THE INFLUENCE OF POLITICAL INSTITUTIONS AND POWER ON OPEN GOVERNMENT DATA (OGD): A CASE STUDY OF THE CHILEAN OGD INITIATIVE

A thesis submitted to The University of Manchester for the degree of Doctor of Philosophy (PhD) in the Faculty of Humanities

2017

FELIPE R. GONZALEZ-ZAPATA

Global Development Institute
School of Environment, Education and Development
List of contents

LIST OF TABLES ........................................................................................................................... 7

LIST OF FIGURES .......................................................................................................................... 8

ABSTRACT ......................................................................................................................................... 9

DECLARATION ............................................................................................................................... 10

COPYRIGHT STATEMENT ............................................................................................................. 10

ACKNOWLEDGMENTS .................................................................................................................. 11

ABBREVIATIONS .......................................................................................................................... 13

CHAPTER 1: INTRODUCTION .................................................................................................... 15

1.1. THE EMERGENCE OF OGD ................................................................................................. 15
1.2. OGD FROM A POLITICAL PERSPECTIVE .......................................................................... 17
1.3. RESEARCH AIM, OBJECTIVES AND IMPACT ................................................................... 21
1.4. OVERVIEW OF THE THESIS ............................................................................................. 22

CHAPTER 2: UNDERSTANDING OGD FROM A POLITICAL PERSPECTIVE - A REVIEW OF THE LITERATURE ............................................................................................................................. 25

2.1. INTRODUCTION ..................................................................................................................... 25
2.2. DECONSTRUCTING OGD ....................................................................................................... 25
2.2.1. WHAT IS OGD? ................................................................................................................ 25
2.2.2. STREAMS OF OGD: OPEN GOVERNMENT, OPEN DATA AND GOVERNMENT DATA...................... 27
2.2.3. HISTORY OF OGD ............................................................................................................ 33
2.2.4. IMPACT OF OGD ........................................................................................................... 37
2.2.5. RESEARCHING OGD ....................................................................................................... 39
2.3. RESEARCHING OGD FROM A POLITICAL PERSPECTIVE: A SYSTEMATIC LITERATURE REVIEW .......................................................................................................................... 41
2.3.1. THE POLITICALNESS OF OGD ...................................................................................... 41
2.3.2. SPECIFIC POLITICAL ASPECTS OF OGD .................................................................. 44
2.4. KNOWLEDGE GAPS IN POLITICAL RESEARCH ON OGD ............................................ 51
2.5. RESEARCH QUESTIONS DERIVED FROM THE SLR ....................................................... 56
2.6. CHAPTER SUMMARY .......................................................................................................... 57
# CHAPTER 3: THEORETICAL APPROACH TO UNDERSTAND OGD FROM A POLITICAL PERSPECTIVE

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>INTRODUCTION</td>
<td>59</td>
</tr>
<tr>
<td>3.2</td>
<td>THE INFLUENCE OF HISTORICAL POLITICS ON OGD: HISTORICAL INSTITUTIONALISM</td>
<td>61</td>
</tr>
<tr>
<td>3.3</td>
<td>THE INFLUENCE OF POWER ON OGD: CIRCUITS OF POWER</td>
<td>69</td>
</tr>
<tr>
<td>3.4</td>
<td>CHAPTER SUMMARY</td>
<td>75</td>
</tr>
</tbody>
</table>

# CHAPTER 4: RESEARCH DESIGN

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>INTRODUCTION</td>
<td>77</td>
</tr>
<tr>
<td>4.2</td>
<td>RESEARCH PHILOSOPHY: CRITICAL REALISM</td>
<td>77</td>
</tr>
<tr>
<td>4.3</td>
<td>RESEARCH METHODOLOGY: CASE STUDY</td>
<td>79</td>
</tr>
<tr>
<td>4.4</td>
<td>SELECTED CASE STUDY: CHILE</td>
<td>80</td>
</tr>
<tr>
<td>4.5</td>
<td>RESEARCH METHODS: DOCUMENTARY EXAMINATION AND SEMI-STRUCTURED INTERVIEWS</td>
<td>84</td>
</tr>
<tr>
<td>4.6</td>
<td>RESEARCH ANALYSIS TECHNIQUE: TEMPLATE ANALYSIS</td>
<td>87</td>
</tr>
<tr>
<td>4.7</td>
<td>RESEARCHER’S EXPERIENCE IN THE FIELD</td>
<td>88</td>
</tr>
<tr>
<td>4.8</td>
<td>CHAPTER SUMMARY</td>
<td>89</td>
</tr>
</tbody>
</table>

# CHAPTER 5: PATH DEPENDENCE ANALYSIS OF OGD INSTITUTIONAL TRAJECTORIES

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>INTRODUCTION</td>
<td>91</td>
</tr>
<tr>
<td>5.2</td>
<td>ANTECEDENT CONDITIONS (1990-1994)</td>
<td>99</td>
</tr>
<tr>
<td>5.2.1</td>
<td>INTRODUCTION</td>
<td>99</td>
</tr>
<tr>
<td>5.2.2</td>
<td>THE DIGITAL GOVERNMENT TRAJECTORY</td>
<td>100</td>
</tr>
<tr>
<td>5.2.3</td>
<td>THE TRANSPARENCY TRAJECTORY</td>
<td>101</td>
</tr>
<tr>
<td>5.2.4</td>
<td>THE DATA GOVERNANCE TRAJECTORY</td>
<td>104</td>
</tr>
<tr>
<td>5.2.5</td>
<td>OUTCOME OF THE ANTECEDENT CONDITIONS PERIOD</td>
<td>105</td>
</tr>
<tr>
<td>5.3</td>
<td>CRITICAL JUNCTURE FOR OGD (1995 TO 1999)</td>
<td>107</td>
</tr>
<tr>
<td>5.3.1</td>
<td>INTRODUCTION</td>
<td>107</td>
</tr>
<tr>
<td>5.3.2</td>
<td>THE DIGITAL GOVERNMENT TRAJECTORY</td>
<td>108</td>
</tr>
<tr>
<td>5.3.3</td>
<td>THE TRANSPARENCY TRAJECTORY</td>
<td>112</td>
</tr>
<tr>
<td>5.3.4</td>
<td>THE DATA GOVERNANCE TRAJECTORY</td>
<td>115</td>
</tr>
<tr>
<td>5.3.5</td>
<td>OUTCOME OF THE CRITICAL JUNCTURE PERIOD</td>
<td>117</td>
</tr>
<tr>
<td>5.4</td>
<td>PROCESS OF PUNCTUATED EQUILIBRIUM (2000 TO 2011)</td>
<td>120</td>
</tr>
<tr>
<td>5.4.1</td>
<td>INTRODUCTION</td>
<td>120</td>
</tr>
<tr>
<td>5.4.2</td>
<td>THE DIGITAL GOVERNMENT TRAJECTORY</td>
<td>122</td>
</tr>
<tr>
<td>5.4.3</td>
<td>THE TRANSPARENCY TRAJECTORY</td>
<td>133</td>
</tr>
<tr>
<td>5.4.4</td>
<td>THE DATA GOVERNANCE TRAJECTORY</td>
<td>141</td>
</tr>
<tr>
<td>5.4.5</td>
<td>OUTCOME OF THE PROCESS OF PUNCTUATED EQUILIBRIUM</td>
<td>145</td>
</tr>
<tr>
<td>5.5</td>
<td>INSTITUTIONAL OUTCOME: INSTITUTIONAL FEATURES AND PATH DEPENDENCY FROM THE THREE TRAJECTORIES</td>
<td>150</td>
</tr>
<tr>
<td>5.5.1</td>
<td>INSTITUTIONAL FEATURES OF EACH TRAJECTORY</td>
<td>150</td>
</tr>
<tr>
<td>5.5.2</td>
<td>CROSS-TRAJECTORY PATH DEPENDENCY</td>
<td>152</td>
</tr>
</tbody>
</table>
CHAPTER 8: CONCLUSIONS .......................................................... 271

8.1. INTRODUCTION ........................................................................... 271
8.2. SUMMARY OF EMPirical FINDINGS ........................................ 271
  8.2.1. HOW DO POLITICAL INSTITUTIONS INFLUENCE THE DEVELOPMENT OF OGD IN CHILE? .......... 272
  8.2.2. HOW DOES POWER INFLUENCE THE DEVELOPMENT OF OGD IN CHILE? ............................. 276
  8.2.3. SYNTHESIS OF THEORETICAL FRAMEWORKS AND EMPIRICAL FINDINGS ................................ 279
8.3. KEY CONTRIBUTIONS OF THIS RESEARCH .................................. 281
  8.3.1. CONCEPTUALISATION OF THE INFLUENCE OF POWER AND POLITICS ON OGD ............................ 281
  8.3.2. INSTITUTIONAL ANALYTICAL FRAMEWORK TO STUDY THE INFLUENCE OF POWER AND POLITICS ON OGD ................................................................. 282
  8.3.3. UNDERSTANDING OGD FROM A POLITICAL PERSPECTIVE .................................................... 284
  8.3.4. UNDERSTANDING OGD FROM A HISTORICAL PERSPECTIVE .................................................. 285
  8.3.5. UNDERSTANDING THE SUSTAINABILITY OF OGD INITIATIVES ................................................. 286
8.4. POLICY RECOMMENDATIONS ..................................................... 287
  8.4.1. INSTITUTIONAL POLICY AND FRAMEWORK FOR OGD .............................................................. 288
  8.4.2. PROMOTION OF INCENTIVES AND COLLECTIVE GOALS OF OGD ........................................... 290
8.5. LIMITATIONS OF THE RESEARCH .............................................. 291
  8.5.1. METHODOLOGICAL APPROACH ................................................................................................. 291
  8.5.2. GENERALISABILITY OF FINDINGS AND CONCLUSIONS .......................................................... 292
8.6. FUTURE RESEARCH ...................................................................... 294

REFERENCES ...................................................................................... 297

APPENDIX 1: SYSTEMATIC LITERATURE REVIEW METHODOLOGY ............................. 314

APPENDIX 2: LIST OF RELEVANT DOCUMENTS .................................................. 320

APPENDIX 3: INTERVIEW STRUCTURE .................................................. 322

APPENDIX 4: SUMMARY OF FIELDWORK .............................................. 323

APPENDIX 5: LIST OF INTERVIEWS ....................................................... 324

APPENDIX 6: INFORMATION SHEETS ................................................... 326

Word count: 87,884
List of tables

TABLE 3.1: RESEARCH FRAMEWORK ...................................................................................................................... 76
TABLE 4.1: SUMMARY OF RESEARCH DESIGN ......................................................................................................... 89
TABLE 5.1: RELEVANT POLITICAL EVENTS IN DIGITAL GOVERNMENT IN CHILE (1990-2011) ......................... 94
TABLE 5.2: RELEVANT POLITICAL EVENTS IN TRANSPARENCY IN CHILE (1990-2011) ................................. 95
TABLE 5.3: RELEVANT POLITICAL EVENTS IN DATA GOVERNANCE IN CHILE (1990-2011) .............................. 96
TABLE 5.4: INSTITUTIONAL FEATURES DURING THE ANTECEDENT CONDITIONS PERIOD (1990-1994) ............. 106
TABLE 5.5: INSTITUTIONAL FEATURES DURING THE CRITICAL JUNCTURE PERIOD (1994-1999) ......................... 119
TABLE 5.6: INSTITUTIONAL FEATURES DURING THE PUNCTUATED EQUILIBRIUM PERIOD: STRUCTURAL
PERSISTENCE (2000 TO 2005) AND REACTIVE SEQUENCE (2006 TO 2011) .......................................................... 147
TABLE 5.7: INSTITUTIONAL FEATURES BEFORE THE IMPLEMENTATION OF OGD FROM 1990 TO 2011 .......... 151
TABLE 6.1: RELEVANT POLITICAL EVENTS FOR OGD DURING THE PERIOD 2011-2015 ................................. 168
TABLE 6.2: INFLUENCE OF DIGITAL GOVERNMENT, TRANSPARENCY, AND DATA GOVERNANCE INSTITUTIONAL
FEATURES ON OGD .............................................................................................................................................. 195
TABLE 7.1: SUMMARY OF CP APPLIED TO THE DEVELOPMENT OF OGD ................................................................. 214
TABLE 7.2: POWER RESISTANCE IN INFORMATION SYSTEMS ................................................................................. 237
TABLE 7.3: NUMBER AND FORMATS OF PUBLISHED OGD DATASETS AVAILABLE IN MARCH 2015 .......... 249
TABLE 7.4: SUMMARY OF FINDINGS FOR THE CIRCUITS OF POWER AND OGD .............................................. 261
### List of figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Bi-directional relationship of influence between OGD and political institutions</td>
<td>18</td>
</tr>
<tr>
<td>2.1</td>
<td>Convergent streams of OGD: Open Government, Open Data and Government Data</td>
<td>27</td>
</tr>
<tr>
<td>2.2</td>
<td>OGD Trajectories</td>
<td>28</td>
</tr>
<tr>
<td>2.3</td>
<td>Political aspects of OGD</td>
<td>45</td>
</tr>
<tr>
<td>2.4</td>
<td>Political influences between OGD and political institutions</td>
<td>54</td>
</tr>
<tr>
<td>3.1</td>
<td>Conceptual framework for OGD institutional analysis</td>
<td>60</td>
</tr>
<tr>
<td>3.2</td>
<td>Historical institutionalism through path dependence analysis</td>
<td>66</td>
</tr>
<tr>
<td>3.3</td>
<td>Institutionalisation model based on symbolism/materialism of institutions</td>
<td>67</td>
</tr>
<tr>
<td>3.4</td>
<td>Circuits of Power framework</td>
<td>70</td>
</tr>
<tr>
<td>4.1</td>
<td>Presidential terms during periods of study for path dependence analysis and OGD</td>
<td>84</td>
</tr>
<tr>
<td>5.1</td>
<td>Relationship between Chapters 5 and 6</td>
<td>98</td>
</tr>
<tr>
<td>5.2</td>
<td>Timeline of historical events during the critical juncture period (1995-1999)</td>
<td>109</td>
</tr>
<tr>
<td>5.3</td>
<td>Timeline of historical events during the structural persistence period (2000-2005)</td>
<td>123</td>
</tr>
<tr>
<td>5.4</td>
<td>Timeline of historical events during the reactive sequence period (2006-2011)</td>
<td>124</td>
</tr>
<tr>
<td>5.5</td>
<td>Timeline of historical events during the OGD implementation period (2011-2015)</td>
<td>167</td>
</tr>
<tr>
<td>5.6</td>
<td>Institutionalisation process through the Circuits of Power</td>
<td>214</td>
</tr>
<tr>
<td>5.7</td>
<td>Origin of exogenous contingencies for OGD</td>
<td>216</td>
</tr>
<tr>
<td>5.8</td>
<td>Direct agency in OGD in Chile</td>
<td>226</td>
</tr>
<tr>
<td>5.9</td>
<td>Ministry General Secretariat of the Presidency (SEGPRES) organisational chart</td>
<td>227</td>
</tr>
<tr>
<td>5.10</td>
<td>Institutionalisation of OGD in Chile through the Circuits of Power</td>
<td>262</td>
</tr>
<tr>
<td>5.11</td>
<td>Social and systemic integration of OGD</td>
<td>268</td>
</tr>
<tr>
<td>8.1</td>
<td>Conceptual framework for the influence of power and politics on OGD</td>
<td>283</td>
</tr>
</tbody>
</table>
Abstract

Open Government Data (OGD) has been globally promoted as a transformative tool for transparency, governance, economic growth and technological innovation, among other benefits. This one-way direction of influence assumes that OGD has the potential to intervene in political institutions and reshape dominant politics in the public sector; aspects that have dominated the OGD research and advocacy arenas during the past years.

Despite this potentially transformative role, literature suggests that OGD initiatives are also embedded in dominant and long-term political institutions. OGD intervenes in political spaces and is framed by specific bureaucratic practices and regulatory bodies. OGD disclosure also interferes in distribution of power and personal interests derived from the management of public datasets. Hence, to fully understand and implement OGD it is necessary to study the opposite direction of influence: how political institutions and power shape the design, implementation and operation of OGD initiatives. This research gap constitutes the main aim to be fulfilled by this work.

Two theoretical approaches are adopted in this work to elucidate this causality relationship, and which are suitable to understand the politics of digital initiatives: Historical Institutionalism (operationalised through Path Dependence analysis) is selected to understand the influence of long-term historical political institutions on OGD, and is complemented by a self-developed institutionalisation model based on institutional features; and the Circuits of Power theory is used to comprehend the influence of the exertion of power among direct stakeholders involved in the development of OGD in the public sector. These two models constitute the theoretical basis of this qualitative study on the Chilean OGD programme, with findings that provide significant new insights to understand the “politicalness” of OGD.

The first aspect of study is how political institutions influence the development of OGD. Three historical political institutions shape OGD development: digital government, transparency and access to public information, and public data governance institutions. Evidence suggests that OGD follows fairly similar institutional trajectories to those historical institutions, and reproduces their dominant symbolic institutional features related to: using ICTs to project an image of modernity and efficiency, politicising ICT-based initiatives, and promoting short-term initiatives rather than long-term policies. The consequences of this scenario are that OGD has remained weakly institutionalised, and the initiative largely reinforces the institutions it attempts to transform.

The second area of study is how the exertion of power between the leading unit and sectoral publishers influences the development of OGD. Evidence suggests that the leading unit does not have sufficient authority and legitimacy to impose OGD, given the limited standing conditions it holds. Within this context, the leading unit cannot create collective goals around OGD nor embed data disclosure within working practices and routines. As a result, sectoral agencies exert power resistance to OGD disclosure, which leads to a limited institutionalisation of this initiative and diverse levels of compliance and engagement from sectoral agencies participating in OGD.

All in all, this work contributes to the body of knowledge in several aspects. Methodologically, it integrates two relevant political theoretical frameworks within the study of OGD and wider digital technologies. This work also provides a novel institutionalisation model for OGD based on the level of symbolism and materialism of key institutional features, as well as incentives and resources required in this process, and which can be applicable in other contexts. This research also expands the political understanding and empirical work of OGD by underscoring that OGD initiatives are highly dependent on the institutions and agents that intervene in its development. It is thus crucial that these actors are taken into account at the time of designing and implementing OGD initiatives. This analysis concludes that an adequate institutionalisation process is required if OGD is expected to deliver positive outcomes.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Copyright statement

i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=24420), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (http://www.manchester.ac.uk/library/aboutus/regulations) and in the University’s policy on Presentation of Theses.
Acknowledgments

I would like to thank many people who have contributed to the development of this work and supported me during this process. Firstly, I want to thank my supervisor, Richard Heeks, for his support and advice along this four-year journey. His detailed and expert comments and continuous encouragement before and during the PhD have been of invaluable help for completing this research. I will miss our football discussions after the supervision meetings. I wish him, but especially Manchester United, all the best in the future.

I also want to thank the Centre for Development Informatics and its vibrant group of critical researchers and academics for their valuable feedback and insightful discussions about cutting-edge research on ICT4D. Thanks also to the Global Development Institute (former IDPM) and its staff (in particular the BWPI corner on the second floor) for giving me the opportunity to share my work with many great researchers in Manchester and at different conferences in the UK and abroad.

I express my deepest gratitude to the National Commission for Scientific and Technological Research – CONICYT – and its scholarship programme “Becas Chile”, from the Government of Chile, for funding my studies and my stay in the UK.

I would also like to thank all the people from Chile and Latin America who anonymously accepted to share their views on OGD and their experiences in this field in Chile with me. Special thanks and admiration to the vibrant OGD Latin American community and the great work they carry out in promoting transparency, democracy and social justice through OGD, which have been sensitive areas for the development of the region for many years.

During this academic journey I had the chance to meet brilliant researchers in academic conferences from all over the world. Special thanks to all of them who constructively criticised my work at UKAIS ’14, IFIP 9.4 ’15, IODC ’15 and ’16, CeDEM ’16, CDI and GDI work-in-progress seminars. Their feedback has improved this research in a significant way.

In Manchester I met some wonderful people and made life-long friends. I am very thankful to all of them, and fully acknowledge that without their support the last four years would have been far less amusing. In particular, thanks to Amanda, Daniele and Gaby (the Completo Italiano family!) for our funny times, great lunches and for the laughs and encouragement in the difficult moments during these years. I wish that our friendship endures wherever we may be. Special mention to the friends from the Chilean community in Manchester, and all the activities and parties that made me feel at home.

I want also to thank my family in Concepción. To my parents Ricardo and Jacqueline, and my brother Esteban, thanks for your continuous support and for teaching me that hard
work and humbleness are the key to fulfil dreams and to do something that may be of value to others. I acknowledge that the great opportunities I have had in my life have been mostly because of the efforts they have made. Thank you also for encouraging my interest in politics and public affairs, which led to devote this research to a sensitive public issue, and which will also drive my future career back in Chile. I would also like to thank to my German family, for their support and for making Lennep home during the last years. Certainly one of the best experiences of this time abroad has been to share this journey with them.

Finally, I want to thank Daniela, my partner and friend. I never expected to meet her at the early stages of this work back in 2013. However, she quickly became the most important support I could have ever had to complete this research. Thanks for her endless patience and unconditional care and encouragement, for caring for so many details during these years while I was focused on making progress, and for the great work she did in proof-reading this thesis from the beginning to the end. But most importantly, thanks for being brave and accepting the challenge to move to Chile to work for our future. I am sure having completed this work is only one step more in the wonderful life we will have together.
## Abbreviations

Below a set of common abbreviations used in the thesis are outlined for reference:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
<td>Circuits of Power</td>
</tr>
<tr>
<td>CPLT</td>
<td>Consejo para la Transparencia (Council for Transparency)</td>
</tr>
<tr>
<td>CSOs</td>
<td>Civil Society Organisations</td>
</tr>
<tr>
<td>FCI</td>
<td>Fundación Ciudadano Inteligente (Smart Citizen Foundation)</td>
</tr>
<tr>
<td>FOI</td>
<td>Freedom of Information</td>
</tr>
<tr>
<td>GD</td>
<td>Government Data</td>
</tr>
<tr>
<td>HI</td>
<td>Historical Institutionalism</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>IS</td>
<td>Information Systems</td>
</tr>
<tr>
<td>MDGU</td>
<td>Unidad de Modernización y Gobierno Digital (Modernisation and Digital Government Unit)</td>
</tr>
<tr>
<td>OD</td>
<td>Open Data</td>
</tr>
<tr>
<td>OG</td>
<td>Open Government</td>
</tr>
<tr>
<td>OGD</td>
<td>Open Government Data</td>
</tr>
<tr>
<td>OGP</td>
<td>Open Government Partnership</td>
</tr>
<tr>
<td>PD</td>
<td>Path Dependence Analysis</td>
</tr>
<tr>
<td>PRYME</td>
<td>Programa de Reforma y Modernización del Estado (Reform and Modernisation of the State Programme)</td>
</tr>
<tr>
<td>PSI</td>
<td>Public Sector Information</td>
</tr>
<tr>
<td>RTI</td>
<td>Right to Information</td>
</tr>
<tr>
<td>SEGPRES</td>
<td>Ministerio Secretaría General de la Presidencia (Ministry General Secretariat of the Presidency)</td>
</tr>
<tr>
<td>SLR</td>
<td>Systematic Literature Review</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction

“In the 21st Century, information is power; the truth cannot be hidden; and the legitimacy of governments will ultimately depend on active and informed citizens”

– Barack Obama

1.1. The emergence of OGD

With the expansion of information and communication technologies (ICTs), several aspects of the social, economic and political life have been shaped by new digital technologies. In particular, the public sector has seen how the extensive adoption of ICTs has shaped state-society relationships, from public service delivery to new opportunities for democracy, participation and collaboration. During the past ten years, the sector has observed how ICTs have shaped the way citizens can access public data, with particular emphasis on the availability of machine-readable public datasets in open licenses and with sufficient granularity to make governments more accountable and transparent. This initiative is known as Open Government Data (hereafter referred to as OGD).

Along with other movements pushing for new and participatory governance models, such as the open government trend, OGD puts the right to access to information at the political forefront globally by claiming that citizens should have access to detailed data to assess the performance of their governments, to explore new business and entrepreneurship opportunities, and to improve public service delivery (Janssen et al. 2012). Nonetheless, the foundational rationale for OGD is that data produced and held by governments belong to the governed, thus they should have direct access to those valuable public assets. By opening up public datasets, this movement targets the reduction of information asymmetries between citizens and their states, as public data is a public good of high political value:
“Open [government] data is data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike.” (Open Knowledge Foundation 2012)

Although OGD is a relatively new initiative, it is founded upon trajectories that influence its purpose and extent. In particular, OGD is the intersection of three broader movements: open government (OG), the political movement promoting transparency, collaboration and participation of civil society; open data (OD), the technological aspect related to data infrastructures, formats, and interoperability frameworks that define access to public data; and government data (GD), the bureaucratic aspect of OGD related to the use of digital technologies to shape public service delivery and policy-making processes (Gonzalez-Zapata and Heeks 2015).

These streams also have a relevant role in defining the meanings awarded to OGD initiatives, which help understand the increasing advocacy and political momentum observed in the OGD arena (Gonzalez-Zapata and Heeks 2015). There are four broader meanings awarded to OGD: political, related to the right of citizens to access public data, in order to make governments more accountable and transparent; bureaucratic, linked to the improvement of public service delivery via advanced manipulation of public datasets; technological, associated with the development of technical public data infrastructure, data reuse policies and enhanced data governance practices; and economic, related to the economic benefits delivered through innovation and new services derived from public data manipulation.

Given both its foundational streams and nature, OGD is a political rather than only a technological initiative. This politicalness can be understood as a bidirectional relationship: OGD can shape existing political and bureaucratic institutions as information asymmetries are reduced, empowering civil society and relatively disempowering stakeholders inside the public sector. By contrast, existing political forces and institutions can also shape how OGD initiatives are designed and implemented as these initiatives are rooted in existing political institutions and power interests. Institutions can thus have an impact on the potential transformative role awarded to OGD. The study of OGD from a political perspective constitutes the wider focus of this work.
1.2. OGD from a political perspective

Understanding OGD from a political perspective can be addressed by determining how OGD initiatives are related to politics and political institutions. This analysis can be depicted as a bi-directional relationship of influence. As Figure 1.1 shows, OGD can play a transformative role by reshaping politics through altering power relationships and political institutions. In return, politics may also have a relevant role in defining the extent and impact of OGD, as power and political institutions may determine how OGD initiatives are developed in a certain institutional context. As the figure shows, these bi-directional relationships of influence of power and politics can occur at different levels: between OGD and local political institutions (micro level); between OGD and local society (citizens and CSOs, meso level); and between OGD and regional/international organisations (macro level). The complex political environment in which OGD is placed draws different levels of political influence, which likely determine the capacity of OGD to reshape political institutions, and the extent to which political institutions determine the particular way OGD is implemented.

The transformative role awarded to OGD relies on its potential to reduce information asymmetries as public agencies have to open up their records to the governed; a process which ideally transfers power from the few (public sector) to the many (civil society) (Heeks 2016). By disclosing OGD, governments empower civil society and other agents interested in using public datasets, through the relative disempowerment of public agents who produce and hold this data (Davies 2014; Kucera and Chlapek 2014; Janssen et al. 2012). Additionally, OGD disclosure can trigger data-related policies and activities that may have a relevant influence on local political institutions, such as the creation or improvement of transparency and accountability strategies, or the optimisation or development of new public service delivery, among others. The political impact produced by OGD has been one of the key drivers for its promotion by international organisations and CSOs, in particular in countries which still show signals of undemocratic practices, corruption cases, and constrained civil societies. In these political contexts, OGD promises to make governments more democratic, accountable and participatory (McGee and Edwards 2016).
Nonetheless, the expected political outcomes of OGD and its potential transformative power require an understanding of how OGD initiatives are developed in relation to the surrounding political context and institutions in which they are placed. Naturally, OGD initiatives have to deal with local political institutions as they require the relative disempowerment of sectoral public agencies, in order to empower citizens and other related stakeholders. Hence, OGD initiatives intervene in political spaces, affect political and personal interests, and are framed by existing and long-term political institutions. OGD initiatives also have to deal with local CSOs and tech-savvy citizens, who use OGD and exert political pressure to push governments to implement OGD initiatives. Furthermore, OGD initiatives have to deal with regional and international organisations, which have a relevant role in defining standards and exerting pressure on member countries to adopt OGD initiatives. This three-level political environment may have a relevant role in the particular ways OGD initiatives are planned, implemented and operated, hence having a determining role in the extent of the impact they can deliver. Two aspects of particular interest emerge from the literature with regard to the political nature of OGD, as well as the influence of politics on its development: the role of power
and the role of political institutions in shaping the development of OGD (for a more detailed analysis of these and other aspects see section 2.3).

Preceding initiatives around the foundational streams of OGD highlight the politicalness of data disclosure processes. For example, e-Government initiatives are significantly shaped by political institutional frameworks, hence initiatives likely replicate existing rules, routines, norms or power relations (Braunschweig et al. 2012; Ahn and Bretschneider 2011; Yang 2003; Fountain 2001). Hence also, political institutions have an ultimate role in the way these initiatives are carried out. Related to the management of public sector information (PSI), data governance practices necessarily intervene in sectoral shares of power, and affect data ownership and personal interests within public organisations. Too often, civil servants are empowered or legitimised by the data they gather, manage and disclose, but public datasets also contain valuable information about the effectiveness of public service delivery, levels of expenditure, and other relevant political information. Public data is, indeed, a valuable political asset.

Given the political value attached to public sector information, OGD initiatives are tools to empower citizens while relatively disempowering public agencies. The process of relative disempowerment may alter existing power spaces awarded by the ownership of public data. Consequently, OGD initiatives may face significant resistance within the public sector, often interacting with broader objectives towards the development of open government and initiatives such as participation, collaboration and transparency (Peled, 2011). In certain institutional arrangements public agencies have to participate in OGD, although, if given the opportunity, they would not get involved in data disclosure processes (Backhouse et al. 2014). OGD practitioners may hesitate to free valuable datasets that define their political status, authority and legitimacy within public agencies (Peled 2014a). Additionally, public agencies often use datasets to bargain with other agencies and to strengthen their position in the local political landscape. Hence OGD can produce politically unfavourable conditions that push agencies to give away their valuable information for free (Peled 2011). In these cases, OGD initiatives require the leadership of empowered agencies that have sufficient authority and legitimacy to deal with public agencies’ resistance to OGD, align sectoral interests, and unlock institutional constraints, in order to facilitate the implementation of OGD.
Along with the power issues that emerge from public data disclosure, OGD is also framed by specific political institutions and trajectories, which may have a determining role in how these initiatives are developed, and the extent of impact they deliver. Davies and Bawa (2012) highlight that OGD initiatives are essentially interventions in political spaces. The political nature of OGD requires an understanding of these initiatives in the context of policy, bureaucracy and political institutions. For instance, OGD initiatives may be deployed through existing political institutions, which are regulated by Freedom of Information (FOI) acts (such as “open by default” or “open by design” policies), and driven by dominant rationales for data disclosure. Additionally, the incentives and resources driving OGD development may also be subject to existing institutional arrangements, such as digital government budgets or political priorities, among others. All in all, OGD initiatives are embedded in existing political institutions that may facilitate or constrain their development.

These two aspects – power and political institutions – reflect the political nature of OGD interventions, and the relevance of understanding OGD from a political perspective. If OGD is to be transformative, policy makers and researchers need to better understand under which political dynamics OGD initiatives are developed, what particular power interests are affected, and how institutional frameworks either facilitate or constrain OGD initiatives. Having a more detailed and critical picture of the influence of politics on OGD would facilitate the development of more realistic and accurate OGD policies according to the political context they are embedded in.

However, empirical academic research on OGD has been mostly focused on the first direction of this relationship; the influence from OGD towards politics and political institutions. This emphasis is due to the concern of practitioners and researchers to justify advocacy, political support and economic resources for OGD. In contrast, little attention has been paid by empirical academic research to understand the opposite direction, i.e. how power and political institutions may be shaping OGD initiatives. This even though, as presented above, there is a generalised perception that political institutions matter in OGD. OGD initiatives are embedded in existing and long-term political institutions, which are widely related to dominant political interests, the exertion of power and the value of public data disclosure. This research gap constitutes
the main purpose of this research (a more detailed analysis of this and other research gaps related to OGD from a political perspective are presented in section 2.3 through a systematic literature review).

Therefore, the focus of this thesis is to elucidate how existing political institutions and power influence the development of OGD. This analysis is of relevance given the increasing political support and resources allocated to the development of OGD initiatives, but which often do not consider the institutional frameworks that host data disclosure processes; how OGD intervenes in political spaces, power positions and political interests, which in turn may define the conditions upon which OGD initiatives are developed. Given the relevance of these institutional frameworks, they may have an important role in shaping the extent of impact that OGD initiatives are delivering to date.

1.3. Research aim, objectives and impact

The literature overview and problem definition presented above reveal the wider knowledge gap in relation to the influence of political institutions and power on OGD in academic literature. This section outlines the research aim, objectives and general impact, all of which have been derived from a detailed and systematic literature review (SLR) presented in section 2.3. These elements are presented here with the purpose of providing a general introduction to the work developed throughout this research.

Given the limited knowledge about the role of political forces in OGD, this research aims to more clearly understand how political institutions and power have influenced the development of Open Government Data (OGD) initiatives. Chile has been selected as single explanatory case study (see justification in section 4.4). The three main objectives subsumed within the scope of this project are:

**RO1: To identify a suitable framework to analyse the influence of politics on the development of OGD**, providing an adapted and apposite version to conduct empirical research that examines the political practices and forces shaping OGD initiatives, applicable within the Chilean and other contexts.

**RO2: To understand how political institutions have influenced the development of OGD**, studying historical political processes and institutional trajectories under which
OGD development has occurred and how they have affected the way OGD has been implemented and adopted.

**RO3: To understand how power has influenced the development of OGD**, identifying the political actors, processes and power relationships involved in OGD development to analyse how different types of power facilitate or constrain the implementation of OGD initiatives.

The impact of this research can be summarised in three main aspects. Firstly, this research may be of interest to an academic audience due to the current research movement around OGD, specifically considering that just a few attempts to conduct a political analysis about these initiatives have been carried out to date. Secondly, lessons from the Chilean experience can be helpful to other transitional or developing countries in terms of what best practices are required to carry out OGD successfully at a macro-level strategy or policy level; e.g. what types of political institutions are required for OGD development, and which ones are supporting or discouraging the implementation and use of OGD. Finally, understanding OGD from a power perspective can help identify the key micro-level practice dynamics by OGD practitioners to effectively address the politics of data disclosure and to identify an adequate institutional framework to materialise this initiative; i.e. how can politicians and bureaucrats be involved in OGD to maximise its support and data provision. Further contributions of this work are presented in section 8.3.

### 1.4. Overview of the thesis

Bearing in mind the research gaps and aims illustrated above, as well as considering this introductory section, this work is organised in eight chapters.

Chapter 2 provides the theoretical foundations to understand OGD from a political perspective. Following a top-down approach, this chapter presents a broader conceptualisation of OGD, as well as the foundational streams that constitute OGD as we know, identifying the relevance of understanding OGD from a political perspective. Subsequently, a systematic literature review is conducted to scrutinise and constructively criticise the most relevant literature related to the politicalness of OGD,
identifying several research gaps in this topic. This analysis sets out the key aims and objectives related to the influence of historical political institutions and power on OGD development to be pursued in this work.

The selected analytical frameworks to understand OGD from a political perspective are presented in Chapter 3. Two theories are selected and explained in this chapter: Historical Institutionalism (HI), in order to understand how political institutions influence OGD, and the Circuits of Power (CP), in order to understand how power affects OGD. In particular, this chapter explains how HI is operationalised through Path Dependence Analysis (PD), as well as how it is complemented by an institutionalisation model based on the symbolism and materialism of the key institutional features.

The methodological aspects that frame this research are explained in Chapter 4. This chapter reflects on the ontological perspective of this work, and presents the key methodological decisions to answer the research questions. Specifically, it explains why Chile is selected as single case study, how the interviewing process involving 55 key OGD stakeholders was conducted, and the relevance of using Template Analysis to process and interpret these interviews.

The empirical work focusing on Historical Institutionalism is presented in Chapters 5 and 6. This theory involves an in-depth examination of key institutional trajectories, covering a relatively long period of time and a large number of data sources. In order to facilitate the analysis, this work has been divided into two levels of analysis. Chapter 5 presents a historical overview of the foundational institutions of OGD through PD analysis between 1990 and 2011, and examines the dominant institutional paths and features that characterise these institutional trajectories in Chile. Based on this evidence, Chapter 6 provides a historical overview of OGD in Chile between 2011 and 2015, and presents an analysis of how pre-2011 key institutional paths and features have influenced OGD development in Chile.

The empirical evidence and analysis in light of the Circuits of Power is presented in Chapter 7. This chapter analyses OGD by considering the role of organisational power in its institutionalisation process, and reveals how implementers and publishers interact.
Introduction

according to the broader institutional framework that determines their legitimacy, authority and access to resources.

Finally, *Chapter 8* provides a set of conclusions for this work. This chapter illustrates the contribution of this work to the larger literature on OGD, explores both its limitations with regard to the adopted methodological approach and the generalisation of findings, provides practitioners with implications related to the broader institutional framework for OGD as well as the fostering of sectoral incentives and appropriateness, and outlines a future research agenda that may follow from this study.
Chapter 2: Understanding OGD from a political perspective - a review of the literature

“*The government [is] extremely fond of amassing great quantities of statistics. These are raised to the nth degree, the cube roots are extracted, and the results are arranged into elaborate and impressive displays. What must be kept ever in mind, however, is that in every case, the figures are first put down by a village watchman, and he puts down anything he damn well pleases.*”

– Sir Josiah Stamp, 1880-1941

2.1. Introduction

This chapter provides the theoretical foundations and research gaps that frame the research questions to be answered in this document. With the research focus being on the influence of politics on OGD, this chapter presents a detailed review of core OGD concepts, foundations and expected impact, while it also reflects on the politicalness of open data disclosure. A systematic literature review is presented, in order to identify key research gaps and to understand the causal relationship between power, politics and OGD at both global and Chilean levels. This chapter is organised as follows: section 2.2 introduces core concepts of OGD and its historical context worldwide and in Chile; section 2.3 presents OGD from a political perspective; section 2.4 identifies knowledge gaps in political research of OGD; and section 2.5 introduces the research aim and questions derived from the systematic literature review.

2.2. Deconstructing OGD

2.2.1. What is OGD?

Over the past few years a global movement has emerged across developed and developing countries pushing for openness and transparency in the public sector, with the aim of getting governments closer to their society and increasing citizens’
Understanding OGD from a political perspective - a review of the literature

participation, accountability, and innovation, among others (Davies et al. 2013; Ubaldi 2013). Unlike other initiatives, this movement focuses on the release of public data online; i.e. day-to-day datasets produced by public agencies, which record the design, implementation and operation of public policies, and are published on public websites where citizens, civil society, private and public sector can make use of them freely. Although there is an economic rationale supporting this movement as public datasets are funded by public taxes and therefore they should be available to tax payers and civil society, the ultimate justification relies on the right citizens have to actively know and get involved in how their governments perform (Davies and Bawa 2012; Janssen et al. 2012; Davies 2010). This initiative is called Open Government Data (OGD).

Formally, OGD is defined as datasets produced and managed by the government and its public bodies, which are made available to third parties to be freely used, modified and shared and in open licenses and machine-readable formats (Heusser 2013; Janssen et al. 2012; Davies 2010). These characteristics awarded to OGD have gained strong advocacy from different civil society organisations (CSOs), international organisations, and governments across different continents, with particular emphasis on promoting democratic global values such as transparency, participation and collaboration (Yu and Robinson 2012; Lathrop and Ruma 2010; Michaelis et al. 2010); public service delivery efficiency (Huijboom and Broek 2011); better business opportunities (Linkedgov 2010); and technological innovations (Heusser 2013); among others.

These values and expected outcomes from OGD have a strong connection with the three convergent streams which are the basis of OGD (see Figure 2.1): open data (OD), focused on the technological aspects of data disclosure; open government (OG), a socio-political movement and a new governance model which promotes higher levels of transparency, and civic participation by opening up national or sub-national governments; and government data (GD), or the role public sector information (PSI) plays in public service delivery. This conceptualisation suggests that OGD has been approached from four main perspectives, from which drivers, benefits and barriers related to the nature and purpose of OGD have arisen: technological (related to OD), political (related to OG), bureaucratic (related to GD) and an emerging focus on economic development. These meanings and approaches to OGD have produced dissimilar design policies and
implementation outcomes across the world (Gonzalez-Zapata and Heeks 2015; Gonzalez-Zapata 2013).

Figure 2.1: Convergent streams of OGD: Open Government, Open Data and Government Data
Source: Own elaboration

2.2.2. Streams of OGD: Open Government, Open Data and Government Data

Scholars identify that three different but convergent streams have shaped OGD, each with different origins and purposes. All of these streams have enriched current public data disclosure initiatives: open government, open data, and government data (see Figure 2.2). Based on the researcher’s observations of the three streams, this section reflects on their origin and how they were preceded by long-term initiatives that may help explain their current direction and meaning. It is acknowledged that other interpretations of the link between the precedents and the driving forces of OGD may exist. However, this section rather looks at providing further historical evidence to explain how OGD has been developed to date.
2.2.2.1. Open data

The first relevant stream is the open data movement, which represents the technological perspective of OGD (Cabinet Office 2012; Yu and Robinson 2012; Barros 2011; Michaelis et al. 2010). This concept has been largely accepted as a technological-based stream to publish data via the Internet, and which has been applied across different disciplines. The fundamental rationale of OD is allowing the reuse of datasets without requiring further permissions (Kalampokis et al. 2011), in line with the technical principles suggested by Malamud (2007) and Berners-Lee (2012). This stream reflects on the technicalities of data disclosure (from online publication of raw data to sophisticated ways to link these datasets under interoperability frameworks), as well as the political position about the rights and monitoring role of civil society in public data control. This approach has been widely applied in different areas, such as the public sector, the private sector, civil society organisations, and international organisations, among others (Chan 2013; Linkedgov 2010). This movement also comprises technological advances around public or private data management, and therefore incorporates specific platforms, licenses, formats, systems or any other methodological aspect related to the full availability of datasets. Consequently, the OD movement (along with PSI advocates) has provided a technological emphasis on the development of OGD (Gonzalez-Zapata
Deconstructing OGD

and Heeks 2015). Technical procedures for data disclosure are relevant aspects of OGD initiatives. OGD can thus be regarded as an example of technological innovation.

2.2.2.2. Open government

The second relevant stream is the open government movement, which represents the more political root of OGD and which reflects on the role that public data disclosure has in transparency and civic participation processes.

a) Precedent of OG: FOI regulation

The historical basis of OG is rooted in the promulgation of Freedom of Information (FOI) acts. FOI regulation has been conceived as mean to ensure access to public information by civil society and the governed: governments should release public data, which has traditionally not been accessible to the society, by proactive (agencies actively publish public data without any particular request from civil society) or reactive (governments are required to release public data given civil society’s request) means. FOI laws have played an important role in making governments more accountable and transparent, considering the potential value of public information to exert civic control over public sector performance (Carter 2014; Robinson et al. 2009). In practice, FOI laws materialise a framework that regulates the right of civil society to access information held by the government (Fumega and Scrollini 2014; Janssen 2012). The FOI movement started in Sweden in the 18th century, and spread in western countries from 1950 onwards as part of the increasing empowerment of civil societies in monitoring governments’ performance and claiming specific rights to access public data (Janssen 2012). The long historical trajectory of secrecy in public affairs and post war undemocratic regimes across the world created a political momentum which saw that access to data held by governments was of high public value (Janssen 2012).

From a political perspective FOI regulation only determines the rights and some formal procedures to access public data, but it does not make particular provisions on how and with which means data is manipulated and presented: most of the data disclosed by FOI regulation is accessible in formatted documents (e.g. .pdf or .docx, among others). These formats require time-consuming processes to transform datasets in meaningful and manipulable forms, as well as reduce the risks of being handled with different objectives.
and procedures than defined by the source (Janssen 2012). In respect to OGD, open datasets represent a step forward in terms of accessibility of public information.

FOI regulation and Right to Information movements (RTI) represent a foundational political basis for the OG stream given its focus on citizens’ rights over public data. Both legal and social advances in transparency introduced the specific permissions, procedures, and rights to be carried out, in order to access public data in practice (Heusser 2013; Yu and Robinson 2012). Most of the OG and OGD literature acknowledges FOI laws as part of the foundational institutional framework under which OGD may be implemented (Fumega and Scrollini 2014; Ubaldi 2013; United Nations 2013).

b) The development of OG

During last 20 years civil society has advocated for closer, more transparent and more participatory governments, as traditional governance models have been increasingly eroded (Ramírez-Alujas and Dassen 2014). The open government movement pushes for opening up public service delivery and decision-making processes to citizens and civil organisations, with the purpose of increasing transparency and civic participation (Meijer et al. 2012; World Bank 2012a; Yu and Robinson 2012; McDermott 2010). Philosophically rooted in Freedom of Information (FOI) regulations (given its focus on openness and transparency), OG took particular shape with Obama’s directive in 2008, which proclaimed a new governance relationship between American citizens and their government based on the principles of transparency and civic engagement (Obama 2010). The introduction of openness practices in the public sector has gathered increasing interest from CSOs and international organisations, quickly spreading the concept of OG across the world. The increasing political momentum has led several governments to share good practices and define standards for open government initiatives (Meijer et al. 2012; Lathrop and Ruma 2010). So far, this movement has been formalised through the Open Government Partnership (OGP) – an international organisation with more than 80 members which promotes OG public policies and standards to be implemented by countries at national and sub-national levels through the enactment of OGP action plans (OGP 2013b). Within this context, OG initiatives (and therefore OGD) are thought of as interventions in political spaces (Davies and Bawa
Hence, OGD has to be seen within the context of relationships between communities, citizens, technicians and politicians with power (Ramírez-Alujas and Dassen 2014; Janssen 2011a).

The OG movement has enhanced OGD by emphasising the civil right of accessing public data as an enabler of higher levels of openness and collaboration between civil society and public bodies. The politicalness of OG has served as political platform for OGD policies as core innovative practices to shift state-society relationships based on increased levels of access to public data. Additionally, the formalisation of OG in several countries through OGP action plans has provided a political basis for OGD, as several countries have assumed political commitments to implement OGD initiatives as part of their action plans. Indeed, OGP has acted as a positive force in spreading and institutionalising OGD across the world, and continuously requests its country members to promote access to public data in open formats as an enabler of further OG policies and strategies. OGD thus represents one of the pillars of the OG movement.

2.2.2.3. Government data

Finally, government data represents the bureaucratic perspective of OGD, which reflects on governance practices that determine how public agencies manage public data (Heusser 2013).

a) Precedent of GD: E-Government

One of the foundational aspects of data management within the public sector is the implementation and use of digital technologies. Considered simply as the “use of ICTs in the public sector” (Heeks 2006, p.3), e-Government reflects the emphasis on modernising public service delivery through ICTs to increase its efficiency, effectiveness and quality at a strategic, tactical and operational level, crossing the whole public sector scope of action (Heeks 2006). The development of e-Government solutions is rooted in the New Public Management (NPM) ideology, where the focus resides on seeing public service delivery as expressions of efficiency and efficacy within the public sector (Cordella 2007; Heeks 2006; Heeks 2002). Succeeding in the development and use of these e-Government systems requires specific emphasis on better data management.
practices in the development of socio-technical IT solutions, awarding data governance practices a relevant role in e-Government agendas (Heeks 2006).

However, being at the ideological core of e-Government solutions, most of NPM’s efforts are concentrated on increasing efficiency and efficacy of public service delivery, while other democratic purposes such as better and more equal state-society relationships or civic participation processes are rarely included – under the neoliberal view of NPM, citizens are seen as service consumers and not as a political individuals. In any case, e-Government represents the radical incorporation of ICTs in the management of public sector information (PSI), having a foundational role in how the public sector values and manages public data.

b) The development of GD

With the public sector being the single largest collector, user, holder and producer of information about citizens, organisations or public service delivery (Heeks 1999); data management is an important aspect of public governance models: data is a powerful resource for staff at all levels and for all public activities such as managing resources, executing functions, measuring performance and providing public service delivery, and therefore the management of public data directly affects the effectiveness and efficiency of governance (Janssen 2011a; Heeks 1999). Specific legislation on the reuse of public information such as FOI or dedicated data governance strategic plans has reinforced this movement. An example is the case of Europe and the PSI directive, which has legally strengthened how public data is managed by public agencies (Janssen 2011a).

The public value and organisational power enclosed in public data has caused several issues with regard to public data management practices. For instance, the public sector has traditionally seen data in light of secrecy and concealment, as a source of either sharing of power or bad practices (corruption, leakage, nepotism or bribery, among others), and where data should be kept hidden from the public eye (Yu and Robinson 2012; Robinson et al. 2009). Moreover, the quality and formats of data have commonly not been standardised, reducing the possibility of reuse and constraining the potentially relevant knowledge that can emerge from the manipulation of raw data (Braunschweig et al. 2012; Zuiderwijk and Janssen 2012b; Davies 2010).
The GD movement (also accompanied by PSI advocates) has introduced a bureaucratic emphasis on the development of OGD, with a special focus on the technical and political management of public data. The rationale of reducing bureaucracy sustains the relevant role awarded to the value, quality and standards of OGD – although not always implemented in practice. The need of data governance practices to enhance the management of public data disclosure pushes OGD to also be a managerial innovation.

2.2.2.4. Political aspects emerging from OD, OG and GD

The convergence of these three streams (OD, OG, and GD) articulates the conditions for the development and spread of OGD worldwide. Despite most of the literature suggesting that OG represents the political root of OGD, different political issues emerge from the management of public data or the way technological innovations are deployed within the public sector: for example, public data represents a valuable resource for public service delivery, and hence issues about its ownership and meaning influence how keen agencies are to engage with OGD initiatives. Furthermore, OGD is embedded in existing institutional structures such as regulatory frameworks, strategies and culture that may have facilitated or constrained the way public agencies participate in OGD. In any case, OD, OG and GD have a strong political foundation, and therefore politics and the exertion of power may play a relevant role in the way OGD is planned, implemented and operated. Each of these stages comprises a set of political elements related to people, technology and institutional frameworks that may have a relevant role in determining the rationales and decisions about how public data is disclosed.

2.2.3. History of OGD

Having defined what OGD is and the streams that constitute its meaning, nature and purposes, this section provides a brief overview of the historical progression of OGD in the global and Chilean context. Specifically, the history of OGD in Chile is expanded upon in Chapter 6, which provides a detailed analysis of the historical progression of OGD in the country.

2.2.3.1. Worldwide

Although social movements had been advocating for higher levels of online public data disclosure for years, the emergence and spread of OGD as we know it nowadays can be
dated to 2008 with the emergence of the OG agenda. The OG movement promoted the introduction of openness as basis for a new governance model, pushing not only for higher levels of data disclosure but also for a shift in state-society relationships based on increased accountability, citizen engagement and empowerment processes (Lathrop and Ruma 2010; McDermott 2010; Malamud 2007). Historically, the concept is seen as having emerged in December 2007 when a group of thinkers and activists of the Internet held a meeting in Sebastopol, California, with the aim of defining the concept of open public data and to suggest it to US presidential candidates (Malamud 2007), and with a particular emphasis on introducing similar philosophies in public data to those observed in the open source movement (Chignard 2013). In operational terms, OGD emerged as part of the US and UK open government programmes, with the launch of dedicated OGD websites holding datasets from a wide range of areas of interest in public policy. While the US OGD platform was launched in May 2009, the British government developed its OGD platform in January 2010. With the political leadership of both governments, these OGD initiatives represented the first attempt to proactively release public data in machine-readable and open formats, and also to foster its reuse and spread.

With the development of these initiatives, the US and the UK governments partnered with eight other countries in 2011 (Mexico, Brazil and Norway among them), and created a formal multi-lateral organisation pushing for openness standards and practices across the world known as the Open Government Partnership (OGP) (OGP 2013b). Currently made up of 75 active members, OGP has been one of the most relevant and influential promoters of design and implementation of standardised openness practices in the public sector to date. Member countries of the OGP have to develop action plans with specific commitments to operationalise initiatives around OG principles, with digital technologies being enablers of these policies (Ramírez-Alujas and Dassen 2014). Among different initiatives, OGD has been widely promoted as part of the member countries’ commitments manifested in OGP action plans. Indeed, OGP has served as a platform to formally introduce OGD initiatives. Simultaneously, international organisations and activists have also promoted the development of PSI regulation to foster the reuse of public data by public agencies and other third parties (Janssen 2011a). Unlike the OG movement, PSI advocacy promotes the value of public data within
the public sector as a means to increase efficiency and effectiveness in public service delivery.

The apparent internal enthusiasm observed in the public sector through OGP action plans has also been reinforced by external pressure from CSOs to improve public data disclosure during several years. For instance, different civil society organisations have promoted the role ICTs can play in opening up governments through the use of public data. This is the case with pressure from tech-savvy organisations, which have approached OGD with a technological emphasis, such as interoperability norms, linked data, or web technologies, among others (Open Knowledge Foundation 2011). Organisations such as the Open Knowledge Foundation, the Open Society Foundation or the World Wide Web Foundation have been pushing for OGD policies with a strong focus on political rights in transparency and participation, as well as the way technologies are used to achieve those principles (International Transparency 2013; Open Knowledge Foundation 2012; Hogge 2010). Other civic technology organisations such as Ciudadano Inteligente (Chile), Data.uy (Uruguay) or Sunlight Foundation (USA), among many others, have been leading regional and global advocacy for OGD. Finally, some international organisations have also advocated for this social movement, such as the United Nations (2013), the World Bank (2012a) and the Organisation for Cooperation and Economic Development (OECD) (Ubaldi 2013).

This brief historical overview reflects on the role of the three streams of OGD in the development of the social movement in online public data disclosure; the OG movement has pushed governments to assume public commitments to open up their practices and information; the OD movement such as tech-savvy and global organisations has pushed technological means and civic rights to support this openness process; and the GD movement has promoted legal frameworks to regulate the reuse and management of public data by public agencies.

2.2.3.2. Chile

The development of OGD in Chile has followed a similar trajectory to the global movement. From the OG perspective, Chile officially enacted the right of access to information through a Constitutional reform in 2005, which incorporated a dedicated clause on the transparency of public affairs (Poblete 2009). As this modification did not
include a comprehensive framework to operationalise the right to access to public information, Chile promulgated its FOI law in 2008 (CNC 2008b) which comprises active and passive transparency procedures – Chile was one of the last countries in Latin America to join the global trend for transparency. The Chilean FOI law enhances the access to public information right by creating the Council for Transparency, an independent institution which monitors FOI compliance. Additionally, the Central Government created the Commission for Transparency, a public agency responsible for promoting the implementation of transparency principles in the Central Government (Iglesias 2011). Having this institutional framework, the Chilean government decided to join the OGP in 2011 as part of the second cohort (OGP 2013a), and consequently developed an action plan that incorporated the commitment to develop an OGD platform. The Chilean government launched its OGD website in 2012, being the first regional country to have a dedicated Central Government OGD initiative. The OGD website currently hosts 3,000 datasets from a wide range of areas such as education, health, internal affairs or tourism, among others.

The operationalisation of the OGD initiative is led by the Modernisation and Digital Government Unit of the Ministry General Secretariat of the Presidency (SEGPRES) which is responsible for coordinating the development of public polices among all the ministries of the Chilean Government (Gonzalez-Zapata 2013). This Unit is the continuation of a sustained strategy to incorporate digital government initiatives in the Central Government – Chile being one of the leading countries in digital government in Latin America. The allocation of OGD to this Unit reflects the bureaucratic meaning awarded to the initiative by the Central Government (Gonzalez-Zapata 2013). The Chilean OGD movement has also been promoted by the activism of tech-savvy organisations such as Ciudadano Inteligente, Poderopedia or Derechos Digitales. These CSOs have advocated, to a higher or lower extent, increased civil society participation and openness practices in the Chilean Government. These organisations have developed their own apps, hackathons and tech conferences to promote the use and reuse of public data and to develop apps based on public datasets. More importantly, they have played a key role as infomediaries by adding value to the already released datasets (Gonzalez-Zapata 2013; United Nations 2013). The activism of these organisations
highlights both the technological and social meaning awarded to public data disclosure for the purpose of increasing democratic or civic engagement by using digital technologies (Gonzalez-Zapata 2013).

Similar to the international trajectory of OGD, the Chilean OGD initiative is the convergence of different political meanings and perspectives regarding the value of public data and the role it may play. In general, two relevant aspects emerge from the Chilean OGD context: a strong bureaucratic value awarded to OGD by the public sector, and the political value conferred to the disclosure of public data by CSOs. In both cases, politics and power have also played a relevant role in the development of OGD to date (Gonzalez-Zapata 2013).

2.2.4. Impact of OGD

The relevance awarded to OGD nowadays is largely based on the promise to deliver positive impact from public data disclosure in sensitive areas of public interest. Different authors suggest that OGD may have a positive impact on public service delivery, transparency and accountability, technological development and economic innovation, among others. At the same time, some negative impact associated with data disclosure are also identified, and which may be constraining the progression of OGD. Four types of impact can be identified from the literature (Gonzalez-Zapata 2013): bureaucratic, technological, political and economic impacts.

OGD can generate bureaucratic impacts. Positive impact may emerge through data-intensive public policy making. OGD may encourage the improvement of public sector performance by providing more efficient services through new practices in the management of public data and its reuse, or by providing evidence to allocate resources and public policies (Kucera and Chlapek 2014). By applying OGD standards, public agencies have to improve data governance practices, in order to ensure minimum quality standards in data disclosure and exchange. Additionally, data disclosure in open and machine readable formats creates new opportunities for the production of public knowledge by crossing different datasets (Janssen et al. 2012). However, OGD disclosure may also produce negative effects. As public datasets embed social values and social privileges, OGD may promote existing value structures which are represented in data,
and thus reinforce dominant interests leading to the replication of social inequalities (Johnson 2014). Another negative operational impact is the little attention paid to the cost of producing public data, whilst advocacy has been concentrated on the open and free access to OGD, which may affect the sustainability of OGD initiatives in the long term (Peled 2011).

Apart from bureaucratic influence, OGD may also lead to the delivery of technological impacts. The OGD agenda focuses on the design and implementation of an enhanced data infrastructure that facilitates the adoption of “open-by-default” or “open-by-design” OGD strategies. This view on OGD reflects the role public data has as a public asset, and the need to design OGD policies based on robust data infrastructures that have appropriate resources and long-term strategies to ensure its correct functioning. The introduction of OGD policies may also enhance existing interoperability frameworks, formats and technical standards that allow generation of public value from government data (Janssen et al. 2012). However, the emphasis on OGD portals (Davies et al. 2013) may also exacerbate existing divides by disregarding the socio-technical aspects of OGD implementation, i.e. OGD requires a nuanced approach that not only considers the infrastructure, but also IT skills, access and specific knowledge to manipulate and take full advantage of open datasets. This may lead to a new digital divide where already empowered agents take advantage of OGD over traditionally marginalised groups (Gurstein 2011).

Another relevant aspect is how OGD may deliver political dividends. Most of the global advocacy for OGD highlights that public data disclosure facilitates the implementation of transparency, accountability, inclusion and empowerment processes (Davies et al. 2013). Under this perspective, OGD may empower civil society to make the government more accountable and transparent through the co-creation of public services or active monitoring tools in sensitive areas such as decision-making processes or public expenditures, among others (Kucera and Chlapek 2014). OGD may also help reduce existing power imbalances produced by asymmetric information, bringing new stakeholders into politics and opening up greater spaces for participation to traditionally marginalised fractions of the population (Davies 2010). Nevertheless, OGD may also create adverse incentives and limit space for free discussion in politics as data can be
controlled or manipulated prior to their disclosure, or may reproduce existing power asymmetries since OGD is mainly used for non-binding political engagement with citizens (Davies et al. 2013; Ballingall 2011).

Finally, OGD may produce dividends on innovation and economic development. In terms of positive impact, OGD may increase entrepreneurial activities of private innovators in the creation or improvement of public services, or the delivery of new private products and services with social and economic value (Linkedgov 2010). The use of OGD by third parties can increase economic growth and entrepreneurship as the public sector allows third parties to generate profits through the use of public datasets (Heusser 2013). However, the economic emphasis on OGD may also bring negative consequences, such as the expansion of existing economic ideologies that look at reducing rather than expanding the state. This is the case of the UK OGD programme which has been implemented in order to expand the dominant neoliberal economic rationale. Bates (2013a) suggests that the UK government has actively promoted OGD with the aim to reduce the role of the state by outsourcing public service delivery, often observing citizens as a market rather than political individuals.

This section highlights the broad positive and negative consequences attached to the implementation of OGD. Besides the bureaucratic, technological, political and economic impact, there is an underlying presence of power and politics in the delivery of impact from OGD, in particular related to the value attached to public data by all relevant stakeholders.

2.2.5. Researching OGD

Along with increased advocacy and political momentum for OGD, researchers have also shown a growing interest in better understanding OGD initiatives, which are either directly related to OGD or to its foundational streams (OG, OD and GD) (Charalabidis et al. 2016; Zuiderwijk et al. 2012). The number of publications on these topics has been growing over recent years, as has the number of research groups and international organisations being interested in understanding OGD (Safarov et al. 2017).

However, academic research has mostly focused on OGD impact and socio-technical barriers, with particular emphasis on initiatives and case studies in the global North. In-
depth research often focuses on understanding how OGD may impact public sector efficiency, transparency and openness (Charalabidis et al. 2016; Davies et al. 2013; Zuiderwijk et al. 2012). While this literature covers relevant political aspects of OGD development, it does not fully reflect on how existing politics may affect this process. Furthermore, thanks to the novelty of OGD, research has widely focused on understanding the socio-technical barriers and implications of OGD development, but giving insufficient attention to the political issues associated with the development of OGD (Davies et al. 2013; Zuiderwijk et al. 2012). Additionally, whilst there has been an expansion of research focused on the Global South (carried out by organisations such as the Web Foundation, the Latin American Initiative for Open Data – ILDA, the GovLab, and academic researchers, among others), most of existing academic literature studies OGD development in the Global North.

Notwithstanding the relevance of studying OGD impact and socio-technical barriers, the review presented in previous sections underlines the importance of understanding both the political foundations of OGD as well as the role awarded to power and politics in the development of OGD initiatives. As highlighted, OGD is part of a long historical political trajectory to open up the public sector. Thus, political institutions may have a relevant role in shaping the way these initiatives have been developed over years. Their influence is critical to understand the types and extent of impact that OGD initiatives deliver, the current availability and quality of datasets they comprise, or the political support awarded to OGD, among several other issues related to the political understanding of public data disclosure. The relationships related to stakeholders involved directly or indirectly in data disclosure processes have an essential foundation: the political forces influencing how new political ICT initiatives are embraced by the public sector and civil society (Ahn and Bretschenider 2011; Bale 2008; Markus 1983). These political processes have to be understood considering how countries vary in social, political and economic terms; i.e. political forces are context-dependant (Hickey 2013) and therefore local impact of global political tendencies might materialise and have an effect on OGD in diverse ways. In order to more clearly identify the politicalness of OGD, as well as specific literature gaps related to politics and OGD, this work incorporates a systematic literature review (SLR) which is conducted in the following section.
2.3. Researching OGD from a political perspective: a systematic literature review

With the focus of this research being on understanding OGD from a political perspective, a systematic literature review is conducted to identify the politicalness of OGD as well as key political aspects of OGD development. This process identifies key research gaps in the literature on the role of power and politics in OGD, which serves as a basis to determine the objectives of this work. The methodological approach followed for the SLR is described in detail in Appendix 1. Furthermore, background literature is included in this analysis to complement the insights derived from the SLR, and which reflects on the politicalness of other ICT-related initiatives.

2.3.1. The politicalness of OGD

OGD is currently one of the most vibrant of ICT innovations promoted worldwide within the public sector (Heusser 2013; Davies 2010), pushing government and civil society to rethink the way they interact based on the social value enclosed in public data. The growing advocacy and political relevance awarded to OGD in digital agendas across countries (Davies et al. 2013) has also led to a significant increase in the interest from researchers and academics to understand the socio-technical barriers and benefits related to OGD disclosure. Considering the progression of OGD, its stakeholders and also its historical foundations (FOI, OG, OD and GD, among others), evidence suggests that OGD has a strong political basis (Davies and Bawa 2012). With OGD being a political ICT initiative within the public sector, its planning, implementation and operation processes may follow a similar trajectory to other innovations related to the management of public information, the introduction of digital technology in governments, transparency (FOI acts), or openness, among others.

Background literature, which is not included in this SLR, also shows how politics and political forces affect innovation in ICTs more generally. In the case of e-Government initiatives, Fountain (2005; 2001), adopting a neo-institutional analysis to develop her enactment framework, suggests that e-Government efforts will replicate existing rules, routines, norms or power relations. She concludes that political institutions are the most relevant factors in explaining how ICTs are designed and implemented by the public sector. Yang (2003) strengthens this position, claiming that e-Government is indeed
political-context dependent, but also expands Fountain’s work by pointing out that e-Government can also reshape political institutions. From a different perspective, Ahn and Bretschneider (2011) suggest that e-Government initiatives are socio-political context-dependent, and e-participation and democratic institutions depend more on legal reforms than technological innovation. Different authors state that institutions and political processes matter to successfully implement e-Government initiatives (Cordella and Iannacci 2010; Schwester 2009; Cordella 2007; Heeks 2006; Heeks 1999): literature agrees that innovation in ICTs in the public sector needs to be contextualised within political, cultural and economic dimensions, and therefore these factors play a relevant role in the design, implementation and operational processes of ICTs.

The SLR conducted for this research reveals relevant insights regarding the politicalness of OGD, in line with the aforementioned evidence on other digital interventions in the public sector. For instance, Peled suggests that politics may affect the successful implementation of OGD (2011). In the case of the US OGD programme, just a few civil servants and public agencies were keen to develop and implement the OGD agenda, clashing with other political interests. According to Peled, the resistance to OGD across the US government contradicts the existing agenda for transparency and collaboration with civil society. The relevance of this analysis is that the disclosure of valuable public data is a way to redistribute power that is enclosed in public datasets. If OGD attempts to be transformative, it has to redistribute power from the few (public data owners) to the many (civil society and others), and this process ultimately affects political interests. However, Peled’s research only focuses on the number of disclosed datasets and does not investigate in-depth the social, cultural or political reasons that determine the observed lack of commitment from different agencies. Nonetheless, Peled’s evidence reflects on the relevance of power relationships among different stakeholders to understand local OGD environments.

In line with these reflections, Davies and Bawa (2012) illustrate that OGD initiatives are necessarily interventions in political spaces. The authors highlight that intervening in political institutions and interests requires understanding OGD in the context of power, politics and bureaucracy: OGD initiatives influence the relationships between state and non-state agents, and hence politics and political organisations may play a significant
role in the way OGD is developed. However, Davies and Bawa also claim that nowadays much of the promotion of OGD has sought to downplay the role of politics, while focusing more on benefits and technical issues rather than the relationships between communities and power (2012). This analysis leads to the conclusion that current research on OGD has not fully taken into account that OGD initiatives are affected by political formations due to different polities, power and institutions, all of which are shaped by local social, political and economic institutions.

Few research projects have looked at understanding the causal relationship between politics and OGD to date. An example for research in this area is Jo Bates’ work on the national OGD agenda in the UK. Through a Neo-Gramscian analysis, Bates shows how OGD was implemented through a trasformismo process; e.g. how the collective of civil society actors was transformed by the inclusion of some of their members within the OGD agency (Bates 2013b; Bates 2012). Her work helps understand how the radical rationales around OGD tend to be watered down and co-opted by the political elite, and provides an example of how dominant institutions can shape the OGD arena. In the case of the UK, there is an assumed model of absorption by a static political hegemony, instead of seeing a mutual shift in perspectives and agendas by civil society and state. This has constrained the participation of more democratic views in OGD, and its implementation has been driven by a neoliberal perspective on public service outsourcing through OGD.

From a political perspective, Yu and Robinson (2012) argue that studying OGD implies the necessity to separate the OG and OD domains. This study suggests that the political elements of OGD are related to the OG sphere, whilst the technological ones relate to the OD arena, producing two separate worlds with different motivations, procedures, outcomes and institutional roots. The authors suggest that OG policies have blurred the line between the technologies associated with OD and the politics of OG. This analysis fits to previous literature on OGD origins and foundational streams, and also highlights the political nature of OGD; i.e. how the adoption of particular technologies is shaped by the politics of the institutions that host them. Being a socio-technical innovation, OGD’s political side cannot be isolated from its technical and bureaucratic perspectives.
In line with Yu and Robinson’s point of view, Jetsek et al. (2013) argue that OGD creates public value when the openness component is involved in a synergistic relationship with resource governance, capabilities in society and technical connectivity, generating economic and social outcomes in efficiency, innovation, transparency and participation. Their view is directly linked to the influence of the institutional context on OGD: OGD may deliver public value according to existing political trajectories and institutions. Whilst their view represents a more holistic perspective of OGD and political institutions, they do not emphasise the political relationships and forces affecting this synergy, which may likely lead to different agendas, implementation processes and the delivery of impact.

In summary, existing theoretical literature on OGD reflects on the relevance of understanding OGD from a political perspective. As presented above, there is agreement that political institutions matter in OGD. Indeed, OGD is embedded in existing and long-term political institutions, which are widely related to dominant political interests, the exertion of power and the value enclosed in public data disclosure. However, evidence suggests that to date little attention has been paid to empirically understand the politicalness of OGD. This area thus represents an interesting and valuable research gap in academic literature.

### 2.3.2. Specific political aspects of OGD

While the preceding section looks to prove the connection between OGD and politics in general terms, this section exposes specific aspects related to the politicalness of OGD which are derived from the SLR process. From a political perspective, OGD is perceived as an innovation which intervenes in the political arena, and which affects particular political interests, power distribution and existing political institutions within a given context. Based on this premise, a set of key topics emerge as part of conducting a political analysis of OGD including openness, transparency, empowerment, the role of public information, the exertion of power and the political institutionalisation of OGD (see Figure 2.3). These constructs have been derived from the literature with the purpose of operationalising the politicalness of OGD, and represent a partially inductive and partially deductive approach to understand what the politicalness of OGD means in practice. Initially, these aspects were inductively concluded based on the literature.
analysed in this work. Afterwards, these constructs were analysed against the same literature in order to clarify how they helped conceptualise the politicalness of OGD. Additionally, further literature related to transparency or ICTs in the public sector was used to reinforce some of the conclusions provided below according to each analytical theme.

One interesting reflection revealed by the SLR is the relationship between the bureaucratic and political aspects of OGD: in general, literature selected in this SLR highlights both the political and bureaucratic aspects of OGD. This emphasis may lead to the conclusion that in the bureaucratic aspects of OGD there are also relevant political issues to address, such as the value of public data, how power is exerted within the public sector or how OGD is politically institutionalised (Peled 2014b; Jetzek et al. 2013; Janssen 2011a). However, as the SLR reveals, most of the conclusions about the politicalness of OGD stated in the selected academic literature have no empirical basis and, instead, rely on theoretical conceptualisations of OGD. Further details of the SLR process can be seen in Appendix 2.

With regard to the political aspects of OGD, the first aspect to consider is the level of openness attached to OGD initiatives. The relevance that openness has achieved around
the world during the last years has also spread to different areas such as open development, open government, and OGD. Tkacz (2012) concluded in his analysis of openness that politics has evolved over the last years given the values that civil society attached to openness initiatives. For the author, democracy means openness, and therefore open innovations (such as OGD) are political processes too; the more open the government, the more democratic and transparent it is (Meijer et al. 2012; Lathrop and Ruma 2010). Likewise, Maier-Rabler and Huber (2011) discuss how OGD may change the relationship between citizens, public administration and political authority. They conclude that open initiatives should be seen within the context of political processes such as citizens’ participation and decision-making; i.e. OGD would only be valuable if it facilitated the participation of civil society in political decision-making. However, the study does not consider to what extent these processes may affect power distribution. The findings could have provided broader insight if the author had considered how democratic innovations, such as OGD, may lead to more democratic political institutions and how these may affect power issues in data disclosure processes.

Transparency and accountability emerges as another relevant political aspect of OGD. In the broader context of transparency and ICTs, literature and evidence agree that the use of innovative technology may change the transparency and accountability field (Avila et al. 2011). In the openness context, ICT-based transparency initiatives facilitate the materialisation of transparency initiatives, reducing costs of implementation as well as increasing the empowerment of civil servants and civil society (Meijer et al. 2012; Perini 2012). ICT-based transparency initiatives may help empower traditionally marginalised fractions of society to make governments more accountable, leading to enhanced monitoring of corrupt practices and more accountable behaviour. However, this way of implementing transparency may have negative side effects such as more sophisticated ways of corrupt practices, limited space for free discussion in politics or the promotion of surveillance of citizens by the state (Ballingall 2011; Murray 2011). Considering these positive and negative effects, literature suggests that ICT-based transparency (such as OGD) should take into account governance issues and political forces (Caidi et al. 2014; McGee 2011).
In line with the reflections made in the previous paragraph, OGD is highly advocated and promoted as a new enabler of transparency that may reshape state-society relationships. Indeed, transparency and accountability are the most recurrent drivers promoted by NGOs, international organisations and other interested agents in the use of public data (Boyera and Iglesias 2014; Denis and Goëta 2014). Governments have assumed the commitment of passing FOI regulations (acknowledged to be foundational for OGD) with different political trajectories and outcomes (Fioretti 2010). With regard to this, Fumega and Scrollini (2014) (in the Latin American context) suggest that OGD can also be seen as an indicator of democratic consolidation across the region, in particular against the background of the increasingly significant role of transparency-related civil society organisations in leading the regional OGD agenda. However, the mere publication of public data online is only part of a transparency process (Peled 2012), and can be undermined by local political expressions (Peled 2011). For example, data must fulfill certain levels of quality (format, size and accessibility) and relevance (value, manipulation and representativeness), in order to facilitate the implementation of comprehensive transparency agendas. Additionally, data disclosure itself does not reflect functional transparent states, unless these initiatives are combined with strategies to technically handle datasets, channel public interests towards political institutions, and to facilitate civil society’s interpretation of these datasets beyond mere online availability (Denis and Goëta 2014; Fumega and Scrollini 2014).

Another key aspect of the political understanding of OGD is its relation to the empowerment or disempowerment of stakeholders. With one of its foundations being the right to information movement, OGD has been adopted to promote inclusion, empowerment and civic engagement (Heusser 2013; United Nations 2013), modifying traditional power imbalances produced by asymmetric information and bringing new and traditionally marginalised actors into policy debates (Carter 2014; Ubaldi 2013). Hence, OGD (as a form of e-governance) can be considered as a valuable channel for enhancing citizen empowerment and engagement (Ubaldi 2013; Meijer et al. 2012); not only by providing new information to citizens, but also by incorporating them into the policy-making processes as co-creators of data or collaborators in the design of public policies (Davies 2010). The empowerment of citizens through OGD inevitably requires
the relative disempowerment of traditional public data owners in the public sector. Additionally, data disclosure itself may involve empowering units leading OGD, in order to make other public agencies engage and disclose public data (Peled 2011). These premises are reinforced by developed and ongoing research on the topic, which suggests that up to now evidence on OGD and empowerment remains insufficient (Boyer a and Iglesias 2014). However, experts also see a potential new “digital divide” where data will empower the already empowered (Gurstein 2011), and where technological innovations will benefit the people with access to these new ICTs (those who have IT skills, accessibility, processing tools, etc.).

Another political aspect on OGD is how public sector information (PSI) is valued inside and outside public agencies. Literature claims that OGD has become some kind of religious dogma, i.e. OGD per se is perceived as valuable and more radical advocates do not anticipate the costs of production and disclosure of data (van Veenstra and van den Broek 2013; Peled 2011). In terms of the concrete value of public data, public servants may see information as their source of power (Cole 2012; Janssen 2012), and therefore highly politicised environments may make them cautious about disclosing datasets given likely negative effects for them or their political superiors (Peled 2014b; Zuiderwijk and Janssen 2014; Zuiderwijk and Janssen 2012a; Peled 2011). Peled also suggests that OGD models often take for granted that government bureaucracies are aligned to implement OGD initiatives with low effort, without considering that data release entails processing information with electronic means (and therefore that resources, information skills, access to hardware and software and IT infrastructure are required) (Peled 2011). Furthermore, the creation and production of public data is usually an expensive process (in terms of time, cost and technical infrastructures), and agencies can feel reluctant to release data for free, especially if they use datasets as bargaining power when dealing with other agencies (Gurstein 2012; Peled 2011).

Another aspect that emerges from a political viewpoint is how different actors exert power in the development of OGD both inside and outside the public sector given the value that is enclosed in public data. Internally, public servants may manipulate the OGD policy agenda depending on how much power they can exert based on the value of datasets they manage (Caidi et al. 2014; Cole 2012; Peled 2011). In certain situations
managers (and their agencies) are required to participate in OGD although, given the opportunity, they would not otherwise get involved in the initiative (Backhouse et al. 2014). Usually, the type information stored in computers defines which organisational parties will gain or lose power (Peled 2014b). Those agencies which have a more developed computing infrastructure (which is expensive and requires sophisticated knowledge to handle) will govern a considerable part of the organisational resources related to them; computers (and hence data stored in them) convey effective power to those who control them (ibid). Considering that some agencies use public data to negotiate with other public entities, OGD practitioners may feel reluctant to give away valuable information assets that define their political status (Peled 2014a). Furthermore, these issues can be reinforced in developing countries given the potential for increased levels of domestic corruption, patronage networks, limited civil service capabilities and unaccountable politicians immune to electoral pressure (Peled 2011). In conclusion OGD can produce unfair and politically unfavourable conditions that push agencies to give away their information for free, especially in cases when they use datasets to bargain and to position themselves favourably in the local political landscape (Peled 2011). Peled claims that these political problems were present in the US OGD programme, and collided with transparency and collaboration agendas, as public agencies used their political status and information to boycott the OGD agenda (2014a; 2014b; Peled 2011).

Furthermore, power has been exerted from outside the public sector. OGD policies achieved political momentum through the advocacy from international bodies and CSOs, pressing governments to join OGD practices or movements (Fumega and Scrollini 2014). For instance, the OGP has committed governments to develop systematic action plans, where OGD is often one of the foundational policies to be implemented (OGP 2013b). NGOs and active advocates from different arenas (transparency, accountability, and civic technologies, among others) have also demanded opening up public spaces, and have created awareness among local communities and political elites about the benefits of implementing OGD initiatives (Fumega and Scrollini 2014; Janssen 2012). This has been reinforced by existing advocacy trends such as transparency and right to information (RTI) with the purpose of empowering citizens to play an active role in making their governments more accountable (Janssen 2012). However, a significant part
of the work done by CSOs is to bridge the gap between citizens and public agencies to help civil society better understand and manipulate those datasets. These agents, often named intermediaries, have dedicated their efforts to combat information asymmetries between elites and civil society by providing new methods of accessing and interpreting data (World Bank 2012a; Hagel and Rayport 1997). OGD intermediaries follow a long trajectory of advocacy looking at strategically embedding political ICT innovations to influence domestic social and political backgrounds (Welp and Breuer 2014). The influence on OGD exerted by CSOs led governments to co-opt their political discourse. This is the case of the UK OGD initiative which, following a trasformismo strategy, incorporated OGD advocates in the government, in order to implement their neoliberal-oriented OGD agenda (Bates 2013b).

Finally, OGD shows a strong interdependence with local and global political institutions. Different issues related to formal political institutions emerge in OGD initiatives, such as OGD institutionalisation processes, existing regulatory frameworks and institutional trajectories for data management, transparency or digital government initiatives, as well as cultures of accountability and data disclosure, among others. These examples reflect the role that existing political institutions may play in implementing OGD initiatives. Considering the OG foundation of OGD, Harrison et al. (2012) analyse that OG initiatives are strongly linked to existing political institutions in the e-Government agenda as they define rationales and cultures for further adoption of these initiatives, and therefore OGD might follow the same institutional path of this and other institutional trajectories – similar to Fountain’s argument (2001). However, the authors do not distinguish between the foundational differences between e-Government and OG initiatives, and the role openness plays in OG and the development of democratic political institutions. Regarding existing regulatory frameworks, the political trajectory of OGD is partly based on FOI regulation (Janssen 2012), which means that for countries which have adopted transparency routines it is difficult to go backwards and disregard previously institutionalised practices (Ramírez-Alujas and Dassen 2014): FOI regulation may favour the introduction of new advances in access to public data as it sets a basic pro-transparency rationale. This favourable condition is observed in the implementation of OGP action plans, where member countries establish an OG (and OGD) culture that is
difficult to reverse (Manolea and Cretu 2013). Additionally, the practical implementation of OGD requires public policy processes and institutional frameworks (in the form of strategies, decrees or directives), in order to allocate sufficient resources, make OGD less vulnerable to change in political administrations, and to ensure the coordination and collaboration with sectoral agencies. In this way, a consistent data disclosure approach can be implemented (Ramírez-Alujas and Dassen 2014). The increasing interest and expansion of OGD initiatives requires an in-depth understanding about the way OGD is institutionalised, in order to make these initiatives less vulnerable to political changes – shortcomings that have not been addressed to date.

The different political aspects covered in this section reflect on the relationship between political institutions, the exertion of power and the development of OGD. Accordingly, OGD is seen as embedded in a certain political institutional context, and hence existing political institutions may have an impact on the way OGD is being developed. Indeed, much of the advocacy reflects on the capacity of OGD as a transformative tool to reduce power asymmetries, open up public spaces for civil society participation, and to ultimately reshape the governance model to more horizontal state-society relationships. However, the literature has not yet addressed the opposite direction of influence: how political institutions shape OGD. The political aspects of OGD present several issues that open up research opportunities to empirically understand the causal relationship between political institutions and the implementation of OGD. Given the novelty of OGD and the lack of systematic research initiatives, just a few attempts of empirical political evidence have been developed so far. Therefore, relevant research gaps in this field can be identified, as discussed in the following section.

2.4. Knowledge gaps in political research on OGD

The previous analysis shows that there are several aspects in the causal relationship between OGD and political institutions. Yet, there is a significant lack of empirical evidence to understand these dynamics, as the SLR also reveals. Given the limited empirical conclusions that can be made about the politicalness of OGD, there are relevant research gaps in this field, and filling these may help better understand the political framework of OGD and its role in fostering or constraining the delivery of OGD.
impact. The conclusions presented in this section lead to the identification and justification of the main objectives and contribution of this research.

One of the key conclusions obtained from the SLR is the lack of empirical evidence on the political aspects influencing OGD. Given its novelty and the focus on benefits and socio-technical barriers, OGD has not yet been adequately studied from a political perspective to understand the influence of political institutions on its development process. Indeed, most of the existing political research on OGD relies on theoretical studies on the different streams of OGD, and postpones empirical research to confirm the theoretical conclusions about the role of politics in OGD development. Apart from a few exceptions, researchers have mainly focused on defining theoretically what OGD is, what its implications for society are, and also how it should be developed to maximise its potentialities and impact. Guidelines provided by international organisations (such as the UN, OECD, Open Knowledge Foundation, the World Bank or the World Wide Web Foundation, among others) have also reinforced this theoretical stream. Most of the research studies developed so far rely on secondary data, setting aside the relevance of direct evidence from primary sources. Therefore, empirically understanding OGD from a political perspective has been underrepresented in academic research. By identifying the politicalness of OGD, academics and practitioners can better understand the politics of public data disclosure, and develop tailored initiatives according to local institutions and political contexts.

Furthermore, there is a lack of academic research on OGD that focuses on the global South. As the concept of OGD and its implementation have initially been developed in the global North, most of the theoretical assumptions and the limited existing empirical evidence related to the politicalness of OGD rely on initiatives implemented in the developed world – with the American and British programmes being the most studied cases. Despite the emergence of new research programmes for the developing world and a few researchers who have performed theoretical analyses of OG, OD or GD in regional contexts (i.e. Africa, Latin America and Asia), there is still a lack of empirical research to fully understand the politics of OGD in developing countries. Addressing this gap is of relevance given the increasing OGD activity in the global South, as more countries implement OGD initiatives and international organisations promote and
advise governments and local communities on their implementation. Identifying the particular political aspects that determine OGD implementation would help practitioners and researchers in developing countries to better understand OGD in their local social and political contexts.

There are only a few examples of academic research on OGD in the developing world. For example, the Open Data for Developing Countries programme (ODDC) (Davies et al. 2013) focuses on assessing the impact of OGD in developing countries across three domains: political (transparency and accountability), economic (innovation and economic development) and social (inclusion and empowerment). Despite its undeniable relevance, this programme does not consider the influence of existing political institutions on OGD. Additional work on OGD in the developing world is conducted by Boyera and Iglesias (2014), who report that there is an increasing number of actors who work on OGD in the developing world focusing on transparency and accountability of governments. However, they do not analyse the implications of the countries’ political frameworks on OGD, hence lacking an understanding of OGD from a political and power perspective. The Latin American Initiative for Open Data (ILDA) (Scrollini 2014) also developed a series of papers with the purpose of identifying OGD impact delivery in the region, but similar to other projects did not study the politics of OGD.

The evidence provided across this section shows that the political understanding of OGD has been underrepresented in academic research during the period of study. As Figure 2.4 illustrates, there is a bi-directional relationship of influence between political institutions and OGD at different levels. On the one hand, OGD promises to reshape political institutions, empower citizens and CSOs, and make governments more participatory, transparent and accountable. On the other hand, evidence from the SLR suggests that political institutions also have a role in shaping how OGD may be implemented, in particular through existing institutional frameworks and the political interests of those involved at local and international levels. However, as shown in this section there is an emphasis in academic research on the direction of influence from OGD towards political institutions; i.e. most of the political research on OGD focuses on providing theoretical roots to justify its potential impacts, rather than looking for
empirical evidence to prove how political institutions facilitate or constrain the development of OGD. In some cases, such as the exertion of power and political institutionalisation, limited theoretical reflections are made regarding the opposite direction of influence (power and political institutions towards OGD), which does not provide a clear understanding of how and why this influence occurs based on empirical evidence. Since most of the research shows a theoretical rather than empirical emphasis, several reflections have been made regarding the drivers, nature, benefits and restrictions related to OGD, while the political frameworks that determine the extent of implementation and impact of OGD have not been fully studied yet. Based on these considerations, current research gaps in OGD are summarised in four categories:

- **Lack of empirical academic research on OGD from a political perspective**: OGD literature claims that OGD can deliver different political outcomes to improve democracies, bring new actors to the political arena, and ultimately reshape political institutions. At the same time, OGD initiatives are strongly related and influenced by political arrangements and the exertion of power. While most of
the empirical literature focuses on the former, just few studies have been conducted to confirm the influence of political institutions on OGD to date.

- **Lack of empirical academic research with focus on the global South**: Existing empirical evidence on OGD has largely concentrated on the developed world thanks to the leading role of the US and the UK in promoting and disseminating OGD initiatives. However, as the long trajectory of academic research on global development suggests, these results cannot be extrapolated from the developed to the developing world, and have to be contextualised in countries where civil rights, political institutions and economic progression exhibit particular features that should be considered in OGD research.

- **Lack of empirical research to understand the influence of political institutions on OGD**: Evidence provided in the SLR suggests that existing political institutions may have a relevant role in shaping OGD initiatives. OGD is embedded in an existing institutional framework related to regulation of transparency and accountability, political support and implementation of e-Government initiatives, and the value awarded to public information, among other aspects. However, the SLR suggests that there is limited empirical evidence of this influence on OGD so far, as researchers have mainly focused on the impact that OGD may deliver to reshape political institutions. Nonetheless, there are limited empirical conclusions about the role of political trajectories in influencing how OGD has been planned, implemented and operated to date.

- **Lack of empirical research to understand the influence of exertion of power on OGD**: Just few attempts have been conducted so far at understanding OGD from an organisational perspective and how the exertion of power shapes OGD initiatives, highlighting the work of Alon Peled (2014a; 2014b; 2011) and Jo Bates (2013a; 2013b; 2012). These researchers have conducted political research on OGD with regard to the OGD programmes in the US and the UK respectively. However, these countries have more comprehensive support and resources to implement OGD, and their initiatives respond to different rationales and political contexts (the US is closer to a transparency agenda, the UK to a neoliberal one). Hence, results cannot be extrapolated to other countries, which likely face more
conflicts in data disclosure processes than the two countries leading OGD worldwide.

As the research gaps show, there is limited evidence that politics and political forces have a significant role in shaping how OGD initiatives are developed. Hence, the study of the politics of OGD is emergent and a relevant research area that warrants further investigation. This research looks at addressing some of these knowledge gaps in OGD political research – aspects which are explained in the next section.

2.5. Research questions derived from the SLR

Based on the research gaps identified in the preceding section, this work looks at understanding OGD from a political perspective. In particular, this research aims to examine how political institutions and organisational power have influenced the development of Open Government Data (OGD). In line with the research objectives set out in section 3.1, three research questions are subsumed within the scope of this project:

RQ1: What theoretical frameworks can be suitable to understand the influence of politics on the development of OGD? (Derived from RO1) This question is answered in Chapter 3 by analysing theoretical frameworks from political science, sociology and information systems.

RQ2: How do political institutions influence the development of OGD in Chile? (Derived from RO2) This question, addressed in Chapters 5, 6 and 8, looks at understanding how politics has influenced the development of OGD in Chile. This question looks at historical political processes and institutional trajectories which are the foundations of OGD development, and how these have affected the way OGD has been implemented and adopted.

RQ3: How does power influence the development of OGD in Chile? (Derived from RO3) This question, addressed in Chapters 7 and 8, looks to identify the political actors, processes and power relationships involved in OGD development to analyse how different types of power facilitate or constrain the implementation of OGD initiatives.
2.6. **Chapter summary**

This chapter presents a systematic literature review on the political aspects of OGD, identifies key research gaps in the literature to understand OGD from a political perspective, and presents the key aims to be pursued in this research. Insights from the SLR highlight the academic and practical relevance of studying the influence of political institutions and the exertion of power on the development of OGD. As OGD initiatives intervene in political spaces and interests, they are embedded in a particular institutional environment related to transparency, digital government, public sector information, or civil society advocacy, among others. While most of the research and advocacy highlights the influence of OGD on political institutions by opening up political spaces to more democratic, transparent and accountable governments, little attention has been paid to understanding the opposite influence. Specifically, this research addresses the current lack of empirical political research to understand the influence of political institutions and the exertion of power on OGD in the developing world. By understanding the influence of these political dynamics, OGD initiatives can be designed and implemented considering the political issues that emerge in public data disclosure, as well as the historical political trajectories that shape the way these innovations are adopted and operated in a certain polity. Part of the methodological challenge of this work is to identify or develop a suitable framework that studies the role of both power and political institutions in OGD – a task that is addressed in the following chapter.
Understanding OGD from a political perspective - a review of the literature
Chapter 3: Theoretical approach to understand OGD from a political perspective

“Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.”

– Marie Curie

3.1. Introduction

The preceding chapter outlines the relevance of studying how political institutions and power have influenced the Chilean OGD initiative, with three research questions guiding this work. This chapter presents the theoretical framework which is based on an institutional perspective on the politics of OGD, and answers the first research question of this work. Literature on the politics of ICTs suggests focusing on the institutionalisation process of these initiatives, in order to understand the strength and extent of existing institutional arrangements (Fountain 2001), and how historical politics and power affect the institutionalisation of these initiatives. Looking at the politics of ICTs requires studying the mechanisms that lead to the institutionalisation of these initiatives. Literature suggests that institutional theories are suitable frameworks to understand and explain the different dynamics of politics and power in the development and adoption of ICT initiatives. Consequently, this research adopts an institutional analysis for answering the research questions.

Drawing from the research gaps stated in section 2.4 and the specific research questions related to understanding the influence of power and politics on OGD outlined in section 2.5, a theoretical approach that combines institutional analysis with the specific examination of political institutions and power is required. A significant part of the theoretical work at the beginning of this research was to identify a suitable research framework that, from an institutional perspective, distinguishes between the influence of politics and power in OGD. The process of studying, filtering and selecting these
theoretical frameworks led to the conclusion that political institutions and power cannot be condensed within one theoretical framework that successfully helps answer the research questions, and hence they needed to be studied independently. In particular, the study of the influence of political institutions on OGD, i.e. the definition of a specific and context-dependent political environment that may be influencing the development of OGD, requires an understanding of how these institutions were formed over years, and how their particular features and trajectories have progressed. On the other hand, studying the influence of power on OGD requires a focus on data disclosure practices, and how direct stakeholders, who participate in this process, interact and bargain in order to either implement or resist OGD. Therefore, the influence of political institutions on OGD requires a focus on macro-level strategies, policies and long-term political institutions, while the influence of power on OGD needs to study micro-level OGD disclosure practices. Based on this analysis, two different but convergent theories have been selected as theoretical frameworks: how the influence of political institutions shapes OGD through Historical Institutionalism (HI); and how the influence of power shapes OGD through the Circuits of Power (CP). These two theories constitute the conceptual analytical framework to conduct political institutional analysis of OGD in Chile (see Figure 3.1).

Figure 3.1: Conceptual framework for OGD institutional analysis
Source: Own elaboration based on Mahoney (2001) and Clegg (1989)
With regard to the influence of historical politics on OGD, *Historical Institutionalism (HI)* has been used to conduct political institutional analysis. The historical analysis of institutions is operationalised through *Path Dependence analysis* (PD). This theory analyses how historical trajectories are constructed over time, and create a path that likely determines why particular political events occur. By studying these historical events, PD looks for specific patterns of historical behaviour when a new set of events starts; specifically, it looks at critical junctures that change the course of history and create particular institutional conditions under which path dependence is developed and sustained over time. HI and PD capture macro-level strategies, policies and trajectories of historical politics, analysing relevant political decisions which have shaped existing political trajectories and, likely, OGD.

Regarding the influence of power on OGD, the framework *Circuits of Power (CP)* focuses on how power flows, analogous to electric circuits, across a particular organisation and enables the institutionalisation process of a specific policy. As part of this theory, power plays a relevant role in facilitating or constraining the institutionalisation of the objects of study; i.e. the more stable and fluid power flows, the more institutionalised the initiative is. Operationally, the Circuits of Power are composed of three circuits, which comprise a specific type of power each: the episodic circuit that involves causal power (power exerted by one individual over another); social integration circuit that comprises dispositional power (formal and informal conditions to exert power); and the system integration circuit that covers facilitative power (disciplinary techniques to exert power). CP focuses on micro-level internal practices, providing an organisational perspective on how power is exerted in OGD development. Hence, this chapter presents a detailed description of both HI-PD and CP frameworks, and how they are operationalised in this research.

### 3.2. The influence of historical politics on OGD: Historical Institutionalism

As stated in section 2.3, the development of OGD intervenes in political spaces and may be determined by existing political institutions and historical institutional trajectories. These institutions provide the foundation upon which OGD is implemented, and may
Theoretical approach to understand OGD from a political perspective

influence how OGD is being designed, implemented and operated. In order to understand these political trajectories, historical events need to be analysed to trace institutional patterns that may determine how OGD is being developed: revisiting history allows researchers to understand the political circumstances of the past under which OGD has been developed. One of the most accepted ways to conduct political analysis is to focus on political institutions through institutional theory (Lowndes and Roberts 2013; Peters 2011). Over the years, institutionalism has been enacted as a reliable theory to study and understand political processes (Lowndes and Roberts 2013). For this research, Historical Institutionalism is selected (HI) and operationalised through Path Dependence analysis (PD).

Formally, HI is one of the branches of New Institutionalism – a political theory that is based on the assumption that political institutions and previously enacted public policies frame the political behaviour of bureaucrats, elected officials and interest groups during the policy-making process, i.e. they create opportunities and constraints for those involved in policy-making (Béland 2005). HI emphasizes the underlying interactive mechanism that influences an individual actor’s choice of action, and it helps explain how a certain institution of governance is selected (Shih et al. 2012). HI analyses the effects of institutional change along historical trajectories, with particular attention paid to change that is triggered by critical junctures and positive feedback from the institution itself (Pierson 2000a; Pierson 2000b). For HI, history matters to determine political outcomes (Peters et al. 2005). But, what does Institutionalism consist of?

Institutions are usually recognised as the rules of the game, a colloquial way to express that they regulate social life by postulating formal and informal rules and sanctions according to social, rational and historical patterns (Acemoglu and Robinson 2012; Peters 2011; North et al. 2009; Selznick 1996). Institutions are also considered as being resilient given the inherent difficulty to change established social structures. Nonetheless, institutions can alter their trajectories to a certain degree as they face social conflicts and contexts; i.e. they move and are moved by new social structures (Sehring 2007; Koelble 1995). These change processes should also be legitimised as accepted social patterns inside a particular socio-cultural context, which means they
need to be validated by involved agents in order to be applied and disseminated (Hercheui et al. 2012).

Academics conclude that there are two philosophical views on institutions. During XX and XXI centuries different authors have sought to confront the Old and New Institutionalism (Lowndes and Roberts 2013), the former being the basis on which the latter has been conceptualised (Peters 2011; Hall and Taylor 1996). Whilst the “old” version analyses institutions by focusing on rules and formal (written) evidence that determine how these are constructed and adopted, the “new” institutionalism (NI) expands this vision by acknowledging that institutional analysis should also incorporate the informal (non-written) ways in which an institution might be represented. Informal rules such as practices and narratives (discourses) are part of an holistic view on how institutions are created, promoted and accepted (Lowndes and Roberts 2013). In NI, institutions not only reproduce technical and resource demands, but also institutional influences that shape them (i.e. rational myths or tacit legitimated knowledge) (March and Olsen 2013; Peters 2011). Nowadays, NI is one of the most widely-used theories to study political institutions.

However, the analysis of political institutions involves some specific characteristics. For example, Lowndes and Roberts (2013) suggest that political institutions shape actors’ behaviour, strategies, and empowerment through formal and informal means; e.g. political institutions can empower and constrain the performance of actors. Scholars working on institutional analysis suggest that these studies should focus on three modes of social constraint: their rules (formal and recorded), practices (informal and demonstrated) and discourses (semi-informal and spoken).

NI is broadly classified into three different branches, which observe institutions from different perspectives: Rational-Choice Institutionalism (RCI), Sociological Institutionalism (SI) and Historical Institutionalism (HI). RCI suggests that institutions exist since they can reduce uncertainty and boost anticipation of other actors’ behaviour, reducing transaction costs which otherwise emerge due to information asymmetries. SI analyses how institutions influence orientations, anticipations, interests and objectives of actors, and hence how they face and solve problems. Finally, HI is focused on the interaction of polities (political institutions) and politics (the political
processes) within a specific timeframe to explain policies (outcomes). It is commonly used for policy analysis (Sehring 2007). From these three types of NI studies, HI has emerged as the most accepted and suitable branch for analysing political institutions.

However, HI presents a key challenge to methodologically operationalise the idea of revisiting history to understand current political events. Shih et al. (2012) suggest that HI analyses current political outcomes through three variables: the institutional environment as an independent variable, the political behaviour of actors as a dependent or intermediary variable, and the policy outcome as the dependent variable. This analysis requires HI to mainly focus on the big historical picture of structure, instead of the detailed aspects of agency (Peters 2011). Indeed, this approach allows researchers to abstract the details and analyse historical processes as a conglomerate of political events. To conduct this process, HI integrates different analytical elements through Path Dependence analysis (PD), taking into account critical political events that switch institutional trajectories, and the mechanisms that introduce change or stability to those institutional trajectories (Mahoney 2001; Mahoney 2000).

Path dependence analysis claims that outcomes cannot always be explained in terms of short processes or unique and predictable events. In order to understand political processes and events, PD suggests bringing past events back to the present, in order to explain why specific outcomes have been produced over time: in other words, “what happened at an earlier point of time will affect the possible outcomes of a sequence of events occurring at a later point in the time” (Pierson 2004, p.20). This means that preceding steps in a particular direction induce further movement along the same path. When a particular track is chosen the cost of reversal is significant due to this sequence of events, which creates positive feedback. The possibility of further steps along the same path thus increases with each move in that same direction (Pierson 2000b).

The effects produced by PD (specific patterns of timing and sequence) are related to the relative benefits produced by continuing on the same path compared to switching to other possible options (e.g. coming back to previous alternatives) (Pierson 2000a). In this case, the costs of exiting the current activity (and switching to previously plausible alternatives) rise. The increasing cost of switching to a different path, and therefore increasing returns by staying on the same path, are methods for positive feedback which
reinforces undertaken processes and policies (Pierson 2000a; Levi 1997). Consequently, PD distinguishes the influential moments of conjunctures from the periods of stability or minor change that reinforces the selected path (Pierson 2000a).

These moments of conjuncture – known in PD as critical junctures – are the timeframes in which critical events occur. These moments of inflection have the power to switch historical institutional trajectories, leading to new outcomes. In practical terms, critical junctures are the contingent points at which a particular policy is selected from a pool of alternatives, creating incentives to follow the same trajectory in the future by increasing the cost to return to the previous paths. Social, economic or political forces need to converge for such critical moments in history to occur. Hence, not all critical moments in history are, at the same time, critical junctures; as Mahoney suggests, “only those choice points that close off important future outcomes should be treated as critical” (Mahoney 2001, p.113). Critical junctures are also methodologically relevant as they help define a specific timeframe of study, with a particular focus on the key events that trigger institutional change; Mahoney also suggests that “a focus on critical junctures enables historical researchers to avoid the problem of infinite explanatory regress into the past” (ibid). Critical junctures are also similar to what Kingdon (1984) defines as policy windows in his Multiple Streams theory; i.e. the convergence of a problem, a policy and a political willingness to find a solution which opens up an opportunity to introduce change in existing institutional trajectories.

Given critical junctures arise occasionally during history, institutions (usually) face a long process of stability and adaptation to new environmental conditions. During phases of stability, institutions start to become accepted and taken for granted by society, and therefore form part of the political spectrum. As any other open system, institutions have to adapt to changing environments, thus facing periods of change to adjust their trajectories. These periods, known as punctuated equilibrium, represent phases of stability punctuated by moments of change, which alter trajectories (Krasner et al. 1984). In an iterative process of stability and change, institutions often establish mechanisms of reproduction that create a lock-in effect, or in other words, a new course of action is locked into a certain institutional pattern that is difficult to reverse (Mahoney 2001). This effect is facilitated by institutions’ feedback across these processes, which
often reinforces existing trajectories as it reduces the possibilities of drastic change through new critical junctures. The concepts overviewed above (path dependence, critical junctures and punctuated equilibrium) are used by Mahoney to develop an analytical framework which helps operationalise HI (see Figure 3.2). In his analysis, Mahoney suggests a sequence of five aspects:

1) **Antecedent conditions**: historical events which determine available policy options and shape selection processes;

2) **Critical junctures**: choice of a particular policy option above other alternatives;

3) **Punctuated equilibrium**: process of institutional stability disrupted by new critical events. It comprises two levels:
   a. **Structural persistence**: institutional production and reproduction of the selected policy;
   b. **Reactive sequences**: disruptive event(s) that may affect lock-in of the selected option;

4) **Outcomes**: extent to which an institution is adopted due to path dependence occurrence.

![Figure 3.2: Historical Institutionalism through Path Dependence analysis](source: adapted from Mahoney (2001) and Shih et al. (2012))

With the aim of providing a deeper understanding of these trajectories, an institutional study based on the three types of institutions is incorporated in this research. In this analysis, institutions can take different forms such as regulative (regulatory frameworks, laws, decrees or any legally-binding public document), normative (organisational practices, procedures and objectives) and cultural-cognitive (discourses, rationales and
motivations). This framework, as can be seen in Figure 3.3, also provides a method to understand the concept of institutionalisation through the analysis of institutional features. While scholars in institutionalism often mention the concept of institutional features to describe the characteristics that define an institution (see Cumbers et al. 2007; Klijn and Koppenjan 2006; Holthausen 2003), they do not provide sufficient details of the nature of these specific features.

In order to conduct this analysis, we assume that institutional features can be *symbolic* or *material*. In practice, *symbolism* represents the presence of core values in different types of institutions that define an institutional standard, but which do not provide a complete structure for their implementation (such as the constitutional acknowledgement of transparency and access to public information). *Materialism* relates to the development of a comprehensive framework that implements the values represented via symbolic forms (such as the transparency law that defines specific procedures, principles and sanctions to frame access to public information). This theoretical viewpoint suggests that the level of materialism of these features is positively related to the degree of institutionalisation of the trajectories. In contrast, the relative level of symbolism of these features is negatively related to the degree of institutionalisation of the trajectories. Hence, the institutionalisation process can be

---

**Figure 3.3: Institutionalisation model based on symbolism/materialism of institutions**  
*Source: Own elaboration*
understood as the sufficient level of material features of institutions that facilitate their long-term existence, such as binding regulation, long-term strategies and policies, clear procedures and cross-sectoral practices, shared objectives and rationales (Scott 2013; Selznick 1992; Berger and Luckmann 1967). In contrast, short-term institutions can be explained as the dominance of symbolism in existing institutional frameworks undermining their long-term existence, such as non-binding regulation, short-term strategies and policies, unclear or sectoral procedures, and isolated objectives or rationales, all of which foster weak institutional trajectories. Besides, the process of institutionalisation can be understood in this analytical framework as the transition from symbolic to material institutional features that ensure an institution’s existence in the longer term. This analysis argues that this transition occurs in the presence of sufficient political, economic and/or technological resources and incentives, in both material and symbolic forms, which become key components to institutionalise an initiative. Hence, institutionalisation is promoted by the presence of incentives and resources (Scott 2013). In contrast, non-institutionalisation can be understood as a low presence of key resources and incentives. This theoretical framework complements and supplements prior trajectory-based analysis insofar as it provides an analysis of key institutional features that determine the institutionalisation of an initiative, in this case OGD.

The study of innovations in digital technology through NI and HI is a novel and relevant theoretical approach, which has not yet been explored within the context of OGD. The use of HI may lead to the discovery of the origins of the function of information in the public sector, and the political dynamics in relevant institutions such as digital government and data governance that may have a relevant political influence on how OGD initiatives have been developed. For example, Bellamy (Bellamy 2000) suggests that NI may explain the role information plays in public organisations; how institutions shape ways of thinking, values and knowledge, produce specific types of discourses, support particular kinds of meanings and shape human identities and loyalties related to digital technologies. Fountain also shares this institutional view in her Enactment Framework (2001), which provides an institutional and organisational perspective about how information systems are shaped by public sector institutions. However, both authors do not make specific reference to HI or PD analysis to understand this
The influence of power on OGD: Circuits of Power

institutional influence. Consequently, there is a research gap around use of HI (through PD analysis) which can facilitate the understanding of macro-level strategies, policies and long-term historical trajectories. In particular, it provides a powerful methodological approach to understand how OGD policies have been planned, implemented and operated from a historical-political perspective; i.e. how politics and history have shaped the way the Chilean government and civil society have absorbed this ICT initiative according to critical political events and the Chilean political trajectory.

3.3. The influence of power on OGD: Circuits of Power

The study of the influence of power on OGD requires a different approach compared to the previous section. While the study of historical politics (under NI) requires a detailed review of key historical antecedents that may explain what kind of policies have been adopted, the locus of power analysis resides in the understanding of power distribution within the public sector and how agencies deal with the production and exchange of public data. Given the political role awarded to public information, understanding the power relationships between leading agencies and publishers represents a rich source of political evidence, which can help understand OGD policies.

Unlike the historical perspective, the analysis of power in OGD requires an internal point of view – an organisational perspective that facilitates the understanding of power dynamics among the public agencies involved in OGD development. NI does not help understand power issues that emerge during the development of public policies; e.g. it does not clearly focus on the role of agency. Despite its undeniable focus on politics, its core purpose is to analyse historical-political processes. NI hence does not provide a deeper insight into the organisational aspects related to the role of power in OGD, such as authority, legitimacy or specifics forms of power. Consequently, a different theoretical lens, which provides a more comprehensive approach to power dynamics in digital initiatives, is required. The study of power has been a relevant aspect in the research agenda of the information systems area and has been widely covered in literature. One particular theory that has been used in information systems and which emphasises the role of power flowing and shaping the development of IS initiatives, is the Circuits of Power (Clegg 1989).
The Theoretical approach to understand OGD from a political perspective

The Circuits of Power framework (CP) suggests that power flows within an organisation, similar to the flow of electricity, through circuits interconnecting actors and sub-organisations. In this way, power becomes relational as it cannot just be owned, but it is also exercised through social relations which sustain, maintain or transform it (Clegg 1989). With a focus on what occurs within organisations, this framework helps understand the nature of relationship between power, politics and authority in order to achieve collective goals. Like electricity, power is a circulating force but one that flows through social relations, working practices and techniques of discipline (Davenport 2005). CP comprises three distinct circuits: the episodic circuit, the circuit of social integration and the circuit of system integration (see Figure 3.4).

In its most fundamental definition, power “has typically been seen as the ability to get others to do what you want them to, if necessary against their will, or to get them to do something they otherwise would not” (Hardy and Clegg 1996, p.623). Power has been recognised as essential in sustaining and providing stability to social systems (Silva and Backhouse 2003). It therefore does not just relate to the capacity of agents to achieve...
outcomes as is proposed by Giddens (1984), but also goes beyond actions being substantive to maintenance of social stability (Clegg 1989).

Generally, power has been conceptualised in two broad categories: voluntaristic power (Lukes 1974), which focuses on the exercise of power and the interests of individuals (A is exercising power over B when A is affecting B against its interests), and deterministic power, which puts emphasis on how social structures exercise power through a domination strategy and how agents take it as the truth (Foucault 1980; Foucault 1972). From the latter, Foucault developed his concept of disciplinary power, where the exertion of power depends on external surveillance.

The study of power is well covered in the literature. Considering the aforementioned works of Foucault, Lukes, Giddens and Clegg; other theories and thinkers are vital to expand the meaning of power in organisational and political studies. For example, Critical Theory suggests that power distorts communication and stops processes of emancipation (in this case, information systems can be instruments of emancipation by means of empowering actors through the reduction of information asymmetries) (Silva and Backhouse 2003). Furthermore, ideas such as Actor-Network Theory, Structure-Agency Theory and Structuration Theory partially interpret the role of power in social systems. However, Silva and Backhouse (Backhouse et al. 2014; Silva and Backhouse 1997) suggest that none of them can cover the peculiarities of power within organisations, and thus a broader theory is required – one that conceptualises power in all its dimensions. In CP, Clegg incorporates different dimensions of power and it is therefore recognised as a suitable theory to study the power dynamics within organisations (Silva and Backhouse 1997).

Based on this conception of power, Clegg organises his framework through circuits of power. His analysis starts with the episodic circuit, which represents agency and individual actions of power (Silva 2007). This circuit concentrates on agency: agents, through the exertion of power, are capable of controlling resources and establishing alliances to produce their intended outcomes (which are usually tangible, hence making this circuit the most evident one). The episodic circuit is associated with Lukes’ one-dimensional perspective of power (1974), which states that some agents are able to exert sovereign power reflecting Hobbes’ concept of causal power: “A makes B do
something that B would otherwise never do” (Dahl 1957). This type of power can flow through circuits where mechanisms of power (rules, relations and resources) are subject to processes of authority, legitimacy and standing conditions. In Clegg’s episodic circuit, agency (As and Bs) is the most fundamental level of any organisation, and it refers to any decision-making process where “individuals, teams, groups or departments make decisions that authorities within organisations seek to control through disciplinary power; limiting approvals, authorities and actions” (Clegg 1989 in Silva and Backhouse 2003). However, this type of power (As forcing Bs) is never a one-way action, being often contested by Bs’ power resistance (see arrows in both directions in Figure 3.4, episodic circuit). This counter-force is a crucial aspect of power relationships at episodic level.

Despite the relevance awarded by Clegg to the idea of power resistance, a separate theoretical approach that reflects these power dynamics is required as his theory does not clearly outline the different causes of power resistance and forms it may take. From the information systems arena, Markus (1983) suggests that three aspects can cause power resistance: resistance can be people-determined (internal factors associated to people and groups), system-determined (systems factors such as technical design and implementation) or interaction theory-determined (people or groups resist systems because of an interaction between characteristics related to the people and characteristics related to the system). Although these three causes can be applied in the context of information systems analysis, Markus suggests that the latter is the most recurrent cause given its socio-technical and political perspective; i.e. interaction is usually conceived as norms embedded in culture and information systems may be implemented to change the balance of power. The political variant, which looks at the interaction of a system with the distribution of intra-organisational power, appears to be the most likely cause of resistance towards OGD, as it assumes that information systems frequently symbolise the circulation of complex intra-organisational power among the key actors affected by its implementation. Given that resistance plays a relevant role in episodic power, Markus’ framework is incorporated in the episodic circuit for the purpose of this research.

The episodic circuit is completed by studying the special conditions required in power relationships between As and Bs; i.e. As would not be able to exert power over Bs if the
standing conditions (represented by access to organisational, political and economic resources) were not favourable for As. Therefore, agents will only succeed in their power relations if they are able to win the fight of controlling resources with authority, legitimation and access to resources becoming key aspects of these standing conditions. Clegg highlights that these standing conditions are defined by existing rules of meaning and membership, which form the basis of the identity and position of agents within the organisation. For this kind of power, Clegg defines a second and social-oriented circuit.

The social integration circuit of power defines power as a productive action to achieve outcomes. It is based on dispositional power; i.e. the kind of power which provides the necessary conditions to one member of an organisation to induce other members’ behaviour even when it is against their interests (Lukes 1974). In the social integration circuit, the main elements are the organisational rules, which control meaning and membership in organisations and determine specific agents’ standing conditions. Under these conditions, dispositional power is transformed into causal power when agents decide to act; i.e. when they exert power. In this circuit, power is seen as a capacity that can cause something to happen, differentiating between having power and exerting it. Specifically, this circuit comprises two types of rules: rules of membership, or the formal status that awards standing conditions; and rules of meaning, or the discourses and rationales awarded to the system’s use and existence. Both rules of membership and meaning need to fit to each other and be aligned, in order to favour positive social relations and facilitate the occurrence of dispositional power.

In the social integration circuit, Clegg also introduces the obligatory passage points (OPPs), which are the core elements of his theory. In CP, the flow of power is thought to transform the object of study into a mandatory step for agents. Every time an innovation is incorporated into organisations, it generates new meanings, and therefore introduces noise into the circuits of social integration. These meanings (OPPs) permit the formation of alliances and control over resources, which are essential for agents to achieve their outcomes. In the words of Silva and Backhouse, “the outcome of power is the authority (institutionalisation) of OPPs; those are the integration of approved documents, regulations and technology” (Smith et al. 2010; Silva and Backhouse 2003). An
institutionalisation process is successful when OPPs become mandatory for Bs, who do not have any other alternative than the OPP to complete a specific task.

Finally, Clegg incorporates the systemic integration circuit of power into his framework. This circuit represents the organisational capacity to create and accomplish collective goals through techniques of production and discipline which represent facilitative power (Parsons 1967). This approach is what Foucault calls dispositional (working) practices; i.e. the surveillance of organisational members, adopting policies of rewards and sanctions for disciplinary purposes. This circuit reflects that organisational activity depends on the subordination of individuals to achieve collective goals. Clegg also claims that “changes in the systemic integration circuit will entail new agencies, techniques and practices that the circuit of social integration might find difficult to solve” (Silva and Backhouse 1997, p.339). Therefore, the success of implementing new innovations depends on the capacity of managers to translate (through authority) the new rules and norms entailed within the system into facilitative ways (techniques of discipline and production) that the rest of the members can understand, accept and perform. Specifically, this circuit comprises the techniques deployed by As to ensure and monitor Bs’ compliance with OGD, as well as Bs’ working practices and tasks that are affected by the implementation of OGD.

The application of the CP in information systems research has mainly been conducted by Silva and Backhouse (2014, 2012, 2003, 1997). From their perspective, CP is a robust analytical tool given its focus on studying “the way technology affects power relations, but also because it helps us to understand the way information systems can be shaped by power” (1999). Their studies analyse both public and private organisations, with particular emphasis on power dynamics to understand how information systems become institutionalised. Silva and Backhouse are particularly interested in studying how information systems become part of the organisation and are taken for granted by stakeholders. Consequently, they focus on the mechanisms that lead to information systems becoming organisational black boxes. Through CP, these boxes can be opened up, revealing how power influences the institutionalisation of information systems, i.e. how organisations accept and absorb innovations, and the role power relationships play in such processes.
The relevance of CP for this research lies in its insightful approach to understand how power shapes agencies (individuals and organisations). CP provides the inner picture of power flows across agencies which are involved in the development of OGD, as well as the power conditions under which agents interact and that facilitate or constrain OGD institutionalisation. Through CP, micro-level internal practices can be studied. By revealing the specific power dynamics occurring between OGD implementers and publishers, as well as the power conditions under which they act; the nature of the OGD institutionalisation process can be better understood. This approach towards studying OGD development and institutionalisation with regard to the exertion of power not only reveals an internal perspective on how OGD is implemented and institutionalised in Chile, but also complements the historical-political perspective provided by HI to study how political institutional trajectories shaped OGD in Chile during the period of study.

3.4. Chapter summary

This chapter presents a novel and suitable theoretical approach to understand the influence of power and politics on OGD – hence answering RQ1 - and which helps answer the other research questions presented in Chapter 2 (RQ2 and RQ3). Two theoretical frameworks have been selected to study this influence: Historical Institutionalism (operationalised through Path Dependence analysis and complemented by our self-developed institutionalisation model based on symbolism/materialism of institutions) and the Circuits of Power (see summary in Table 3.1). These theories provide different but complementary views on the political aspects that have shaped OGD policy in Chile. While HI studies the role of historical politics and long-term political institutional trajectories in OGD, CP reveals the internal power dynamics that either facilitate or constrain the development of OGD initiatives. The use of these theoretical frameworks requires a comprehensive methodological approach that ensures the correct gathering and analysis of different data sources. These and other methodological details are provided in the following chapter.
Theoretical approach to understand OGD from a political perspective

Table 3.1: Research Framework

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Conceptual Framework</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RQ1: Development of a theoretical framework</strong></td>
<td>Inductive model based on Historical Institutionalism/Path Dependence/Institutionalisation Process and the Circuits of Power</td>
<td>Suitable theoretical viewpoint to research the influence of power and historical politics on the institutionalisation of OGD</td>
</tr>
<tr>
<td><strong>RQ2: Influence of historical politics on OGD</strong></td>
<td>Historical Institutionalism, operationalised through Path Dependence analysis (Mahoney 2000) and a self-developed institutionalisation model</td>
<td>Historical-political events that have shaped political trajectories, influenced the development of public policies, and defined specific institutional features and cross-trajectory paths</td>
</tr>
<tr>
<td><strong>RQ3: Influence of organisational power on OGD</strong></td>
<td>The Circuits of Power (Clegg 1989)</td>
<td>Exertion of power and resistance from an organisational perspective, and the way power is promoted at individual, social and systemic levels</td>
</tr>
</tbody>
</table>

Source: Own elaboration
Chapter 4: Research Design

“If you would be a real seeker after truth, it is necessary that at least once in your life you doubt, as far as possible, all things.”

– Rene Descartes

4.1. Introduction

The previous chapters outline the theoretical foundations of this research, in particular the specific questions to be answered and the theoretical frameworks used in this process. Key methodological decisions have to be taken in order to successfully conduct this research and, ultimately, to ensure that research questions are answered correctly. This chapter complements the theoretical foundations previously outlined by providing the methodological decisions that facilitate the understanding of the influence of power and politics on OGD. Specifically, this chapter reflects on the research philosophy, methodology, methods and analysis techniques, and provides a brief description of the Chilean OGD initiative as single explanatory case study.

4.2. Research philosophy: Critical Realism

The philosophical position adopted in the research process determines both theoretical and methodological implications. By adopting a specific research philosophy, the researcher assumes a particular worldview that places him or her in a specific intellectual perspective, which also defines the way in which the research project has to be conducted (Bryman 2008; Dobson 2002). This project adopts a critical realist research philosophy.

Critical realism (CR) focuses on the reasons (causality) of the occurrence of a given phenomenon in a specific context (Mingers 2004; Dobson 2002). Unlike positivism (related to the testing, confirmation, falsification, and predictive ability of generalizable theories about an objective event) and interpretivism (with focus on understanding the
subjective meanings that participants assign to a given phenomenon), CR considers that a causal justification for a specific event is inferred by clearly identifying the means by which structural entities and contextual conditions interact to produce it (Wynn and Williams 2012). Following a critical realist approach, reality is seen as an independent and autonomous world beyond the researcher’s knowledge (which is local, historical, and thus fallible), and where access to this world is restricted and facilitated by the researcher’s perceptual and theoretical lenses (Mingers et al. 2013). CR accepts that different analytical perspectives of events may emerge based on an independent reality, hence the emphasis is on the mechanisms which produce these events, specifically how and why they occurred (Volkoff and Strong 2013; Wynn and Williams 2012). In particular, these mechanisms are reproduced through *demi-regularities*, semi-predictable patterns that help explain how and why these mechanisms occur in the context of research (Fletcher 2016).

The emphasis on the causal mechanisms that produce social events has made CR a relevant research philosophy for social sciences, gaining also momentum within the information systems research community in comparison to other traditional philosophies such as positivism and interpretivism (Mingers et al. 2013). Moreover, different authors have also suggested that the most suitable research methodology to conduct critical realist research is the case study, as it focuses on the development of in-depth causal explanations of complex events (a more detailed explanation of case studies is presented in the following subsection) (Wynn and Williams 2012; Easton 2010).

Albeit the wide adoption of CR in IS research, why is it suitable to this project? As stated in section 2.5, this research looks at the causality relationship between organisational power, historical politics and OGD; i.e. the mechanisms that make power and politics influence the development of OGD in the Chilean context. Hence, a detailed study of key political events and power decisions (as forms of causal mechanisms) is required, in order to determine the particular way in which they influence the implementation of OGD within the Chilean context. In particular, CR is operationalised in this research by focusing on the identification of demi-regularities that explain why OGD is implemented in a certain manner within the Chilean polity. As theories may not necessarily reflect
realistically, these have been used to guide but not to determine the identification of these mechanisms, following the recommendations for conducting CR research (Fletcher 2016). Furthermore, data collection has been designed to conduct an intensive and in-depth analysis of these patterns affecting OGD implementation, ensuring the flexibility to explore and update the existing literature on OGD while still allowing for new ideas to emerge. Additionally, these interviews and documents have been coded to search for semi-regularities at the empirical level of analysis. CR looks for tendencies (not laws), hence data has been coded in a flexible manner to identify trends that help report findings. In this exercise, I used a deductive yet flexible codification approach, in line with current trends of CR research. Finally, I reported the empirical data through abduction (or theoretical re-description) using the theoretical concepts derived from the theoretical frameworks. This approach has allowed to not only describe but also interpret these findings to identify how power and political institutions influenced OGD in Chile.

4.3. Research methodology: Case Study

CR recommends explanatory case study as the most suitable methodology to determine the causal mechanisms that produce events within a given context (Mingers et al. 2013). Consequently, this research is conducted through a single case study of the Chilean OGD initiative.

Case studies provide a detailed and extensive examination of a single (or several) case(s) or a particular event as the main unit of analysis (Bryman 2008; Yin 2008), which reflects key representative events of the phenomena that is to be explained. With regard to this study, the analysis of the causal relationships between power, politics and OGD requires an in-depth examination of Chile’s political institutional framework (key regulations, strategies and policies, and dominant rationales, among others) that may influence OGD (Lowndes and Roberts 2013). Given the level of detail required to analyse how power and politics influence the institutionalisation of OGD, this research only focuses on one case – the Chilean OGD initiative – instead of adopting a comparative analysis of two or more cases. Additionally, and considering Yin’s types of cases (2008 in Bryman 2008, p.55), this research represents a critical case which is, according to Yin, useful to test
well-developed theories. The critical case is chosen to gain a better understanding of the circumstances under which the research questions are answered.

4.4. **Selected case study: Chile**

As CR emphasises the use of in-depth case studies to analyse a particular event, Chile and its OGD initiative have been chosen as single explanatory case study. The selection of the Chilean OGD initiative as case study is based on two relevant facts: (1) the Chilean OGD initiative has been operated for six years to date, and is a relatively important part of the digital government agenda (UMGD 2013a; Piñera 2012; Ruiz-Tagle 2012; UMGD 2012a); as well as (2) OGD has been impacted by the politics of the country which, for example, have historically been exclusionary and lacking transparency.

Chile has developed a positive institutional framework to implement OGD (Iglesias 2011). It has assumed a leading role in digital government across Latin America and countries of similar income over the last years. Having one of the highest internet penetration rates in the region (ITU 2013), Chile has implemented reputable digital government initiatives that place the country as a regional leader in e-Government development: in the last UN e-Government survey, Chile was placed 42nd in the general ranking and 32nd in e-participation, being ranked 3rd and 2nd respectively in Latin America (United Nations 2016). The positive performance of Chile is based on the development of different initiatives such as ChileCompra\(^1\) (e-procurement system), or ChileAtiende\(^2\) (public service delivery system), among others, which reflects the relevance of digital government policies in the Chilean government. The emphasis on digital technologies has also been extended to other public policies, such as the enabling role awarded to ICTs in the transparency and access to information agenda (Gonzalez-Zapata and Heeks 2016). In the transparency arena, Chile shows positive institutional development: since 2005, Chile’s Constitution recognises the right to access public information, and a FOI regulation and different decrees have been introduced to implement proactive and reactive transparency policies (Poblete 2009). Two bodies monitor compliance with this framework: the Council for Transparency (independent

\(^{1}\) http://www.chilecompra.cl  
\(^{2}\) http://www.chileatiende.cl
Selected case study: Chile

institution which oversees FOI compliance) and the Transparency Commission (public agency responsible for FOI implementation within public agencies) (Iglesias 2011). This institutional trajectory was enhanced in 2011, when the Chilean government joined the Open Government Partnership (OGP) as part of the second cohort. The country has developed three OGD action plans to date, with the first one including a commitment to develop an OGD platform³ (OGP 2013a; OGP 2013b). Nowadays, the Chilean OGD initiative hosts more than 3,000 datasets and provides several data-driven apps in transport, energy and public services, among others. Although limited in number, other organisations have had an active role in shaping the country’s open government agenda including “Fundación Ciudadano Inteligente” from the local civil society, the OGP and the OECD at international level, academia and private sector organisations (United Nations 2013; Iglesias 2011). This broad institutional environment leads to the conclusion that OGD has an important place in the public digital agenda in Chile.

Despite having made significant advances in OGD development, Chile still faces high levels of inequality, and non-participatory and undemocratic practices across the public sector and Chilean society. During the last 40 years, Chile has experienced different political events, from a long dictatorship of 17 years (including violation of human rights and promulgation of undemocratic institutions) to a more prosperous and stable political system during the 27 years of democracy (Hutchison et al. 2013). The stable political landscape since the country’s return to democracy has also boosted the Chilean economy, being one of the most developed and prosperous in the region (Aninat et al. 2006; Valenzuela 1994). Nonetheless, high levels of inequality persist in Chile: Chile has a GDP per capita of US$21,990 (similar to Portugal, Poland or Hungary), but with a GINI index⁴ of 0.521, it has the highest inequality rate of all OECD countries and one of the highest in Latin America (similar to Zambia, Papua New Guinea, Panama or Bolivia) (OECD 2014; The World Bank 2014). As part of this, Chile has high levels of GDP concentration: 30% of the Chilean GDP is concentrated in 10% of the population, and a significant 10% is concentrated in just 0.01% of the population (Contreras and Ffrench-Davis 2014). In terms of civic participation, Chile implemented voluntary voting and

³ http://datos.gob.cl
⁴ GINI index shows distribution income in a given country, being 1 a situation of complete equality and 0 complete inequality (World Bank 2012b).
automatic registration in the national voting system; a model that has not served to increase levels of participation in national and sub-national elections (Navia and del Pozo 2012). However, Chileans’ participation in voting seems to be partially correlated to the country’s income distribution: during the last elections almost 40% of the population voted, with the richest counties showing higher participation rates than the poorest ones (42% and 32% respectively) (Corvalán et al. 2012). This evidence suggests that a significant part of the Chilean population is still marginalised from the political arena. Different authors suggest that Chile, even after 25 years of democracy, is still a country in transition from dictatorship to democracy, where power continues to be strongly concentrated in Central Government and elites (at political, economic and geographic levels). Albeit its recent and increasing awakening, civil society still remains relatively weak and marginalised from the political arena (Hutchison et al. 2013; Sehnbruch and Siavelis 2014; Larrañaga 2009; Hojman 1996).

Despite Chile’s geographical length extending across 39 degrees of latitude, both political and administrative powers are almost fully concentrated in the capital city of Santiago, which holds the three branches of the state. The highly centralised administration of the country causes that regions and their representatives are often not empowered enough to take strategic decisions, while the Central Government is observed as the place where all relevant decisions are being made. Hence, public policy decision-making (such as OGD, among others) mainly occurs in the capital, while regional governments assume a more operational role in the implementation of these policies (Boeninger 2007; Sehnbruch and Siavelis 2014). The centralisation of power in Santiago can also be explained by the presidential system at the Central Government, which makes the President the most relevant decision maker in the country, and the person that determines which policies are of value to be implemented and which ones are not. This political system makes it extremely difficult for policy makers to raise policies unless the President provides sufficient political backing. By contrast, existing policies that are not fully backed by the President or his/her direct representatives may be relegated in favour of other programmatic priorities or simply cancelled (Boeninger 2007; Clearly 2007).
Another characteristic of Chilean political culture is the occurrence of corruption and back-door oriented politics. After 17 years of dictatorship which were characterised by opacity and secrecy (Boeninger 2007), the Chilean public sector faced successive corruption cases that constrained the democratic strengthening of its political institutions (CDH 2015). Although these cases triggered the improvement of transparency and access to information regulation, the institutional framework was not designed to adequately control the occurrence of corruption in the future but to reduce the political tension caused by it (Rehren 2008; Poblete 2009). The approach adopted to control corruption also reflects the emphasis on short-term policies in order to obtain quick results (Aninat et al. 2006). The short presidential terms of four years have led administrations to attempt to implement short-term policies that can be fully deployed during each term (Cleary 2007; Sehnbruch and Siavelis 2014). Consequently, some policies will not get sufficient political backing to be extended in the coming administration. This is the case with some digital government policies, which are often relaunched in each administration (Kleine 2013; Araya and Barría 2008; Molina 2006).

Against the background of this institutional political context, the period of study considered in this research spans from 1990 to 2015. During these 15 years, six presidential terms are covered, including five centre-left and one centre-right administration (see Figure 4.1). In particular, the period between 1990 and 2011 is considered as part of Path Dependence analysis, while the period between 2011 and 2015 comprises the development of the Chilean OGD initiative – and which is also the basis for the Circuits of Power analysis.

Due to its aforementioned characteristics, Chile has been selected as single case study: its social, political and economic conditions, in addition to its ongoing OGD programme, make Chile a suitable explanatory single case study. Moreover, Chile’s leading position in the transitional-developing world adds to the relevance of this research as lessons and conclusions may be transferred to similar countries which find themselves at the stage of implementing OGD initiatives. Given the emphasis of CR on studying in-depth causal mechanisms to explain a particular event, a comparative analysis has not been considered. The evidence presented in this section underlines the rich environment
around OGD in Chile that, as a single case study, can provide detailed evidence and insights to answer the research questions outlined in section 2.5.

![Presidential terms during periods of study for path dependence analysis and OGD](source)

**Figure 4.1:** Presidential terms during periods of study for path dependence analysis and OGD
Source: Own elaboration

### 4.5. **Research methods: Documentary Examination and Semi-structured Interviews**

Adopting CR as the philosophical approach for this work, specific methods are applied to provide in-depth explanatory details to adequately answer the research questions, as well as to triangulate primary and secondary data sources to minimise the risk of generating erroneous findings (Mingers et al. 2013; Easton 2010). Two main methods have been selected in line with CR requirements in order to provide detailed information about the single explanatory case study: documentary analysis and semi-structured interviews.

The use of documentary sources requires the analysis of a wide range of formal written evidence as secondary data sources. According to Bryman (2008), documents can be considered as research data sources as they: (1) can be read and easily manipulated, especially in machine-readable formats; (2) have not been produced specifically for the purpose of social research; and (3) are preserved and can be available for future analysis. Personal and official documents are pertinent as data sources if they fulfil four basic principles: (1) authenticity (genuine and unquestionable origin); (2) credibility (free from error and distortion); (3) representativeness (typical of its kind); and (4) meaning (clear and comprehensible). Consequently, any official document or report produced by
formal organisations can be considered as a secondary data source, such as official legislation, decrees, strategies and guidelines produced by the Chilean state or key international organisations. The list of documentary sources considered in this research is listed in Appendix 2.

Along with documentary examination, the analysis of in-depth evidence required in CR research is conducted through semi-structured interviews (Bryman 2008; Yin 2008). Interviews are a common and suitable research method to conduct qualitative research in explanatory case studies as they capture details that otherwise would be difficult to perceive and document (Myers and Newman 2007). Specifically, semi-structured interviews provide a positive balance between structure and flexibility, i.e. they give interviewees enough space to express details and personal perceptions (Saunders et al. 2012; Bryman 2008). The semi-structured questionnaire has been constructed following the two theoretical frameworks of this research (see Appendix 3).

Interviews were conducted during two fieldwork periods in Chile: pilot fieldwork during December 2014 and main fieldwork between March and May 2015 (see details of fieldwork for this research in Appendix 4). Different groups of interviewees are incorporated in this research: civil society organisations, ICT individuals, data journalists, technology-related entrepreneurs, public sector officials and practitioners, and researchers and academics, all working on either OGD or areas related to digital government, transparency and access to information, or public data management, among others (see list of interviewees in Appendix 5). These interviewees were selected by purposive sample selection (Saunders et al. 2012) given their direct role in OGD, digital government, transparency and access to information, or data governance policies in Chile. While most of the interviewees were contacted via email, some were also approached during conferences or contacted by other interviewees. Further details of the research were provided through information sheets according to the Faculty of Humanities’ guidelines, University of Manchester (see Appendix 6). In general, the process of reaching interviewees and agreeing to have an interview was relatively straightforward and did not consume too much time. These semi-structured interviews were conducted under an anonymous reporting agreement: given the interviewees’ political role in the OGD agenda or in other related areas, all interviews were conducted
Research Design

anonymously, and references to public agencies and other key actors were anonymised. Interviewees are referenced in this thesis following the code list defined in Appendix 5.

A relevant aspect considered during the data collection processes was to avoid bias in the research. In order to avoid distortions during interviews, this research adopted semi-structured questions that guided the topics of interest to be studied, but were flexible enough to allow interviewees to express themselves in an open and reflexive way. Additionally, there was not a specific order of questions to be followed; depending on the answers, some questions were asked earlier than stated in the questionnaire in order to facilitate the flow of discussion and to allow interviewees to express their opinion about the discussed topics more openly. During the interviews, interventions from the researcher were short and concise, always focused on asking specific questions and maintaining the flow of discussion, avoiding bold statements or any other form of distortion. When needed, questions were posed to clarify concepts and perceptions about a specific topic, in particular to avoid the assumption of any personal interpretation regarding the interviewees’ answers. Furthermore, triangulation of data sources has been adopted to minimise errors in the methodological process and to bring different perspectives of the phenomenon together, which reflects CR recommendations (Wynn and Williams 2012). Triangulation helps facilitate more reliable and accurate research as it incorporates multiple data sources and perspectives to support causal analysis: it comprises a variety of data types and sources, analytical methods and theoretical perspectives (Wynn and Williams 2012; Bryman 2008). This research has accomplished triangulation by using different types of data and sources in order to obtain different perspectives about OGD in Chile. Firstly, the use of official documents as secondary data sources (such as guidelines, reports, and legislation) helped gather the official perspective of OGD as promoted and implemented by the Central Government. These documents contain the official meaning of OGD in Chile and the emphasis on promotion and implementation during the period of study. Secondly, in-depth interviews as primary data sources provided the personal meanings and perspectives of key stakeholders involved in OGD in Chile. Furthermore, these interviews were conducted with different types of interviewees (such as government practitioners, politicians, CSOs, academia, private sector and online search, among
Research analysis technique: Template Analysis

Primary and secondary data sources are analysed through Template Analysis (TA). This technique analyses documentary evidence by developing themes or code sets (templates) to summarise concepts identified by the researcher in a dataset (King 2012a). Following an inductive and iterative approach, these codes are organised hierarchically in a meaningful and useful manner. Hence, they have been adopted in this work to reinforce the in-depth analysis required by CR. Following a top-down approach, initial codes, being general conceptualisations of the topic, are expanded into more detailed code sets (Waring and Wainwright 2008). The analysis process of organising, connecting and legitimising code sets involves four steps: (1) creating a code scheme; (2) hand or computer coding the text; (3) sorting elements to get all similar text in one place; and (4) reading the segments and making the connections that are subsequently corroborated and legitimised (Saunders et al. 2012). Through code sets TA compares different perspectives on the same topic, facilitating the inference process (King 2012b). TA is suitable for this research as it helps reduce large amounts of unstructured text, while it provides flexibility to adapt and refine codes that better answer the research questions, making data sources more manageable – an aspect that has been particularly important for this research considering the large amount of text that was analysed.

Following these steps, TA was conducted in this research by defining an initial template based on the theoretical frameworks included in this work. As TA requires textual sources, interviews were transcribed from audio files in formats that enabled their easy codification in NVivo 11 (qualitative data analysis software). Additionally, other textual sources such as documents and regulation were also incorporated into NVivo in order to have both primary and secondary data available for coding. Subsequently, textual sources were coded following the initial template in an iterative process of refinement.

---

5 http://www.qsrinternational.com/nvivo-product
that led to a final code set and a list of key insights regarding the research questions to be answered in this work. The transcription process and the iterative coding of textual sources involved reading through both primary and secondary data several times before reaching a saturation point. This process was also helpful to reflect on the empirical evidence as well as to have a clearer overview of the key insights delivered by this work.

4.7. Researcher’s experience in the field

Given the focus of this research on understanding the influence of political institutions and power on OGD, several interesting reflections can be made about the research experience in the field, in particular related to the focus on the political-ness of the OGD initiative in Chile.

Firstly, given the political role of several interviewees, some of them were contacted through other interviewees who had been interviewed early on in the process. Through their networks they facilitated the process of reaching some relevant stakeholders of the initiative. Although this may be seen as a bias of the research, the contacted interviewees were identified in advance, and only the process of making contact with them was facilitated. I personally avoided any particular engagement related to any of the interviewees, in order to focus solely on the topic of study.

Another relevant aspect of the experience in the field was the strong political orientation of several interviewees, as they work or used to work at the Central Government. Several interviewees provided bold statements about the political orientation of OGD and related officials, and about their personal agendas during the implementation of the initiative. In order to maintain the rigour of the research, I did not engage with any of those comments, and re-directed the conversation to the topics of interest for this work. Although this work required relevant data about the political-ness of OGD, I tried to avoid any political conversation related to people rather than the initiative.

Finally, another relevant aspect was the adoption of anonymization as proxy to gain the trust of the interviewees, and I explicitly mentioned as often as possible that all the data would be anonymised in the thesis and any other publication related to this work. In general, interviewees felt more confident to talk, and allowed me to record the audio
for 54 out of 55 interviews. It was important to clarify the purposes of this work and the focus on the initiative, rather than the administrations or civil servants involved during the implementation of OGD.

4.8. Chapter summary

This chapter provides details about different methodological aspects considered in this work, and that ensure a rigorous and suitable research process, including research philosophy, methodology and methods, analytical techniques, and the justification for selecting Chile as single case study, all summarised in Table 4.1.

Table 4.1: Summary of Research Design

<table>
<thead>
<tr>
<th>Research aspect</th>
<th>Selected option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Philosophy</strong></td>
<td>Critical Realism</td>
<td>It focuses on causality mechanisms that produce a set of events perceived in an independent but partially known reality.</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>Single Explanatory Case Study</td>
<td>Extensive and detailed analysis of a particular context as main unit of study which is representative of the researched phenomena.</td>
</tr>
</tbody>
</table>
| **Methods**     | - Documentary Examination  
                  - Semi-structured Interviews | These methods allow triangulation of different sources (formal and informal: rules, practices and discourses) to answer the research questions. |
| **Techniques**  | Template Analysis   | This technique facilitates the analysis of textual sources such as documents, regulations, and transcribed interviews through a systematic refining process of code sets. |

Source: Own Elaboration
Chapter 5: Path Dependence analysis of OGD institutional trajectories

“Everyone who wants to know what will happen ought to examine what has happened: everything in this world in any epoch has their replicas in antiquity.”

― Niccolò Machiavelli

5.1. Introduction

The first aspect of study is how institutional politics may have affected the development of OGD in Chile. As stated in section 3.2, different scholars suggest that studying historical institutions is an effective method to review the progression of political institutions and their impact on observed events. Among different theories, Historical Institutionalism (HI) has been largely used to conduct this type of political institutional analysis. HI attempts to analyse the significant historical processes of events that may explain how and why a particular political event occurs.

The operationalisation of HI requires looking at path dependence and its impact on policy decision-making. By studying historical events, HI looks for specific patterns of historical behaviour when a new set of events starts. In particular, it looks at critical junctures that reflect the influence of past events which supports path dependence across time through self-reinforcing dynamics and positive returns these institutions create. This analysis involves a five-step sequence of study (see Figure 3.2):

1) **Antecedent conditions**: institutional conditions which condition available policy options and shape selection processes;

2) **Critical junctures**: choice of a particular policy option among other alternatives which initiates an institutional trajectory;
3) *Punctuated equilibrium*: process of institutional reproduction and stability disrupted by new critical events. It comprises two levels:

a) *Structural persistence*: institutional production and reproduction of the selected policy;

b) *Reactive sequences*: disruptive event(s) that may change lock-in of the selected option;

4) *Outcomes*: extent to which an institution is adopted as a consequence of path dependence and under what conditions this dependency is reinforced over time.

Figure 3.2: Historical Institutionalism through path dependence analysis (see section 3.2)
Source: adapted from Mahoney (2001) and Shih et al. (2012)

This theory helps analyse the macro level of historical politics that have influenced the development of OGD, i.e. how particular initiatives have historically been designed and implemented, creating political conditions for the adoption of technological innovations such as OGD.

One key aspect for path dependence analysis is the timeframe of study. During the last nearly 50 years, Chile has faced a series of political events which explain its current political and institutional structure: the rise of the first democratic socialist government in history led by Salvador Allende (1970-1973); a 17-year long dictatorial period of violence and undemocratic practices led by Augusto Pinochet (1973-1990); and a series of democratic governments of centre-left and centre-right political coalitions (1990 onwards) which have made a continuous effort to develop a solid democratic system.

Here, historical events influencing OGD that occurred between March 1990 and
December 2011 have been considered. The selection of the period of study is justified by two reasons: a) Pinochet’s dictatorship was characterised by high levels of secrecy and undemocratic practices, and thus gathering data from this period would have made this research unfeasible; and b) studying Chile’s institutions from 1990 provides a more homogeneous political environment to understand political dynamics over the years (see Figure 4.1 with the timeline of study).

**Transparency, data governance, and digital government** are the main institutional trajectories studied to deconstruct the influence of historical politics on OGD. As derived from the definition of OGD presented in section 2.2.1, OGD is the intersection of three broader domains, namely open government (OG), government data (GD), and open data (OD). Hence, their historical trajectories may have an influence on the institutional framework for OGD. More specifically, OG emerges from the *transparency and access to information* agenda, and prior institutional progression on transparency regulation and policies to access public data may thus have a relevant role in OGD. GD has been preceded by *digital government* and *data governance* agendas. The strategies, policies and institutional structures that frame these agendas may also have a relevant role in shaping the institutional framework of OGD. Finally, OD is derived from technological movements and data management practices, which are also linked to e-Government efforts and data governance policies. Alongside this conceptual foundation, these trajectories were also identified as the main thematic categorisations from data analysis, and were highlighted by interviewees as the dominant sources of institutional influence on the development of OGD in Chile. As can be seen in Appendix 3, the questionnaire does not include any bias towards forcing interviewees to analyse OGD from these three trajectories. Instead, questions widely reflect on the three trajectories given the conceptual foundation described above, as well as their influence in the Chilean OGD initiative. Additionally, other trajectories also emerged as part of the preliminary primary and secondary data analysis, such as the role of *civil society organisations* and the *innovation and entrepreneurship movement*. These paths were initially explored but further analysis showed that they did not have a significant impact in order to be studied as separate threads. Instead, the civil society organisations’ trajectory was incorporated as part of the transparency analysis, considering that transparency-related CSOs have
been the most actively involved stakeholders from civil society in shaping the OGD initiative. By contrast, the role of innovation and entrepreneurship was discarded as evidence showed that there was not a direct causal influence on the Chilean OGD initiative. With this research being a CR exercise, other trajectories that were not reported by the interviewees may have had a relevant role in shaping the Chilean OGD initiative. Further research may provide a new perspective to understand this phenomena and other causal explanations for OGD.

Around these three institutional trajectories, different interactions with local and international stakeholders have shaped the way OGD has been developing in Chile. Given path dependency’s focus on historical institutions, this chapter follows a chronological structure of three relevant periods: antecedent conditions of the critical junctures (1990-1994); critical junctures (1995-1999); and a process of punctuated equilibrium (2000-2011) comprised of structural persistence (2000-2005) and reactive sequence (2006-2011) phases. Outcomes of this analysis are presented at the end of this chapter, along with the discussion of some preliminary conclusions. Additionally, lists with key political events related to digital government, transparency, and data governance during the period 1990-2011 can be seen in tables 5.1, 5.2, and 5.3 respectively.

Table 5.1: Relevant political events in digital government in Chile (1990-2011)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Type of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-1997</td>
<td>Strategic plan for public management modernisation – creation of an e-Government committee</td>
<td>Administrative</td>
</tr>
<tr>
<td>Jan-1999</td>
<td>“Chile towards a knowledge society” – report from the e-Government committee</td>
<td>Administrative</td>
</tr>
<tr>
<td>Dec-1999</td>
<td>Decree 5996-1999 to create an intranet for public offices</td>
<td>Legal</td>
</tr>
<tr>
<td>Mar-2000</td>
<td>Digital government strategies moved from Ministry of Economy to SEGPRES</td>
<td>Administrative</td>
</tr>
<tr>
<td>Mar-2000</td>
<td>Online income tax declaration – Digital modernisation of SII</td>
<td>Administrative</td>
</tr>
<tr>
<td>May-2000</td>
<td>Creation of PRYME – State modernisation and reform programme (SEGPRES)</td>
<td>Administrative</td>
</tr>
<tr>
<td>May-2001</td>
<td>Launch of “Trámite Fácil” – one-stop shop of the Chilean state</td>
<td>Administrative</td>
</tr>
<tr>
<td>Apr-2002</td>
<td>Law 19.799 for electronic documents and electronic signature</td>
<td>Legal</td>
</tr>
</tbody>
</table>
Table 5.2: Relevant political events in transparency in Chile (1990-2011)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Type of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-1994</td>
<td>Case “Dávila – Codelco”</td>
<td>Corruption</td>
</tr>
<tr>
<td>Apr-1994</td>
<td>Creation of National Commission for Public Ethics</td>
<td>Administrative</td>
</tr>
<tr>
<td>Dec-1994</td>
<td>Presidential Directive 006-1994 to create a committee for public modernisation</td>
<td>Administrative</td>
</tr>
<tr>
<td>Mar-1997</td>
<td>Strategic Plan for public management modernisation</td>
<td>Administrative</td>
</tr>
<tr>
<td>Aug-1998</td>
<td>Government systematically denied access to public information to Mr. Claude-Reyes</td>
<td>Administrative</td>
</tr>
<tr>
<td>Dec-1998</td>
<td>Mr. Claude-Reyes sued Chilean state in the Inter-American Court of Human Rights</td>
<td>Legal</td>
</tr>
<tr>
<td>Dec-1999</td>
<td>Law 19.653 for administrative integrity (modification to law 18575)</td>
<td>Legal</td>
</tr>
<tr>
<td>May-2001</td>
<td>Decree 026-2001 for secrecy of public acts and documents</td>
<td>Legal</td>
</tr>
<tr>
<td>Oct-2002</td>
<td>Case “Coimas”</td>
<td>Corruption</td>
</tr>
</tbody>
</table>
## Path Dependence analysis of OGD institutional trajectories

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Type of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-2003</td>
<td>Case “MOP-GATE”</td>
<td>Corruption</td>
</tr>
<tr>
<td>Mar-2004</td>
<td>Law 19.886 for public procurement – “ChileCompra”</td>
<td>Legal</td>
</tr>
<tr>
<td>Jan-2005</td>
<td>Parliament motion Gazmuri-Llarrain for a FOIA</td>
<td>Legal</td>
</tr>
<tr>
<td>Aug-2005</td>
<td>Constitutional modification to add the right of access to public information</td>
<td>Legal</td>
</tr>
<tr>
<td>Dec-2005</td>
<td>Repeal of decree 026-2001</td>
<td>Legal</td>
</tr>
<tr>
<td>Sep-2006</td>
<td>Inter-American Court of Human Rights condemned Chile for case Claude-Reyes</td>
<td>Legal</td>
</tr>
<tr>
<td>Nov-2006</td>
<td>Case “ChileDeportes”</td>
<td>Corruption</td>
</tr>
<tr>
<td>Dec-2006</td>
<td>Presidential Directive 008-2006 of active transparency in the state of Chile</td>
<td>Administrative</td>
</tr>
<tr>
<td>Jan-2007</td>
<td>Case “EFE”</td>
<td>Corruption</td>
</tr>
<tr>
<td>Aug-2008</td>
<td>FOIA – Law 20.285 of transparency and access to information</td>
<td>Legal</td>
</tr>
<tr>
<td>Apr-2009</td>
<td>Entry into force of law 20285 in the state of Chile</td>
<td>Administrative</td>
</tr>
<tr>
<td>Apr-2009</td>
<td>Creation of the Council for Transparency</td>
<td>Administrative</td>
</tr>
<tr>
<td>Feb-2011</td>
<td>Law 20.500 for citizen participation</td>
<td>Legal</td>
</tr>
<tr>
<td>Sep-2011</td>
<td>Chile enters the Open Government Partnership (OGP)</td>
<td>Administrative</td>
</tr>
<tr>
<td>Dec-2011</td>
<td>Creation of local working group to develop Chile’s OGP action plan</td>
<td>Administrative</td>
</tr>
</tbody>
</table>

Source: Own elaboration

### Table 5.3: Relevant political events in data governance in Chile (1990-2011)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Type of event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-1999</td>
<td>Law 19.628 for personal data protection</td>
<td>Legal</td>
</tr>
<tr>
<td>Aug-2000</td>
<td>Decree 779-2000 for registration of personal data databases held by public agencies</td>
<td>Legal</td>
</tr>
<tr>
<td>Apr-2002</td>
<td>Law 19.799 for electronic documents and electronic signature</td>
<td>Legal</td>
</tr>
<tr>
<td>May-2003</td>
<td>Law 19.880 for administrative procedures in public agencies</td>
<td>Legal</td>
</tr>
<tr>
<td>Dec-2004</td>
<td>Decree 077-2004 for technical guidance for efficient electronic communication</td>
<td>Legal</td>
</tr>
<tr>
<td>Dec-2004</td>
<td>Decree 081-2004 for technical guidance for interoperability among public agencies</td>
<td>Legal</td>
</tr>
<tr>
<td>Jan-2005</td>
<td>Decree 083-2005 for technical guidance in security and confidentiality of e-documents</td>
<td>Legal</td>
</tr>
<tr>
<td>Aug-2008</td>
<td>FOIA – Law 20.285 of transparency and access to information</td>
<td>Legal</td>
</tr>
<tr>
<td>Apr-2009</td>
<td>Entry into force of law 20.285 in the state of Chile</td>
<td>Administrative</td>
</tr>
<tr>
<td>Jul-2008</td>
<td>Decree 271-2008 to create a public metadata administration system</td>
<td>Legal</td>
</tr>
<tr>
<td>Jul-2009</td>
<td>Creation of PISEE – Platform for the interoperability of electronic services of the state</td>
<td>Administrative</td>
</tr>
<tr>
<td>Jan-2010</td>
<td>Management Improvement in Information Security Project</td>
<td>Administrative</td>
</tr>
</tbody>
</table>

Source: Own elaboration
The justification to define the periods comprising PD to each of these timeframes relies on the identification of the critical juncture between 1995 and 1999, when the modernisation and eGovernment agenda was launched. During this period the eGovernment agenda began, and the dominant rationales for the future of these and other initiatives were adopted. The following periods correspond to different Presidential terms which also showed different rationales to implement and promote each of the trajectories. PD analysis and related literature do not provide any further tool to help identify these periods, and there has thus been an absence of guidance to identify the dominant components of each PD period into a specific timeframe. Hence, this process represented one of the most challenging tasks during the research period.

In order to facilitate this analysis and given the high amount of primary and secondary data used in this research, the influence of historical politics on OGD is divided in two different levels of analysis (each of them becoming a separate chapter): this chapter focuses on studying the institutional progression of these three trajectories, leading to a comprehensive institutional analysis of the key institutional features and paths that will likely have an impact on OGD; while Chapter 6 conducts a historical analysis of the development of OGD in Chile and, based on the findings obtained at the end of this chapter, depicts a detailed analysis of the influence of historical politics of these three trajectories on OGD. Albeit these two analyses are strongly interconnected, these have been divided to clearly outline the key institutional characteristics and paths of pre-2011 trajectories and how these have an influence on the particular way OGD has been implemented during the period of study (see Figure 5.1).

As stated in section 3.2, this analysis is complemented by study of the key institutional features of each trajectory, and in particular how they determine the institutionalisation process of OGD (see Figure 3.3). This analysis is conducted by studying the level of symbolism and materialism of these features. In practice, symbolism represents the presence of core values in different types of institutions that define an institutional standard but which do not provide a complete structure for their implementation (such as the constitutional acknowledgement of transparency and access to public information); while materialism reflects on the development of a comprehensive framework that implements the values represented via symbolic forms (such as the
transparency law that defines specific procedures, principles and sanctions to frame access to public information).

Figure 5.1: Relationship between Chapters 5 and 6
Source: Own elaboration

This theoretical viewpoint suggests that the more material these features are, the more institutionalised these trajectories are. In contrast, the more symbolic these features are, the less institutionalised these trajectories can be. Hence, institutionalisation can be understood as the sufficient level of material forms of institutions in order to facilitate their long-term existence, such as binding regulation, long-term strategies and policies,
clear procedures and cross-sectoral practices, and shared objectives and rationales which provides a comprehensive foundation for institutions to survive.

5.2. Antecedent conditions (1990-1994)

5.2.1. Introduction

Since Chile came back to democracy in 1990, political coalitions have made a significant effort to expand the democratic political system, while paying careful attention to continue the development of the neoliberal economy inherited from Pinochet’s dictatorship (Boeninger 1997). Indeed, Chile faced the challenge of transitioning to a legitimised political, social and economic system - a key concern for political elites during the early years of Chile’s regained democracy. Centre-left political parties organised around the Concertación coalition, which was led by Patricio Aylwin, the first democratic president after Pinochet’s dictatorship, focused on creating the political conditions for governability, with special attention to reducing any attempt of social disruption that may have risked the incipient democracy.

The nature of this period is significantly shaped by the dictatorial system which ruled the country for more than 17 years. However, this research does not fully cover that period, since it concentrates its analysis on more recent historical events. Although the dictatorial government does not represent a core element of this research, it is considered in parts of the analysis to enhance the understanding of the institutional trajectories here studied.

In terms of the chronological analysis, the period between 1990 and 1994 is characterised by efforts to ensure the stability of the country. 1994 represents a significant milestone for Chile, having achieved a relatively legitimised political system, but facing the challenge of economic expansion (Sehnbruch and Siavelis 2014). Efforts to consolidate the economic system created the conditions for the development of modernisation and transparency trajectories, in particular thanks to attempts to control corruption and to provide confidence to international organisations and local and foreign investors. Thus, the period between 1990 and 1994 comprises the antecedent conditions for the driving institutions underlying OGD, and triggers the critical juncture period between 1995 and 1999. In particular, there are antecedent conditions in digital
government, transparency, and data governance prior to the critical juncture period that are reported in this section, which help explain the underlying institutional conditions at the time the critical juncture occurs.

5.2.2. The digital government trajectory

5.2.2.1. Preliminary evidence

There is not much evidence about the incorporation of digital technologies before 1990. Some interviewees highlight that its emergence and spread solely occurred during the 90’s. Beforehand, the usage of ICTs and computers was restricted to highly complex tasks (production machinery control in public firms) or highest-level public officials (RA-03; RA-10; IN-02). Anecdotal events related to digital government experiences were highlighted by the interviewees but with no major incidents seen as impacting on the development of the later digital government trajectory from 1990 onwards.

5.2.2.2. Antecedent conditions from 1990 to 1994

Prior conditions to the digital government trajectory are profoundly related to efforts to modernise the state, reduce bureaucracy and make Chile a more efficient and attractive place for international investors. However, political elites did not transform this rationale into a comprehensive material framework for digital government in the country.

The lack of modernisation of the state was one of several concerns that the incoming government observed as a barrier to social and economic progress. Several scholars working on the development of post-Pinochet democracy recall that there was a need to improve the efficiency of the state in order to continue to develop the economic system (Araya and Barra 2008; Boeninger 2007). President Aylwin’s government also identified the modernisation of the state as a major challenge to push the country towards development. Nevertheless, modernisation initiatives were relegated to prioritise other programmatic policies (Tello Navarro 2011; Waissbluth and Inostroza 2006). Interviewees highlight that the role awarded to ICTs in this agenda was symbolic and limited to operational tasks that aimed to reduce costs related to bureaucracy and promote an image of technological capacities towards the developed world (RA-03; RA-10; PSP-13). As a result, this period does not observe any material regulatory or
normative institutional advance, but it incorporated ICTs in the political arena; e.g. there was awareness of the benefits that ICT initiatives may bring among the political elite. In contrast, a more dynamic agenda on ICTs can be seen in the integration of digital technologies in education through the Enlaces programme and the large scale incorporation of ICTs in education (Hepp 2003; Laval and Hinostroza 2002). This programme received major political support and economic resources, in contrast to the symbolic rationale for the wider adoption of ICTs in the public sector (RA-03; RA-12; IN-02).

In the absence of material institutional advances in digital government during Aylwin’s term, a policy window opened up given Codelco’s corruption case of US$200m at the end of his period (early January 1994). Similar to the transparency agenda, corruption cases pushed Concertación’s governments to value ICTs as a tool for modernisation. This led to the development of an extensive modernisation agenda in areas where digital technologies played a relevant role in the next term of President Eduardo Frei (see next section 5.2.3). The fear of diminishing political cross-sectoral legitimacy that had been reached by Aylwin, added to the economic expansion pursued by Eduardo Frei, which created the conditions to implement a modernisation agenda during his term.

5.2.3. The transparency trajectory

5.2.3.1. Preliminary evidence

Before 1990, Chilean regulation in transparency and access to public information was limited in both material and symbolic terms. Pinochet’s dictatorship is recognised as an opaque and violent regime, with severe violations of human rights and secrecy of information (Boeninger 1997). Attempts were made by Pinochet to organise the Chilean state under integrity and authoritarian principles, which mostly related to the bureaucratic model of the state implemented during these years; i.e. Chile adopted a strictly hierarchical Weberian model and followed the neoliberal principle of “more market and less state”.

During this period, the Chilean Parliament promulgated the law 18.575 of general administrative bases for the Chilean state (CNC 1986). The law defines a series of principles that frame civil servants’ behaviour according to moral and integrity
parameters, as well as introducing authoritarian-Weberian compliance to public law, with strict vertical hierarchy and control of public resources. Interviewees suggest this approach was undertaken to minimise the impact of political power and corruption within the Chilean public system (CS-01; CS-06; RA-12). While the law was a significant milestone for civil service, it did not include access to information or public data in material or symbolic forms. However, it would be the basis for the future incorporation of transparency and access to public data in the Chilean state.

5.2.3.2. Antecedent conditions from 1990 to 1994

As stated beforehand, political efforts were concentrated on laying the foundations for a stable political and economic system. Transparency and accountability policies during this period remained in the discourse, with no further material policies or regulatory frameworks being implemented during this period (PSO-08; PSO-09; CS-06). Scholars recall that during this period there were no further advances in the materialisation of a transparency agenda, but it was key to setting its symbolic relevance (Precht 2015; Olavarría 2013), and helping underpin the rise of a transparency and access to information framework in the country.

At the end of Aylwin’s term the incipient democracy faced a major critical issue: Codelco, the world’s largest copper producer and Chile’s main public firm, was affected by a corruption case of US$200m (Cleary 2007). The reaction of the political elite to this case had two main dimensions: externally, this was presented as an isolated case but requiring the introduction of mechanisms to avoid the rise of new cases; while internally, corruption may have been hampering the expansion of the economy and the legitimacy of the political system (CS-01; CS-06; CS-08; RA-09). While this period does not see introduction of any material regulatory or normative institution, this case represents a reactive approach to reducing corruption by making transparency and access to information a priority among the elites. The case highlighted the need for transparency in the political discourse (CS-01; CS-06; RA-09); and opened up a policy window that led to the creation of several committees and agendas to control the externalities of the Codelco case (Poblete 2009). Concerns about transparency and modernisation became symbolically present in the political collective imaginary and discourse. This symbolic presence of transparency created sufficient political momentum at the end of the period.
to promote transparency as part of a forthcoming modernisation agenda for the country. In institutional terms, Aylwin’s period did not observe any materialisation of this agenda into regulatory or normative institutions (CS-01; RA-09), but helped raise awareness of its relevance for Chile’s democratic progression among the political elite (CS-01).

Another key element is the participation of civil society organisations in the development of the transparency trajectory. Evidence can be found across this chapter in the boxes which are included in each transparency subsection.

**BOX 5.1: Antecedent conditions for transparency-related CSOs**

With the return to democracy, CSOs entered into a dismantling crisis due to lack of funding sources, co-option of their key leaders by the new government, and an ideological vacuum since Pinochet’s regime was democratically deposed. Most of the existing CSOs were supported by international donors who channelled their funds through international development agencies, privileging the Central Government as main recipient. As CSOs mostly focused on restoring the democratic political system, several organisations lost their political foundation and entered into an ideological crisis (RA-01; CS-07). Besides, the ruling coalition required a major effort to call new public servants to occupy key roles in the Government, and CSOs were a useful source of civil servants with a similar programmatic and political worldview. This co-option of CSOs reduced the influence of civil society in the early years of democracy, while it helped maintain a calm and non-confrontational society vis-a-vis the new ruling coalition.

The participation of civil society members in democracy and governance was also reduced, although political elites from Concertación admit that they attempted to deliver better participatory frameworks at the early stage of their period (1990-1994). However, Chile also faced a more structural barrier; i.e. the impact of neoliberal economic policies during the dictatorship (and continued by Concertación) emphasised individual effort over collective action, thus decreasing interest in politics and collective welfare. Several studies show that civil society participation was damaged by ruling economic forces, thus developing apathy for politics that would only re-emerge with the educational protests in 2007.
5.2.4. The data governance trajectory

5.2.4.1. Preliminary evidence

Official regulation for data management in Chile dates back to 1929 with the law 5.200 for national archives (CNC 1929). This law oversees the control and storage of documents issued for public policy purposes, which had to be collected, saved and disseminated by the National Archive. Until the return to democracy, no major changes to the production and control of public data were undertaken, except through sectoral directives for personal data protection and specific data products. One example is the law 17.374 for statistical secrecy (CNC 1970), which constrains public servants to solely publish statistical information that has been previously anonymised and where privacy has been protected. Minor changes are observed only in 1989 when the law 18.845 for micro-copy of public documents was passed (CNC 1989).

5.2.4.2. Antecedent conditions from 1990 to 1994

The period of antecedent conditions observes a limited data governance framework, inherited from previous pre-dictatorial governments. During these years, practices and rationales of public data governance were mostly paper-based, which did not favour transparency and access to information (CS-01; RA-03; PSP-03). In the absence of technology to digitally manage public data, there was also a lack of interoperability practices during this period. Indeed, as digital technologies were not fully integrated into the Government’s bureaucracy, there was limited availability of resources and incentives to promote this agenda (RA-03; RA-12).

The development of data governance practices emerged only in 1999 as part of data protection policies, specifically due to the modernisation agenda and the international economic pressure to accomplish world-class standards to protect intellectual property in free-trade agreements (CS-03; PSP-07; PSP-12). Thus, major modernisation efforts in data management practices were relegated during this period and only started to emerge in 2000 with the incorporation of ICTs for electronic communication and interoperability. All public data regulation and practices were paper-based and, according to interviewees, had remained in the public sector for several years (PSP-07;
Antecedent conditions (1990-1994)

PSP-08; RA-03). However, regulatory and normative advances would only emerge with the political momentum for data protection and the global awareness of transparency and access to information, when Chile had to update its data governance framework (CS-03; RA-03; PSP-03).

5.2.5. Outcome of the antecedent conditions period

The development of democracy over the early years of Concertación’s government shows an emphasis on legitimising a governance model that serves as the foundation for Chilean social and economic expansion. There was a semantic transition during this period; the introduction of values and principles around these three trajectories, which were not fully reflected in a regulatory or practice framework. In the antecedent conditions period there is a symbolic, high-level presence of modernisation and transparency related cultural-cognitive rationales, which however did not drive Concertación’s programmatic priorities. Improved efficiency in public service delivery and the reduction of bureaucracy emerged as dominant cultural-cognitive aspects to contain the externalities of corruption, and to foster an emerging economic programme based on free trade agreements.

During the antecedent conditions period, corruption triggered cultural-cognitive opportunities for opening up a policy window. There were two dominant rationales to reduce the institutional impact of corruption cases: to control likely social tensions and mistrust towards the governing coalition; and to continue expanding the Chilean economy based on a projection of integrity and seriousness to foreign investors. Efforts were made during the critical juncture period to create a material institutional framework that made use of modernisation and transparency to project Chile as a reliable country to invest in, and ICTs played a relevant role in this agenda.

Evidence also suggests an underestimation from the political elite regarding the extent and complexity of both institutional modernisation and transparency. The dominant political discourse in favour of transparency and modernisation was not translated into material practices and regulatory frameworks, hence institutions only emerged during the critical juncture period. In addition, the political elite promoted a passive state-society relationship, in which social aspirations were solely channelled through
Path Dependence analysis of OGD institutional trajectories

representative democracy, in order to reduce tensions between civil society and political/economic elites in the weak and incipient democracy.

Overall, the antecedent conditions show a limited introduction of values and principles in the public sector related to modernisation of the state and transparency which were not on the radar of the political elite. Institutions were not prepared to transform this symbolic discourse into formal, long-term institutions, thus requiring a critical juncture – a shift in the institutional trajectory – to ingrain these values into new or modified institutions. Details of these institutional features are analysed in Table 5.4 further below.

Table 5.4: Institutional features during the antecedent conditions period (1990-1994)

<table>
<thead>
<tr>
<th>Institutional components</th>
<th>Digital Government</th>
<th>Transparency</th>
<th>Data Governance</th>
<th>Level of Institutionalisation (Symbolic vs Material)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Institutions</td>
<td>Absence of formal regulation in any form. Peripheral introduction of ICTs in desk tasks and educational reforms.</td>
<td>Limited legal advances from dictatorial period to frame public sector bureaucracy. Limited and complex environment for CSOs.</td>
<td>No legal advances, regulatory framework dates from pre-dictatorial period.</td>
<td>Overall, absence of regulatory institutions in these three trajectories. Institutions are mostly symbolic.</td>
</tr>
<tr>
<td>Normative Institutions</td>
<td>Sectoral ICT-based practices mostly focused on bureaucratic and educational purposes. Incipient strategy for educational reform included use of ICTs.</td>
<td>Weberian/hierarchical bureaucratic model adopted to maintain control over civil service and prevent corruption. Unclear pro-transparency initiatives.</td>
<td>Paper-based practices according to sectoral purposes/agendas. Exchange of data between public agencies occurred on a one-to-one basis and for specific purposes only.</td>
<td>The three trajectories remained symbolic due to absence of binding practices.</td>
</tr>
<tr>
<td>Cultural-cognitive Institutions</td>
<td>ICTs valued as enablers of modernisation, tools for educational reform and fostering of economic development.</td>
<td>Reactive approach to fight corruption being a key constraint for economic growth and political stability. CSOs were seen as spaces for political instability.</td>
<td>Dominance of paper-based bureaucratic rationales in the absence of technological ways to manage public data.</td>
<td>Conservative rationales associated with the three trajectories constrain their progression.</td>
</tr>
<tr>
<td>Resources</td>
<td>Limited and symbolic political backing. Economic resources were available to acquire ICT</td>
<td>Limited and symbolic political backing, but sufficient to trigger a policy window. No evidence of economic</td>
<td>No specific resources observed.</td>
<td>Absence of political support to progress along the three trajectories was also reflected in limited</td>
</tr>
</tbody>
</table>
Critical juncture for OGD (1995 to 1999)

5.3. Critical juncture for OGD (1995 to 1999)

5.3.1. Introduction

In path dependency, the concept of critical juncture refers to the moment of uncertainty in the distant past when key decisions are taken by agents to change institutional trajectories. These conditions create a lock-in effect with future progression likely to occur on the same path. This is due to the feedback created by institutional trajectories, which leads to prohibitively high costs associated with switching to a different path. This study sets the period of critical juncture for OGD between 1995 and 1999. The rationale for selecting this period along the Chilean institutional trajectory is based on one key methodological aspect: during this period, institutional developments determined specific paths across the three institutional trajectories, which have had an impact on the subsequent planning, implementation and operation of OGD.

Literature on critical junctures and HI reflects that not all critical events occurred in the critical juncture period. Indeed, this period comprises the most relevant institutional decisions that have shaped institutional trajectories, but not the only ones. This research focuses on the period between 1995 and 1999 for studying critical junctures as it was during this time frame that modernisation, e-Government and transparency related institutions showed a significant influence on the future of OGD (see timeline in Figure 5.2). These paths are named primary institutional paths, since they were significantly shaped during the critical juncture period. Secondary institutional paths can also be

<table>
<thead>
<tr>
<th>Infrastructure across the Government, especially in the educational reform.</th>
<th>Support to implement transparency initiatives.</th>
<th>Availability of economic and technological resources.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentives</td>
<td>Fostering of economic growth and state modernisation, with an emphasis on projecting a positive image to Chilean society and international investors and organisations.</td>
<td>Fostering of economic growth and overcoming corruption externalities, with an emphasis on projecting an image of integrity to international investors / organisations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Own elaboration
observed: paths that originated before the critical juncture but which reinforce its trajectory. In this research, primary institutional paths are the transparency and digital government trajectories, and a secondary path is the data governance trajectory.

5.3.2. The digital government trajectory

The digital government trajectory emerged mainly as a result of the modernisation and reform of state policies adopted to minimise the negative impact of the Codelco corruption case. ICTs were perceived by the political elite as an effective tool to facilitate this reform, but they were not present at the core of the agenda (PSE-02; PSE-03; RA-03):

“The early modernisation efforts by Concertación did not see ICTs as part of a transformative agenda. They understood that digital technologies were useful tools to implement modernisation policies, but they did not use them as a central element to reform the Chilean state.” – Academic in digital government (RA-03).

In order for this reform to be materialised, President Frei created an inter-ministerial committee for the modernisation of the state appointing academics, technocrats and bureaucrats who were tasked with rethinking the structure of the government (PSE-03; RA-08) (Waissbluth and Inostroza 2006). It was hoped that this would lead to the creation of a better and less-bureaucratic government; and the inclusion of international standards would make the country more attractive to foreign investors – a crucial aspect of Chilean economic success in this young democracy (RA-03; RA-12) (Ramírez-Alujas 2004). The committee took these rationales into account when developing a strategic plan for public management modernisation, which comprised several initiatives such as an e-Government agenda, improvement of civil service recruitment systems, and a new public procurement strategy, among others. The plan led to the development of a technical committee on e-Government headed by the Ministry of Economy, which developed a specific e-Government report with 61 steps to fully incorporate ICTs into Chilean public administration (such as an e-procurement system; one-stop shops for
Figure 5.2: Timeline of historical events during the critical juncture period (1995-1999)

January '94: Corruption case at Codelco triggers political support for a modernisation agenda

April '94: President Frei calls for an inter-ministerial commission on Public Ethics

December '94: President Frei calls to an inter-ministerial committee on modernisation led by the Ministry of Economy

March '95: Strategic plan for public management modernisation – creation of an e-Gov committee

January '95: e-Gov commission delivers on e-Government policies

March '97: Strategic plan for public management modernisation – creation of an e-Gov committee

January '99: e-Gov commission delivers on e-Government policies

August '99: Law 19628 for personal data protection

January '99: Law 19653 for administrative integrity

December '98: Mr. Claude Reyes sued Chilean state in the Inter-American Court of Human Rights for denying access to public information

Source: Own elaboration
both citizens and firms; incorporation of electronic signatures and electronic documents; interoperability and digitalisation of public services; a governmental intranet; and a national video-conferencing system, among others) (RA-03; RA-12; IN-02) (Comisión Presidencial TIC 1999). However, during the critical juncture period this committee never gained the status of an agency or ministry that would have ensured its long-term sustainability and relative political independence, thus remaining dependent on top political executive support (RA-03; PSE-03).

Interviewees agree that, in addition to the notion of modernisation associated with this reform, the rationale for incorporating ICTs into this agenda was linked to demonstrating the adoption of globalisation practices to the developed world. As the developed world was experiencing a technological revolution with the expansion of the internet both in civil society and the public sector, there was a sense that Chile ought to project an image of a modern state to the world that also favoured its economic expansion (RA-03; RA-09; RA-12; PSE-03):

“The challenge of a developing economy like Chile is to create an institutional framework that fosters economic expansion and social equality. Thus we saw that ICTs were a good way to continue to make the Chilean economy more attractive and competitive, while making the state more efficient at the same time” – Academic in modernisation of the state (RA-12).

Despite the benefits for Chilean bureaucracy, these initiatives were not politically backed by a long-term regulatory institutional framework responsible for their operationalisation (RA-03; PSE-03), remaining coordinated only by an inter-ministerial committee (RA-03; PSE-03). While this approach facilitated the complex horizontal coordination that cross-sectoral digital government practices require, it did not provide the foundations for a long-term digital government agenda. Although a single ministry may have sped up the design and implementation processes for these initiatives, there was a preference for an inter-ministerial committee which was thought to be more appropriate for working across sectoral agencies (PSO-07; RA-03). Interviewees also suggest that the symbolism observed in the regulatory framework came from a lack of understanding from the top political elite; i.e. they did not fully realise the bureaucratic and political purposes associated with ICTs, thus partially disregarding the political side
of these technological interventions (RA-12). President Frei provided direct political backing to the Committee, however this was insufficient for the development of a long-term agenda as ICT initiatives were mainly pushed by a few institutional entrepreneurs (IN-02; RA-03). This approach came from the President’s rationale of technology as rapid creator of greater efficiency and economic growth compared to other bureaucratic approaches (RA-03; RA-12; PSE-03; PSP-03; PSP-12). This explains the allocation of the e-Government committee to the Ministry of Economy, with the purpose of obtaining economic benefits from ICTs, while political visions around technologies were partially relegated (RA-03; PSE-03):

“You can see over the years how the Chilean political elite have not had a clear political vision for digital technologies. They indeed know the operational role ICTs, and the political benefits they bring, but there is a lack of understanding of the politics of technologies. I think that explains the ups and downs in e-Government in Chile, and why different governments have not developed an institutional framework for its correct deployment.” – Academic in digital government (RA-03).

The introduction of ICTs during this period also represents the reinforcement of a technocratic rationale in Chilean public administration that led to the dominance of e-Government practices instead of a structural redesign of public management. Consequently, the modernisation agenda was dominated by e-Government practices, while re-engineering processes were underrepresented: hence digital government was merely a cosmetic initiative within an isolated, spontaneous and non-substantive modernisation process (RA-09), which was reflected in the absence of structural institutions to frame future innovations in this area.

This period is a critical juncture for the digital government trajectory, since it determined the foundations for future digital government interventions in the country. This period introduced ICTs on a symbolic rather than material level; i.e. the Government did not provide a regulatory and normative framework that could have ensured long-term sustainability of digital government. This period is also critical since it defined a mindset about ICTs in the public sector – ICTs were supported for efficiency and economic purposes, and with an operative or instrumental rather than transformative role. The impetus for digital government was not fully backed by political and economic
resources, hence it did not materialise into wider cross-sectoral digital government practices or the establishment of a leading agency or ministry. The political elite prioritised the symbolism of modernisation through ICTs to transmit an image of modernity, while no significant efforts to develop structural elements of an institutional framework were made. Scholars agree that this period represents a semantic transition: the concept of digital technologies for the public sector was introduced, and the institutional trajectory of digital government shows that Chile systematically adopted them as part of public service delivery (RA-03; RA-12).

5.3.3. The transparency trajectory

Similar to the digital government trajectory, concerns about transparency and integrity in public agencies emerged in response to corruption cases, in particular to the Codelco case in 1994. The concerns of the political elite that corruption may disrupt the weak legitimised political system as well as the incipient economy were the main rationales that drove the transparency agenda, as the country based its economic model on public integrity to attract foreign investors. The Chilean economic model was based on signing free trade agreements across the world (Boeninger 1997), and the country needed to control the political consequences of corruption in order to maintain its international reputation (RA-03; RA-12; CS-06). Interviewees admit that transparency and access to information were not included in the programmatic aims of Concertación during these years (RA-03; RA-12; PSO-03; IN-02). Indeed, they enacted a legal framework to control the impact corruption had on both political and economic systems during the critical juncture period (CS-01; CS-06):

“[Regarding the origin of transparency policies] I think it has been a mix of domestic demands and to modernise our institutions according to international standards... Chile was in debt with freedom of expression and information – a negative legacy of Pinochet’s dictatorship. On the other hand, there was an evident need to assure foreign investors and the private sector that Chile was a reliable country to invest in. Now, we can observe that all advances in transparency and access to information in Chile have occurred as a political reaction to corruption cases, I think it is possible to trace those reactive changes in these areas.” – Civil society advocate in transparency (CS-06).
In this political context, the Codelco case and its political and economic consequences made President Frei prioritise transparency and integrity within the public sector, leading to the creation of a dedicated commission for transparency and integrity (Poblete 2009). The commission was given the mandate to increase transparency standards through public policy suggestions and legal initiatives given the “increasing demands for transparency in the close relationship between public and private sectors” (Rehren 2008, p.5). In 1996, the commission delivered a report with 41 recommendations to frame integrity within the public sector, including a constitutional reform to inscribe transparency within Chile’s core principles, a freedom of information act, and a series of practices to ensure civil servants’ integrity (Comisión Nacional de Etica Pública 1996). Additionally, a FOI act was being discussed in Parliament, although yielding no significant outcomes during this period (RA-09). The technical and political momentum did not have sufficient political backing nor resources to reach bipartisan support and promulgate a comprehensive framework for transparency and access to information in line with international standards (CS-01; CS-06). As a consequence, the only institutional advance with regard to increasing transparency during this period was the law 19.653 on administrative probity (CNC 1999b), which concentrated most of the recommendations on transparency and access to information made by the commission (RA-09; CS-06). This law symbolically incorporated values of transparency, publicity and integrity into Chilean public law without embedding these principles in a dedicated, material framework for access to public information and transparency procedures, or sanctions for corruption cases (CS-01; CS-06; RA-09). As a result, the boundary between publicity and opacity was still blurred in practice: as there was no comprehensive framework that defined principles and procedures to access public information, citizens often took their request of public information to court since sectoral public agencies systematically refused to respond to them (RA-09):

“Therefore, the law 19.653 has brought about? The law incorporates some recommendations made by this Commission, but with regard to transparency and access to information, it relies on political judgement to determine data publicity. This means that information can be easily denied by public agencies based on dedicated clauses to determine the publicity of
Path Dependence analysis of OGD institutional trajectories

"public information. The problem is that the exception became the rule." – Academic in transparency (RA-09).

Interviewees suggest that this period was relevant for the transparency trajectory as it established the dominant reactive rationale to fight corruption cases and opacity of information (CS-01; CS-06; RA-03; RA-09). The limited regulatory and normative advances in transparency observed during this period were insufficient to shape the rationales for transparency of sectoral agencies and civil servants. The law helped the political elite projecting an image of transparency and integrity and to contain the political consequences of corruption cases. However, the culture of opacity remained (RA-03; RA-09). Additionally, the limited extent of framing transparency achieved during this period reflects the Chilean collective perception of isolated cases of corruption and the need to project an image of integrity inwards and outwards. Since corruption was localised in specific areas and did not spread across public agencies, the political elite observed that a wider materialisation of the law was not needed. Hence, institutional efforts were focused on incorporating high-level regulative symbolism, which did not materialise in formal and functional regulative and normative institutions. This limited institutional framework did not fully control the occurrence of corruption cases and disputes with Chilean citizens with regard to access to public information, as evidence from the following decade (2000-2011) suggests (CS-06).

**BOX 5.2: CSOs during the critical juncture period**

The period of critical juncture observes no significant changes for civil society organisations. Facing a complex funding scheme, the Government did not undertake any major action to provide them with more resources during this period. Interviewees from civil society admit that funds offered by the Government during this period were mainly used to pay off political and personal favours, reducing CSOs to a small group of people with similar political ideologies (RA-01; CS-03). While funding was a major constraint, existing regulation to create new organisations continued to be complex and time-consuming. Laws and decrees defined tedious steps for CSOs to become a legal entity that were often more complex than for private entities (RA-01; CNC 1993; CNC 1995). The funding and administrative scheme continued to constrain the expansion and dynamism of CSOs, whose influence was intentionally weakened to maintain political
stability and protect Chile from internal social chaos. However, the increase in corruption cases in the next years would open the playing field for new actors, which played a relevant role in the institutionalisation of transparency in the country.

5.3.4. The data governance trajectory

During the period of the critical juncture for OGD, only symbolic legal advances in data management were brought about by regulating personal data protection, while technical aspects related to digital public data were disregarded (PSP-07). Similar to previous institutional trajectories, the Chilean political elite did not regard public data governance as being part of programmatic reforms to modernise the Chilean state (PSP-07; RA-11; PSO-03). Interviewees admit that political support to promote these changes was based on the need to sign international free trade agreements against the background of an existing bureaucratic view on public data (CS-06; RA-03; RA-12):

“There is a direct connection between the enactment of data protection regulation and creating the conditions for foreign investment to operate in Chile. This was one of the main drivers to create political momentum to discuss data protection regulation in Chile, so the country facilitated the entry of foreign economic resources that required a better data protection regulation to operate in our country.” – Civil society advocate in personal data protection (CS-03)

As stated, the limited progression in data management only emerged in order to ensure personal data protection (CS-03; RA-11). In 1994, Chile did not provide any legal framework to ensure personal data protection by public and private sectors (statistical data was already regulated by law 17.374). In order to comply with international requirements and address the risks emerging from automated data manipulation, Chile passed the law 19.628 for personal data protection that ensured an individual’s fundamental rights of freedom and privacy (CNC 1999a). Although Chile was a leader in data protection regulation in the region, the extent of the law seems to be limited (RA-11; CS-03; PSP-07). Main concerns are related to the gaps the law presents in terms of not explicitly awarding the ownership of data to individuals, as well as incorporating legal entities as protected data owners (CS-03; PSP-07). Under this law personal data held by public agencies is better protected than data kept by private companies (for
example, the law does not cover exporting personal data to foreign markets). In practice, public agencies are restricted to collect and share relevant and anonymous data only for the purposes of public policy development, while private companies find themselves in a privileged position since they can more easily trade and collect personal details for business purposes (CS-03). This emphasis on sanctions to public data holders had an impact on civil servants’ rationale to disclose public data: the fear of severe sanctions for violating the law became a major constraint for data disclosure processes that may deal with personal details (CS-03; PSP-03; PSP-09). Interviewees admit that civil servants were reluctant to disclose public information that may compromise personal data protection given the sanctions stated for public data holders (CS-03; RA-11). Whilst these practices represented a major improvement for rights of the individual, they were not fully reflected in a wider framework for data governance, thus constraining the rationales for data management by public officials and limiting the impact of data disclosure initiatives:

“The law is bad, unclear and insufficient. It is easy to make mistakes, and it gives enough room for interpretation that data disclosure can easily be rejected by legal discrepancies, thus decisions have to be taken by both technical and legal teams. Hence, for us as public data managers, it is really complex to interpret when we are fulfilling or violating this law, it has too many gaps for data disclosure. And for us as civil servants it is risky since it endangers citizens’ privacy protection.” – Public sector practitioner in data management (PSP-12)

While limited advances can be observed in data protection management (and its impact on civil servants’ rationales for data disclosure), regulatory or normative advances in broader data management practices are not observed in this period (CS-06; PSP-07). Interviewees suggest that data governance was not relevant for the political elite, including advances in the digital management of public data (PSP-08; PSP-12):

“There has been an absence of data management policies in Chile, and mainly because it is not ‘sexy’ [it does not bring political returns] for the political elite who have to deal with the complexities of such a policy at the Central Government.” – Public sector practitioner in data management (PSP-07)
Hence, during the critical juncture period Chile only experienced symbolic changes in data governance. Cultural-cognitive changes occurred because of a limited data protection regulation that constrained civil servants in data disclosure and did not incorporate specific issues emerging from digital data management. Indeed, concerns for digital data governance solely emerged thanks to the modernisation of the state and digital government agendas, i.e. the interoperability frameworks (PSP-07; PSP-12; RA-12). The need to bring Chilean institutions in line with international standards acted again as an exogenous incentive to modify those institutions, but it did not have a major impact on mainstream data management practices.

5.3.5. Outcome of the critical juncture period

The critical juncture period provided the foundations for future innovations that intersect the three institutional trajectories. This period shows that the semantic transition of modernisation and transparency was expanded between 1995 and 1999 as an institutional reaction to exogenous conditions such as corruption cases and the need to project an image of modernity, political stability and integrity. It is possible to identify an inward projection of an integral and stable political system to Chilean citizens, as well as an outward projection of modernity and developed institutions to foreign investors and international organisations. These cultural-cognitive aspirations have influenced the promotion of symbolism and soft regulative and normative institutional arrangements in the form observed during the critical juncture period, instead of structural, long-term institutions.

The introduction of digital government as part of the modernisation agenda shows that cultural-cognitive rationales for the adoption of ICTs focused on usefulness and efficiency. However, digital government policies were not adequately embedded in the public sector due to the lack of regulatory and normative institutions observed during this period. While efforts were concentrated on the symbolic and material aspects of informal institutions as part of the semantic transition, there was a reluctance to formalise institutions as it would have required high levels of horizontal and vertical coordination. Instead, the model of committees and coordination teams – as examples of high-level normative institutions – only required political coordination at high levels, thus being dependent on political leadership at the sectoral level. Scholars suggest that
this lack of appropriateness had a significantly negative influence on cross-sectoral initiatives. Hence, successful sectoral projects or initiatives were those which concentrated on vertical coordination, or required minimum horizontal coordination. Evidence also suggests that digital government practices, rather than being perceived as promoters of democracy and participation, were purely seen as enablers of efficiency and economic progress, thus replicating cultural-cognitive rationales in future regulative and normative institutions.

Like the digital government trajectory, institutions for transparency and accountability remained in the symbolic semantic transition rather than materialised in formal institutions. Transparency, probity and access to information were symbolically introduced into legislation, but they were not backed by a set of formal procedures to put them in practice. The political elite avoided materialising this framework into formal institutions, and rather built an image of transparency and integrity, while corrupt practices continued to exist during Concertación’s governments. As evidence suggests in the following sections, the deeper the corruption crisis, the stronger the political reaction was, mainly manifested in the introduction of regulatory and normative institutions. It is also noticed that civil society organisations remained inactive under a weak institutional framework, and did not take any significant action during the critical juncture period. During the structural persistence period that followed, CSOs started to become active transparency campaigners responding to a further increase in the number of emerging corruption cases.

The relevance of the period 1995-1999 for future innovations is that critical junctures created institutional patterns, i.e. paths that were likely reproduced in initiatives emerging from the intersection of the three institutional trajectories during the period 2000-2011 and beyond. This period is crucial given institutions emerging from these trajectories would likely inherit and reproduce their institutional features and paths under the concept of positive returns; i.e. the cost of reversing institutional trajectories is higher than costs associated with continuing along the existing path. As can be seen in the following sections, innovations emerging from the intersection of these three trajectories would continue to emphasise symbolic rather than material institutions. Following the punctuated equilibrium process, these patterns would be reproduced,
Critical juncture for OGD (1995 to 1999)

while modifications occurring across the years – as part of a natural gradual change in institutions – would create institutional conditions for the emergence of initiatives such as OGD. A summary of the institutional features observed in the critical juncture period is presented in Table 5.5 below.

Table 5.5: Institutional features during the critical juncture period (1994-1999)

<table>
<thead>
<tr>
<th>Institutional component</th>
<th>Digital Government</th>
<th>Transparency</th>
<th>Data Governance</th>
<th>Level of Institutionalisation (Symbolic vs Material)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Institutions</td>
<td>Symbolic regulatory institutions reflected in a commission and a lack of comprehensive legal framework for digital government. Political backing insufficient for long-term strategies and legal framework.</td>
<td>Reactive and symbolic legal advances on public integrity did not frame transparency and access to information. Legal advances driven by corruption cases. No material or practical control of corruption.</td>
<td>Legal framework for data protection only, which regulated public officials instead of private sector. Regulation for digital data is not addressed.</td>
<td>Critical junctures triggered a process of limited institutionalisation of regulatory institutions. Emphasis on symbolic regulatory advances did not adequately address the framing of these institutions.</td>
</tr>
<tr>
<td>Normative Institutions</td>
<td>Period observes limited practices and objectives for e-Government, but it lacks a comprehensive operational framework. A limited operational plan delivered at the end of the period and to be implemented over the coming years.</td>
<td>Symbolic practices to facilitate access to information did not operationalise access. Citizens not sufficiently empowered to access public data. Sectoral objectives for transparency remained related to opacity and secrecy of public information.</td>
<td>No operational advances for data governance observed. Symbolic introduction of data governance in modernisation manifestos but not materialised over this period.</td>
<td>Practices and strategies were incorporated at a symbolic level in agendas and plans with no further materialisation during the period. General strategies were not fully reflected in a set of cross-sectoral practices and objectives.</td>
</tr>
<tr>
<td>Cultural-cognitive Institutions</td>
<td>ICTs seen as enablers of modernisation to deal with corruption and inefficiency, and of economic development. Symbolic valuation (underestimation) of the politics of e-Gov initiatives.</td>
<td>Reactive approach to corruption as constraint of economic growth and political stability. Symbolic values of transparency as image of integrity rather than core democracy ideals. Transparency did not spread in public agencies.</td>
<td>Symbolic valuation (underestimation) of data governance, as they are limited to implementation to achieve international standards and to improve interoperability.</td>
<td>Cultural-cognitive institutions remained testimonial (symbolic) rather than transformative (material). Underestimation of the politics of the three trajectories. Each seen mostly as enablers rather than core embedded institutions.</td>
</tr>
<tr>
<td>Resources</td>
<td>Short-term political support to develop an agenda but insufficient to provide an institutional</td>
<td>Highly symbolic political resources available for limited introduction of transparency-related</td>
<td>Insufficient political resources to lead a data governance agenda during the critical period, and</td>
<td>Overall, higher but insufficient level of political resources rather than economic and technological</td>
</tr>
</tbody>
</table>
5.4. Process of punctuated equilibrium (2000 to 2011)

5.4.1. Introduction

Within path dependency, the process of punctuated equilibrium relates to the reproduction of institutions according to the features defined during the critical juncture period. Across the punctuated equilibrium process, institutions continuously increase the cost of switching to a different path (one that has different institutional features, and which may lead to different outcomes). During this period, institutions increase the lock-in effect facilitated by critical junctures, while at the same time experiencing change through gradual modifications: new events continue to shape institutional trajectories, while maintaining some key patterns which then create the lock-in effect. More specifically, punctuated equilibrium refers to two sub-processes: structural persistence and reactive sequence. While structural persistence shows the reproduction of institutions that were formed during the critical juncture period, reactive sequence describes the reaction of those institutions to events that can modify their trajectories. The rationale for dividing the punctuated equilibrium into two sub-processes is the nature of any institutional trajectory: stability vs change. Institutions become stable over time, but they also encounter punctuated change, which shifts institutional features and trajectories, albeit to a lower extent than the impact of the critical juncture on those
paths. Indeed, we cannot assume that change may only occur once during the punctuated equilibrium process as institutions regularly deal with change.

The timeframe of the structural persistence period is set from 2000 to 2005 (see Figure 5.3) – covering President Lagos’ term – which refers to the period of reproduction of institutional features of the three trajectories here observed, i.e. an emphasis on symbolic rather than material institutions. By contrast, the reactive sequence period from 2006 to 2011 (see Figure 5.4) – covering President Bachelet’s term (2006 to 2009) and the beginning of President Piñera’s term (2010 to 2011) – shows how the institutional trajectories change due to institutional stimuli, such as the change in Presidential priorities, a new wave of corruption cases and the condemnation of opacity practices within the Central Government by the Inter-American Human Rights Court. Reactive sequences can be identified thanks to the enactment of a new institutional framework provided by the freedom of information act (FOIA) and open government. Unlike Presidents Frei and Lagos who assumed a dominant technocratic rationale, President Bachelet had a more politicised agenda of social welfare and the reduction of inequality. Her emphasis on stronger legal frameworks for transparency and access to information contrasts with the weakening of the digital government and data governance trajectories between 2006-2009 (RA-03; RA-12; PSP-03). The rise of the new transparency law 20.285 enacted in 2008 intersected and shaped the three trajectories; i.e. the transparency framework opened up an opportunity to frame access to public information (transparency and data governance trajectories) via digital means (digital government trajectory).

One of the challenges associated with adopting a theoretical framework such as path dependence is that it cannot be assumed that the three trajectories shift according to historical events at the same time and to the same extent. Indeed, history is complex, and requires a careful analysis of how historical events occur and are connected to each other, in order to deconstruct the impact of historical politics on a specific event. This section encounters a similar challenge: the rationale to define both the structural persistence and reactive sequence period cannot assume that the three trajectories change at the same time and to the same extent. This section attempts to analyse these
historical dynamics, while respecting the inherent variance of these trajectories in terms of extent and time of change.

5.4.2. The digital government trajectory

5.4.2.1. Structural persistence (2000 to 2005)

The structural persistence period of the digital government trajectory sees the growth of e-Government policies following the limited extent of institutionalisation of these practices observed in the critical juncture period. The 61 policies suggested prior to the end of President Frei’s term were the basis for a short and medium-term directive to develop further e-Government initiatives at the executive branch in areas such as procurement, tax systems, internal communications, and interoperability, among others. Across these different areas, an effort to build infrastructure to modernise the state through ICT-intensive policies can be observed.

With the significant value of the Committee’s 61 policies, this decade faced several challenges to implement and adopt digital government initiatives. Acknowledging the political foundations of e-Government, President Lagos identified that e-Government initiatives may require higher levels of political backing to facilitate their coordination. He thus moved the leading team of the Committee from the Ministry of Economy to the Ministry General Secretariat of the Presidency (SEGPRES) (although ICT-oriented policies for economic purposes remained in the former). The political resources held by SEGPRES were beneficial for a sustained expansion and adoption of e-Government practices over this period (PSP-03; PSP-12; RA-03). In contrast to this operational approach, SEGPRES solely worked as a coordinator unit and the project did not achieve a higher material level of regulatory institutionalisation form such as a permanent or long-term agency, ministry or regulatory body (RA-12).

The digital initiatives carried out by President Lagos were highly politicised, which led him to promulgate a soft regulatory framework in the form of a Presidential Directive. The Directive was aimed at committing public agencies and ministries to the development of short and medium-term ICT policies (Lagos 2001). With the objective of
Figure 5.3: Timeline of historical events during the structural persistence period (2000-2005)

Source: Own elaboration

- March '00: President Lagos takes office
- May '00: Creation of PRYME – State modernisation and reform programme (SEGPRES)
- June '00: Presidential Instructive 011-2000 for modernisation agenda
- October '02: Corruption case “Coimas”
- 2002-2005 e-Government Agenda (SEGPRES)
- March '03: Corruption case “MOP-Gate”
- December '04: Series of decrees for electronic data management
- December '05: Repeal of decree against transparency
- August '05: Constitutional modification to add the right of access to public information
- January '05: Parliament motion Gazmuri-Larain for a FOIA
- March '00: President Lagos moves e-Government strategies from Ministry of Economy to SEGPRES
Figure 5.4: Timeline of historical events during the reactive sequence period (2006-2011)
Source: Own elaboration
providing a more sustainable and organised structure, President Lagos developed PRYME (Project of Reform and Modernisation of the State), which assumed the execution of e-Government initiatives at SEGPRES. PRYME represents a milestone in the determination of the foundational rationales for the development of e-Government projects: while previously underpinning rationales of the inclusion of ICTs had a wider scope (for economic, social and bureaucratic purposes), PRYME reflected primarily bureaucratic aims related to the adoption of e-Government practices (Araya and Barriá 2008; Molina 2006).

This programme was responsible for leading a series of projects with significant political and international prestige. The projects became emblematic examples of e-Government and were used by political leaders to demonstrate the modernity of the Chilean state (PSE-03; PSO-02; PSO-05). Interviewees agree PRYME represented a step forward for e-Government in the country (RA-03; IN-02; PSE-03; PSO-02; PSO-05; PSO-07; RA-12). President Lagos had a positive political vision about the strategic role of ICTs in public service delivery, reflected in both the empowerment of PRYME and direct funding from the Ministry of Treasury during his term. To promote the adoption of e-Government initiatives by civil servants, Lagos provided economic resources for a performance-based bonus programme to implement e-Government initiatives – although only being implemented towards the end of his term in 2006. While all e-Government initiatives were led by PRYME at SEGPRES, the agenda of ICTs for economic purposes – such as the promotion of ICTs among SMEs and large companies, and the development of digital industries - remained at the Ministry of Economy. This approach required a higher degree of political coordination compared to organising all digital governance initiatives in only one ministry. However, SEGPRES’ political reach was sufficient to lead and monitor these initiatives, which were mostly sectoral and required one-to-one coordination between SEGPRES and sectoral agencies. Interviewees suggest PRYME had elements of a successful public policy as it comprised some forms of material regulatory, normative and cultural-cognitive institutional features: relevant problems to be solved, political support, funding, committed civil servants, and a strategic view of ministries and public offices (PSP-03; PSO-07). The political leadership and vision of e-Government
of President Lagos were crucial, as well as recruiting an excellent team to implement the programme (PSP-12).

Despite these positive institutional features, PRYME still showed a lack of a structural institutional framework for e-Government from the critical juncture period that did not ensure its long-term existence. PRYME lacked a structural regulatory background, and it was only defined as a project with limited funding until the end of Lagos’ term (2006) (PSO-03; PSP-03). While this approach allowed for a speedy implementation of the programme, it did not provide stronger institutional foundations to protect PRYME from external vulnerabilities such as changes in government or programmatic prioritisation (PSP-03). An evaluation report developed at the end of Lagos’ term, which was developed during Bachelet’s term, suggests that PRYME required institutionalisation in the form of a permanent unit, agency or ministry to ensure the success of current and future e-Government (SEGPRES 2007). However, this did not occur:

“President Lagos’ view on modernisation and e-Government was crucial for the development of PRYME at SEGPRES in those years. This project led to the digitalisation of some public services and other relevant ICT-based modernisation projects at SEGPRES. President Lagos committed resources and people he trusted to the implementation of this project. However I think he relied on following governments having a similar view on the role of ICTs in the public sector. That is why he did not formalise this project into a long-term institution. The problem is that such a positive initiative can be threatened by different political priorities or views on digital technologies, as happened in the following government.” – Former MDGU official (PSO-03)

An example that reflects this political scenario of a positive initiative that was not fully backed by a comprehensive institutional framework is the case of ChileCompra. As part of the expansion of e-Government initiatives, Chile developed an internationally awarded e-Procurement system during Lagos’ term. ChileCompra modernised the public procurement process, with the aim of making it more transparent and efficient. ChileCompra prided itself on having saved US$100 million for the Chilean state, mainly by reducing prices of procured goods and services and a more efficient procurement system (Kleine 2013). Early studies on its institutional deployment show that, whilst
ChileCompra was embedded in sectoral contracting practices, it was not immediately backed by a unified law that would have regulated procedures and sanctions as well as facilitated homogeneous implementation across sectoral agencies (Hussmann 2004).

Nonetheless, the country was internationally recognised for these initiatives, assuming a pioneering role in e-Government among regional countries. Some interviewees doubted the veracity of this international position based on the handicaps of current and past policies and rationales for digital government seen in the country:

“It seems that the Government knows how the [e-Government] rankings work and then we prepare ourselves for the ranking; if the ranking asks for a webpage in English, then we do it because it will help us rank higher. I think that is the reason why we rank well when actually if you see what happens is not that much. We are still taking benefits from past and isolated successful experiences” – Public Sector Chief Information Officer (PSO-07)

Overall, the structural persistence period shows the contrast between a) the expansion of material cultural-cognitive and normative digital government institutions, with resources and incentives to further institutionalise those initiatives, and b) an absence of political backing of structural regulatory institutions to ensure their long-term existence. The lack of structural institutional features for the adoption of digital governance practices, which was present in the critical juncture period, is also seen during the structural persistence period, albeit showing a less substantial incorporation of practices across public agencies during Bachelet’s term. In particular, the lack of high-level regulatory institutions contrasts with the strong political support and resources given by President Lagos and his e-Government team, whereas President Bachelet did not continue with this programme despite its national and international repute.

Interviewees confirmed the leading role of President Lagos and his personal interest in pushing for e-Government practices and the introduction of ICTs within public agencies, and the appointment of key actors leading those initiatives. President Lagos was unable to embed those objectives and practices with both civil servants and future political leaders, hence making these initiatives vulnerable to shifts in cultural-cognitive rationales driving ICT initiatives in the Chilean government; i.e. a lack of clearly aligned objectives resulted in aims changing often over years, with Lagos pushing for a less
bureaucratic state and Bachelet promoting economic growth. The lack of deep institutionalisation also contrasted with the emphasis on the discourse of political leaders. There was a significant effort to obtain international reward from successful initiatives that helped increase efficiency, such as the e-Procurement (ChileCompra) and e-Tax (SII) systems.

**BOX 5.3: ICT-related civil society organisations**

CSOs are underrepresented in the ICT arena. Only one politically relevant organisation is recognised by interviewees: “Fundación País Digital” (FPD). This organisation, funded by large Chilean and international IT companies and arguably the only genuine ICT-focused CSO existing in Chile until 2009, pushes for a full incorporation of ICTs in economy, education and governance. FPD has traditionally been led by business economists. While the organisation participated in the development of digital government agendas, its involvement has primarily channelled the interests of large IT vendors and software development firms rather than representing local civil society (PSO-05; PSO-07; CS-05).

### 5.4.2.2. Reactive sequence (2006 to 2011)

A reactive sequence can be observed in the period between 2006 and 2011 with several shifts in the institutional trajectory of digital government took place. When Bachelet took office in 2006, drastic changes affected the e-Government programme. Given the lack of a comprehensive regulatory and normative institutional framework for digital government in Chile, Bachelet’s view on digital government as a driver of economic growth affected the weakly institutionalised PRYME. Initially, PRYME remained in SEGPRES under the same name, but a few months later the President awarded an economic-oriented perspective to the agenda by promulgating a presidential decree to form a new ministers’ committee for digital economy (Bachelet 2007). Under this scheme, PRYME was cancelled and the coordination of existing e-Government initiatives was transferred to a Digital Secretariat at the Ministry of Economy. Interviewees regard the case of PRYME as evidence of the limited impact this institutional framework for digital government had on e-Government initiatives: being hosted by the sectoral
Ministry of Economy, e-Government initiatives lost political empowerment, and during this period the agenda did not make major advances (RA-03; RA-10; PSO-03; PSO-04; PSP-12). The Ministry of Economy did not have enough political influence to coordinate other public agencies. Rather than expanding a national e-Government agenda, this rearrangement reduced it to a few sectoral initiatives, most of which were introduced during Lagos’ term. Two examples are the interoperability initiatives such as PISEE – project for state’s services interoperability – which implemented platforms and protocols to interoperate between different agencies, and the public metadata administration system (AEM) (IN-02; PSO-03; PSP-12):

“When President Bachelet took office, she cancelled PRYME and decided that all ICT initiatives had to be at the Ministry of Economy and not at SEGPRES. I think with this decision she lost the focus. There were political issues there, and the authorities did not fully understand ICTs; they thought that they were more closely linked to economic growth than bureaucracy or democracy. However, this resulted in digital government initiatives becoming sectoral rather than cross-sectoral policy. Initiatives were no longer coordinated by SEGPRES.” – Public sector practitioner at MDGU (PSP-03)

As part of the dissolution of PRYME, the initiatives that were developed during the rest of Bachelet’s term came from this and previous digital committees, with several ones being included in a digital strategy led and developed by the Ministry of Economy (Gobierno de Chile 2007). The issues observed during the end of the structural persistence period were reinforced during the initial years of the reactive sequence: e-Government at the Ministry of Economy lacked political legitimacy, making political coordination more difficult. This affected the commitment of public agencies to implement other e-Government projects, i.e. they relied on sectoral capacities to lead and implement these initiatives. Interviewees highlight Bachelet’s lack of a political vision for digital technologies as a reason for the setback in e-Government initiatives. While Lagos is recognised as a key promoter of the advances during the past period, the lack of interest showed by Bachelet during this period is seen as one of the main reasons for the limited expansion of e-Government initiatives (PSO-01; PSP-03; PSP-13; RA-10):

“President Bachelet did not have a clear idea on the role of politics in digital government. In her first term, she was focused on a social
agenda, and e-Government and other agendas were relegated. As the authorities did not have sufficient understanding of digital technologies, PRYME was transferred from SEGPRES to the Ministry of Economy based on the idea that digital government may foster economic growth.” – Former MDGU official (PSO-03)

The absence of strong political coordination and legitimacy thus revealed the different capacities of e-Government and the associated visions within sectoral agencies. Indeed, the topology of IT units across the Government is diverse: while some units develop software and operate sophisticated hardware, others only provide technical support and maintenance (IN-02; PSO-03). The heterogeneity of these agencies exposes them to sectoral political visions of technology, deepening or weakening their sectoral ICT agendas, and being a constraint for cross-sectoral initiatives. The sustainability of these projects over the period is often related to the presence of policy experts with ICT knowledge, such as lawyers or business engineers, relegating IT experts to operational roles.

Another institutional shift in a weak and changing trajectory of digital government occurred when President Piñera took office in 2010. Initially, the lack of a clear rationale to support the use of ICTs for governance purposes led Piñera to not pursue a clear and stable policy over the initial years of his term. While in 2010 the e-Government unit continued at the Ministry of Economy, political conflicts at its strategic level and a more political vision to coordinate ICT initiatives within the public sector resulted in the Unit returning to SEGPRES (IN-02; PSO-01; PSP-03). President Piñera appointed one of his closest collaborators from the private sector to lead the new Modernization and Digital Government Unit (MDGU). This direct political connection was crucial for the purposes of MDGU: initiatives that would bring stronger political credentials had direct political support from the President, especially those aiming at efficiency and less bureaucracy (PSO-02; PSP-10).

Once MDGU was formed, a 4-year e-Government strategy was launched to frame the activities of the Unit under three major rationales: an efficient, citizen-centric and open government (PSO-02; PSP-03; PSP-10). In addition, a series of technologists working in successful ICT projects across the public sector were appointed, in order to operationalise this agenda – such as practitioners who implemented the law 20.285 –
who had a key role in the design and deployment of OGD in the following years. This new team, being responsible for digital government, had a tactical private sector and project-oriented rationale that did not follow existing bureaucratic logics.

Despite relatively strong political support, MDGU continued showing similar institutional features as previous projects: it solely remained a project within SEGPRES. While this soft structure was useful to quickly kick-off the Unit and develop projects by circumventing bureaucratic barriers (e.g. projects with political or budget allocation challenges), it provided limited regulatory and normative features such as economic resources and political empowerment within the Government to carry out key cross-sectoral projects and to make other ministries to adhere to them. Interviewees admit that this political sponsorship was aimed at obtaining timely impact of these policies rather than looking at long-term purposes. Indeed, the main project of the Unit was “ChileAtiende”, a worldwide renowned one-stop shop for public service delivery, which was the operational core of MDGU. Interviewees agree that this project had major political support due to the limited costs associated with its implementation and the direct political rewards for the President to deepen his rationale of bringing better governance practices to make the government more efficient.

“Globally, there was a hype around open government, a fashionable policy led by the US. For us it was easy. There was nothing new to create; we only needed to copy what was being done in many other places. In our Unit, the most important project was ChileAtiende because of its political impact for citizens and public services, as well as the political reward our Unit received. This emphasis was more important than any other open government policies, which were complementary to ChileAtiende” – Public Sector Practitioner in ICTs (PSP-10)

While ChileAtiende has received most of the political support, MDGU has not been financially supported to the same extent. The Unit spent most of its budget paying for outsourced technical infrastructure to implement PISEE (PSP-10; PSP-03). Every year, MDGU is audited, reporting compliance indicators and budget expenditure, in order to renew its annual budget:
“MDGU has to politically and economically validate itself on an annual basis. Think about this in the context of budget reductions: our Unit’s budget has decreased and people were sacked because of this limited financial plan. For SEGPRES it is much easier to divert money from a project that does not produce political benefits for its core business, to a different initiative. Because MDGU is still a project within SEGPRES, if it was a service or agency it would be exposed to that risk.” – Public Sector Practitioner in ICTs (PSP-10)

The lack of institutionalisation in MDGU also caused other political problems, such as the hierarchical legitimacy of the Unit within the Government. Despite the provision of resources for political coordination through SEGPRES, the director of MDGU was only a project director, and was not perceived as an equal counterpart by other service directors from sectoral ministries (PSP-10; PSP-03). The lack of empowerment of MDGU contrasts with the mandate by President Piñera to politically coordinate and lead both e-Government and open government agendas. This disparity shows the two sides of the coin: while ICTs may have been perceived as creators of political reward – thus receiving political support – officials at the Unit were not sufficiently empowered to achieve those aims (PSP-03; PSP-10; IN-02; RA-03). This may mirror the limited knowledge of the political and organisational implications of technology, and how they interact with existing institutions and political forces through reinforcing or constraining them.

Overall, the progression of the digital government trajectory shows a continuous lack of institutionalisation in the form of material regulatory and normative institutions, with volatile cultural-cognitive discourses driving limited institutionalised trajectories. In periods of stronger political support, higher levels of institutionalisation in the form of material practices, binding regulation, strong and aligned cultural-cognitive rationales, and support by resources and incentives were achieved. In contrast, in the absence of this top political support, initiatives had diffuse rationales, and they did not include other supporting regulatory or normative institutions that would have made them less vulnerable to changes in ideologies. While political leadership anticipated the relevance of pushing for digital government initiatives, there was limited knowledge and emphasis on formalising those initiatives into long-term institutions. However, changing discourses and objectives contrasted with a path of emphasising digital government to promote modernity and leadership; the example of ChileCompra shows how the
political discourse valued the country’s leading role globally in implementing digital technologies, and how this contrasted with the continued lack of regulatory institutions put in place during this period. ICTs continued being functional vis-a-vis the outward political discourse, thus becoming instrumental to those driving political ideologies.

5.4.3. The transparency trajectory

5.4.3.1. Structural persistence (2000 to 2005)

During the structural persistence period, the transparency and access to information trajectory shows similar institutional features as during the critical juncture period. The period between 1995 and 1999 showed a limited introduction of symbolic regulatory institutions in the transparency and access to information trajectory and no material procedures to facilitate access to information in the country. However, these advances were useful to calm the political commotion caused by corruption and to continue to project Chile’s image of integrity. The insufficiency of these advances can be observed during this period, as citizens were still not able to access public data in both passive and reactive formats (RA-09; CS-06), facilitating the emergence of new corruption cases in the country in the following years.

When President Lagos took office in 2000, his administration reinforced this limited framework by withdrawing FOI act discussions from the Parliament, and just promulgating the Decree 26 (CNC 2001). This regulation entitled civil servants to decide on the level of secrecy vs publicity of public documents (RA-09; CS-01), and facilitated the definition of more complex conditions to access public data. Referring to their compliance with this framework, civil servants systematically rejected data requests (RA-09). Characterised by the conflict between transparency and opacity, this period represented a step backwards with regard to access to information in the country, and revealed the lack of material institutionalisation of transparency in the three institutional forms – lack of material regulation, lack of formal procedures to publish and request public information, and a dominant rationale of low levels of transparency among the political elite (RA-09):

“The transparency framework enacted during Frei’s government meant that between 1999 and 2004 we lived in a period of total secrecy and opacity. The few advances observed during his government were
lost. As the national policies for transparency were insufficient, some emblematic cases of opacity had to be taken to international courts.”
– Academic in Transparency (RA-09)

Under this opaque framework, Chile faced a series of corruption cases between October 2002 and March 2003 incurring total costs of US$300m due to falsification of legal permits, illegal selling of public mutual funds to private firms, and payments of illegal salaries to public servants by private companies (CDH 2015) – cases which produced a new severe crisis in the political elite. This crisis was about political legitimacy rather than the economy, leading to the development of a more substantive transparency agenda with bipartisan support (Poblete 2009). The crisis led to a bipartisan committee for transparency and public integrity, which suggested several reforms during this period, such as regulation of lobbyists, transparency in electoral processes, and transparent recruitment processes of public officials and civil servants, among others. Simultaneously, the decree 026-2001 was derogated in Parliament, and a joint initiative between the two main political coalitions (known as the Larrain-Gazmuri motion) started discussions in 2005 to promulgate a Freedom of Information act. Most importantly, a constitutional modification was enacted to include the principles of integrity and publication of public actions and information (CNC 2015; Rehren 2008):

“The exercise of public duties mandates its holder to fulfil the principle of integrity in all their actions. All actions and resolutions from the branches of the State are public, as well as its grounds and procedures. Nonetheless, only a law of qualified quorum may determine their secrecy, when publicity affects the fulfilment of public duties, citizens’ rights, and national security and interests.” (CNC 2015)

Although some interviewees recall the symbolic relevance of this bipartisan agreement for transparency (RA-09; CS-06), access to public information remained unregulated in practice (RA-09). Citizens still did not have any dedicated framework with clear procedures, responsibilities and rights to access information (RA-09; CS-01), and had to take their requests to court in order to exert their constitutional right. Although this period symbolically introduced transparency and access to public information into the Chilean legal system, these were not backed by a comprehensive framework:
“I think this period [Lagos’ presidency] observes steps in the right direction but it did not bring changes for common people as they still could not access information. The key is that Chilean politicians reactively advanced transparency when corruption cases occurred. The bipartisan agreement of 2003 was a political movement to contain increasing political disaffection of the Chilean society and to give trust to international agents, but it should have been more radical. Transparency and access to information were not implemented and remained distant to Chilean citizens.” – Civil society advocate on transparency (CS-01).

The symbolic progression of the transparency agenda shows the relevance of crisis to real progress and evolving institutions. Exogenous or endogenous factors are of high significance for institutional change, and usually do not evolve for intrinsic reasons. Instead, they need to adapt to new conditions in the environment to survive. In the case of this trajectory, we see that external and internal pressure due to corruption cases played a seminal role in the progression of transparency and access to information in the country. Without that radical force, Chile would have probably continued to promote a limited transparency framework. There was also a tension between dominant cultural-cognitive rationales in this domain: while some actors saw that a comprehensive transparency framework was needed to deepen democracy, empower civil society and make the government more accountable; others advocated for a limited framework to protect civil servants from a dramatic shift in public exposure. This example exposes the need for a balance between regulatory and normative institutions, aligned with the right incentives and resources, to produce institutional change.

<table>
<thead>
<tr>
<th>BOX 5.4: Transparency-related CSOs during the structural persistence period</th>
</tr>
</thead>
<tbody>
<tr>
<td>The recurrence of corruption cases triggered the emergence of transparency-related CSOs in Chile. Given the lack of comprehensive legal frameworks and initial apathy of political forces to address corruption, several transparency advocates organised themselves to promote and monitor the development of transparency-related policies. Three transparency-related CSOs can be highlighted in this decade: “Chile Transparente” (2002), “Fundación Pro-acceso” (2003) and “Derechos Digitales” (2005). While “Fundación Pro-acceso” and “Chile Transparente” are CSOs pushing directly for both better transparency practices and regulation, “Derechos Digitales” advocates for online</td>
</tr>
</tbody>
</table>
and offline data protection rights. These three CSOs are led by public-oriented lawyers, several of whom have postgraduate degrees from renowned international universities and are well-connected to local and international networks and funding programmes. These organisations became the main interlocutors between the state, international organisations and Chilean civil society to develop and monitor the transparency agenda once it had been promulgated. While ICTs were used in the implementation of the transparency agenda (e.g. active transparency websites and passive transparency requests), these CSOs did not actively promote the use of ICTs for transparency-related purposes, but acknowledged their potential to deepen and operationalise this agenda (CS-01; CS-03; CS-06).

5.4.3.2. Reactive sequence (2006 to 2011)

As with the digital government trajectory, President Bachelet’s presidency observes an institutional emphasis on transparency and access to information in Chile, given both domestic corruption cases and international condemnation of restricting access to public information pushed Chile to improve its institutions to meet international standards. This period sees several institutional changes that pushed the transparency and access to information trajectory to shift and take a slightly different direction but, at the same time, continued to show some key institutional features from previous periods such as a dominant reactive rationale for transparency.

As soon as Bachelet took office, Chile was involved in a controversy with an international organisation: after years of dispute, the Inter-American Court of Human Rights obligated the Chilean state to disclose public information of its trading with private firms after it had been rejecting a series of public information requests raised by Marcel Claude-Reyes (CIDDHH 2006). This judgement forced the implementation of a FOI regulation in the short term, and turned the discussion about transparency and access to information into a human rights problem: there was the risk of being perceived internationally as a country which was again infringing broadly accepted rights (RA-09; CS-06). Interviewees perceive this condemnation, together with pressure to become a full member of the OECD, as having been incentives that led to a change in the transparency agenda trajectory – similar to periods outlined previously:
“Chile needed political institutions to improve their transparency and accountability, in order to deepen its political connections with the world” – Former developed Transparency Official (PSO-03)

These incentives were reinforced by another corruption case related to illegal bonuses for public servants (CDH 2015). Hence, the government adopted a more proactive approach by accelerating discussions to pass a FOI act in parliament, while rapidly implementing an active transparency programme for public agencies (Bachelet 2006):

Public agencies were required to publish information online about public servants’ wages, contracts, and administrative structure, among others on a monthly basis. The radical nature of this Directive caused strong initial rejection among civil servants due to their severe exposure to public scrutiny. Interviewees state that despite the aggressive tactic adopted by the Government and the initial rejection of the programme, it was an effective approach to quickly settle the concept of transparency within public offices (PSO-03; PSO-09):

“The sanctions and the Council are the strength of the law” – CSO member in transparency (CS-01)

The international condemnation of earlier rejection of access to public information as well as the new wave of corruption acted as driving incentives for the political elite to accelerate the promulgation of the transparency law in 2008 (CNC 2008b). Law 20.285 defines a comprehensive legal framework which regulates the rights, procedures and exceptions with regard to actively publishing or requesting access to public information in different branches of the state, excluding information that may represent a risk to the interests of the Chilean nation. A key advance of the law is the Council for Transparency, an independent public body which oversees the compliance of the law across public offices. Law 20.285 also includes monetary sanctions for public officials in case agencies do not answer information requests on time or with a sufficient level of quality. Law 20.285 becomes then a disciplinary method to control public officials’ behaviour:

“The sanctions and the Council are the strength of the law” – CSO member in transparency (CS-01)
In institutional terms, the transparency framework contains a vast number of institutional components: a material regulatory framework backed by clear objectives and procedures to request access to public data, and incentives to fulfil the law – although several interviewees highlighted that its implementation was not adequately adapted to the existing sectoral cultures, capacities and resources (PSO-03; PSO-08). Since monetary sanctions were the disciplinary means to control its compliance, both central and sectoral governments emphasised them as the main driver for transparency implementation. Interviewees recognise that there was a shared perception that the Government’s focus was mainly on sanctions rather than more democratic principles of transparency and accountability (CS-01; CS-06; PSP-06). Additionally, its entry into force produced cultural tensions between political authorities and civil servants. The law did not include key economic resources such as a budget to train, implement and operate the additional administrative tasks produced by the legal framework; and only provided a short timeframe for public agencies to implement the law. Indeed, the operationalisation of the law was entirely centralised, and the Government disregarded local politics and organisational realities (CS-06; PSP-12).

While this approach was a quick and effective way for the law to be brought into force, it also attached a sense of bureaucratic obligation to comply with the new regulation. There was an emphasis on sanctions that public officials could receive in case requests for public information were not answered on time or the provided information was not satisfactory, rather than on the relevance of transparency for Chilean democracy (CS-06; PSP-02). In general, this approach fostered a culture of *obliged transparency* during the implementation of the law, reflected in the perception that transparency entailed extra tasks for civil servants with no added value to their routines. Under this rationale, civil servants replied to information requests exerting minimum effort: a reduction in costs and time was prevalent for the construction of both publishing and answering information tasks, often limiting the quality of data (PSO-11):

“*There was a problem with the practical implementation of the law, because the Government did not provide sufficient economic and time resources for this process, so it generated significant resistance. In the absence of resources, public officials were overloaded with work as people requested too much specific information. This issue was*
reflected in delays in answers and a sense of obliged transparency... That is why I think we are observing changes in practices rather than in institutional culture yet.” – Public sector practitioner in transparency (PSP-06)

BOX 5.5: Transparency-related CSOs during the reactive sequence period

Along with changes and institutional reactions observed after the enactment of the transparency framework, new transparency-related organisations emerged in Chilean society. This is the case of “Fundación Ciudadano Inteligente” (FCI), which was founded by a group of technology-oriented lawyers returning from overseas postgraduate studies, in order to help bridge the gap between transparency policies and Chilean society. The rationales underpinning this CSO were that civil society had to monitor the compliance of the transparency law, which required citizen-centric and participatory ways to engage Chilean citizens with the legal framework. FCI was supported by external donors such as Omydiar Network, Google, Hivos, Avina Foundation, mySociety and the World Bank among others, while they have deliberately rejected funds from local or public sources to maintain their credibility and independence from political influences (CS-02; CS-04). Interviewees recognise FCI’s leaders were well-connected both in Chile and abroad, which helped them set up the organisation. FCI rapidly received political credibility due to its innovative approach (CS-01; PSO-02; PSP-01; IN-03).

A general phenomenon related to the development of the aforementioned CSOs is their geographical centralisation in Santiago, which is also the location of the Central Government. All their activities, networks and events have been organised for the capital’s audience, replicating an already studied case of centralisation of public policy decision-making in Chile (RA-01; RA-06; RA-09). While in Santiago the CSO community is vivid and vibrant, their presence in the regions is limited to sporadic and isolated activities in order to promote the social values they espouse (RA-09; CS-03).

By the end of Bachelet’s term, a shift in the transparency agenda driven by the implementation of the law 20.285 can be observed. The law and other advances materialised the symbolic incorporation of transparency and access to information observed in previous periods into a strong regulatory framework and clear procedures
to request information, with sanctions and independent bodies ensuring compliance with the law. Although limited in resources, the transparency framework finally allowed citizens to exert their right to access to public information, albeit generating a cultural-cognitive rationale of forced transparency among civil servants. Despite the law’s initial success, interviewees observe that these changes were insufficient to avoid corruption, and that the law did not facilitate the reuse of public information it provided. Thus, the transparency framework was relevant, timely and backed by regulatory and normative institutions, but it did not fully cover other sensitive areas such as political campaigns, political parties, and the reuse of public information, issues which were set to resurface in the next decade.

Overall, the reactive sequence period observes several changes in the transparency trajectory reflected in the materialisation of regulations and cross-sectoral practices to frame access to public information. Incentives and resources to back regulatory and normative advances were only made available because of aligned cultural-cognitive rationales among the Chilean political elite, who feared the impact of those corruption cases on the governance system and the economy. Interviewees suggest that without these elements, the transparency framework would not have been implemented to the same extent. Additionally, interviewees agree that these advances changed practices to support transparency and access to information rather than existing dominant cultures. Indeed, corruption continued to act as a trigger of institutional change, since most of the advances observed in this and previous periods were caused by severe corruption cases. Arguably, without corruption and international condemnation, Chile would not have observed the changes in the transparency and access to information framework that occurred in this period.

**BOX 5.6: The role of the Council for Transparency (CFT)**

The transparency legal framework enacted in 2008 included the creation of an independent body to oversee its fulfilment by public agencies. The CFT has the responsibility of promoting, monitoring and sanctioning public institutions regarding conflicts with active and passive transparency, but it is also empowered to generate material regulatory and normative institutions. The central aim of the Council is to
create a transparency environment across sectoral agencies and to protect Chilean civil society in cases where the right to access public information is infringed. Interviewees agree that the Council has played a relevant role by targeting key aspects not covered by the implementation of the law 20.285; i.e. it is concerned to promote better practices and adopt a culture of transparency. Being an independent body, it can create binding regulation, but it has also adopted a more nuanced approach by promoting good practices and cultural change. It has also disseminated existing transparency regulations among Chilean civil society through campaigns and educational opportunities.

5.4.4. The data governance trajectory

5.4.4.1. Structural persistence (2000 to 2005)

The structural persistence period shows a continuation of policies related to the data governance trajectory suggested by President Frei and his modernisation of the state commission. With President Lagos taking office in March 2000, the implementation of law 19.628 for personal data protection took place. In order to deepen some of the principles comprised in the law, the National Registration Service implemented a decree to maintain a register for all databases with sensitive personal details held by public agencies (CNC 2000). However, this decree lacked normative principles and incentives to control the effective registration of these databases, thus it was never implemented in practice:

“The National Registration of Databases is a “dead letter”. The regulation lacked formal means to monitor and enforce its fulfilment, and did not bring any improvement to existing data governance practices. In the end, the level of compliance was insignificant. This is one example to understand how we usually make public policy: we promote good initiatives, but we fail to implement them and to engage others with it.” – Former Transparency Official (PSP-06)

Material regulation and practices emerged with the incorporation of electronic communication and production of public information\(^6\) through PRYME, the e-Government programme of President Lagos. An extensive use of information

\(^6\) Advances in digital government policies led to the development of a normative body to oversee the correct implementation of electronic communications between public agencies and citizens.
technologies to produce, trade and disseminate public data was observed, largely coming from digital government policies. This momentum pushed SEGPRES and its e-Government unit to pass the law 19.799 for electronic documents and signatures, and defined a series of decrees in order to implement the law and regulate the use of electronic documents (CNC 2002). Although this law provided basic principles for data governance, it largely focused on the efficiency of electronic communication. A series of decrees after the enactment of law 19.799 would incorporate some data principles. While the decree 077 (CNC 2004a) looks at defining common vocabulary and procedures to ensure the quality and effectiveness of electronic communication between public agencies and citizens, decree 081 (CNC 2004b) frames the correct use of electronic communication standards for those purposes (introducing concepts such as XML or metadata vocabularies). A third document, decree 083 (CNC 2005), defines security and confidentiality procedures to ensure the correct use of electronic documents. However, none of them provide a national and actionable plan that materialise a regulatory framework for data management; instead, they offer a soft normative approach that encourages adoption of practices that have occasionally been fulfilled. This institutional framework did not work in practice, as sectoral agencies did not fully implement it (PSP-03; RA-11). Interviewees observe that public agencies adopted this framework according to their own capacities and, in practice, they did not interoperate as expected during Lagos’ period as they still relied on one-to-one collaboration agreements to exchange public data (PSP-12). The consequences of this framework were that interoperability policies did not fully materialise during President Lagos’ period, although it served as a dominant rationale for future interoperability initiatives:

“It took time and effort to implement the interoperability initiatives as they challenge the paper-based rationale of the public sector, requiring the formalisation of data management at a higher level. Therefore this agenda was not fully implemented at its early stage. Similarly, the Central Government did not have sufficient monitoring empowerment and capacities to ensure agencies’ compliance with this initiative.” – Public sector practitioner in data management (PSP-12)
5.4.4.2. Reactive sequence (2006 to 2011)

Similar to other trajectories, the change of government in 2006 represented a change in the arrangement of institutional features observed in data governance. During Bachelet’s term (2006-2009), interoperability data management policies led by SEGPRES were moved to the Ministry of Economy, along with other e-Government initiatives, reducing the political backing awarded to previous initiatives. Given their relevance for broader government agendas and the incentives developed at sectoral level (such as the transparency framework and PISEE) some initiatives can be highlighted during this period.

In terms of advances in public policy, the Government enacted the decree 271 in 2008, which defined public metadata administration system (AEM) (CNC 2008a), which is a centralised database recording structures of documents that may be exchanged by public agencies, thus allowing to develop unified data vocabulary for the Chilean state. While this institutional structure may have represented a significant milestone for data governance practices, it was not backed by material practices such as dissemination and monitoring of these practices by the leading e-Government unit, and there was a lack of commitment from public agencies. Later in this period, an integrated interoperability framework – named PISEE – for public service delivery was implemented. While AEM aims to incorporate all potential public metadata emerging from the Government, PISEE collects and uses metadata for data exchange between participant agencies to make public service delivery more efficient. While AEM has been systematically disregarded, PISEE has been adopted by a few public services as it provides specific metadata which are required for public service delivery (PSP-03; PSE-03; PSO-04). Instead, when public agencies require data from other agencies for policy making purposes, they trade datasets through more efficient and specific data exchange agreements between two or more public agencies (PSP-12; PSO-06; PSO-07).

Between decree 271 and the implementation of PISEE, data governance practices were affected by the implementation of the FOI act – law 20.285 – by SEGPRES (CNC 2008b). The law aimed to quickly introduce the concept of transparency and access to public information within public agencies. However, it did not consider any further normative policy to frame effective data management by the public – something that was part of
the aspirations of civil servants promoting transparency (PSP-06; RA-09; PSP-02). The law frames procedures for the publication and request of public data, but it lacks material practices for efficient data governance. During the implementation of law 20.285 (CNC 2009), SEGPRES introduced soft informal practices to conduct database inventories, looking at facilitating their identification to answer public data requests. Since this process relied on sectoral coordination, cultural-cognitive aspects played a significant role, and its application differed from office to office. While some public agencies conducted a rigorous cadastre, others perceived this process as a delay in implementing the law and disregarded data governance practices (PSP-06; CS-01).

A limited role of the National Archive to lead regulatory and normative data management advances is also observed. Interviewees recognise that this unit was not involved in the design and implementation of any of the legal advances reported in this section. Hence, technical knowledge on data management was disregarded, being perceived as soft or complementary rationales to technological-oriented policies (Cabezas 2014).

Overall, the development of data governance institutions has systematically been delayed, limited to progressions in other agendas, such as the transparency legal framework or the implementation of digital communications (PSO-03; PSP-03): advances have come from exogenous incentives rather than intrinsic cultural-cognitive value of data governance practices or data-intensive normative policies (CS-03; PSP-12). Current regulatory and normative institutions are sufficient to operate public policies, but limit the implementation of more radical data-based projects, and no further measures will be taken unless a crisis occurs which could risk other public policies:

“We revised which data was published, the formats and structure, and we realised that there were no data governance policies in our country. I mean, on the one hand the interoperability agenda has been pushed for many years, as well as the AEM. To be honest, working here, that project is not useful. It has not spread yet... What do we need to do it [implement data governance practices]? A crisis. Without a crisis, radical changes won’t occur. This shows that it doesn’t work in an optimal way, but it provides a basic operational framework. In the meantime, we will only see limited changes.” – Public Sector Official in Transparency (PSO-03)
Although this period observes advances in data governance in comparison to previous sections, interviewees admit that the absence of regulatory and normative institutions of cross-sectoral data governance fostered a complex diversity of data management practices that put the development of data-intensive public policy at risk. There was a wide variance of data standards and practices being adopted by public agencies. This approach created higher incentives to empower sectoral cultural-cognitive rationales from data creators and managers: civil servants accessing and manipulating those datasets could control their production and use for public policy.

5.4.5. Outcome of the process of punctuated equilibrium

The process of punctuated equilibrium observes how institutions answer and adapt themselves to critical junctures. As stated beforehand, institutions face stability and change as inherent enablers of institutional trajectories. In the case of OGD, we see how the three institutional trajectories – digital government, transparency and data governance – replicate and adapt themselves, creating institutional paths which increase probabilities for future initiatives to occur along the same courses.

The provided institutional analysis observes that trajectories originating from the critical juncture period were both reinforced during the punctuated equilibrium process, as well as modified to a higher or lower extent during the reactive sequence process. While digital government and transparency trajectories experienced institutional change, the data governance path remained relatively stable across the period, and advances occurred thanks to minor influences by the other two paths.

The digital government trajectory follows a weakly institutionalised path where emphasis is focused on soft regulatory and normative institutions, thus fostering a strong presence of various cultural-cognitive rationales driving the trajectory. Indeed, governments continued to focus on the symbolism of ICTs for public service delivery and the projection of modernity and integrity as key drivers. The example of ChileCompra emphasises how ICTs, while having a transformative role in normative institutions, were continuously advocated due to their national and international rewards. The political discourse emphasised the relevance of being at the global forefront of e-Government, and thus incentives were focused on obtaining quick political benefits rather than
providing the foundations for long-term policies and impact. This unstable institutional environment was more evident in the reactive sequence period with the change of the Presidency in 2006. This political event weakened the trajectory as the incoming administration removed the political resources to PRYME that sustained its limited regulatory and normative advances observed during the structural persistence period. This triggered a lack of continuity and diversity of digital agendas and strategies in each presidential term; as well as a lack of political alignment and strong leadership that would have been able to materialise ICT-based aspirations into regulatory and normative institutions. Positive examples in e-Government continued to be isolated projects and did not involve cross-sectoral coordination; thus their implementation relied on sectoral capabilities as well as local resources and political leadership.

The transparency trajectory shows a major institutional change caused by the internal pressures due to corruption cases and political instability, and the international pressure to improve Chilean institutions in transparency and access to information observed during the reactive sequence period. Unlike in the structural persistence period where regulatory and normative institutions remained symbolic, in the reactive sequence period these events led to major political support for the enactment of a comprehensive regulatory and normative framework. However, the implementation of the law was not backed up with sufficient resources and incentives to adapt cultural-cognitive rationales related to transparency and openness in the Chilean public sector: the culture in the public sector incorporated the concept of transparency and access to information as part of a semantic transition from opacity to openness, but also kept the concept of obliged transparency. In Chile, the concept of transparency was introduced to the public sector, but it lacked normative and cultural-cognitive approaches to understand openness and transparency as a democratic right rather than a bureaucratic task. Thus, the transparency framework worked well, however there was no clear openness rationale present in the country during this period.

Finally, the data governance trajectory was relegated and only observed institutional advances thanks to the other two trajectories; i.e. initiatives in interoperability and transparency-related data management. The lack of political resources for the digital government trajectory in the structural persistence period caused that electronic data
governance practices that had previously been enacted during the reactive sequence period were set aside. The digital government trajectory only benefitted from cosmetic advances related to the production, administration, storage and use of public data files. Under weak regulatory, normative and cultural-cognitive institutional frameworks, data-related initiatives carried an “original sin”; an under-regulated institutional environment that acted as a barrier rather than a promoter of data-intensive policies. A summary of these institutional features can be seen in Table 5.6 below.

Table 5.6: Institutional features during the punctuated equilibrium period: structural persistence (2000 to 2005) and reactive sequence (2006 to 2011)

<table>
<thead>
<tr>
<th>Institutional components</th>
<th>Digital Government</th>
<th>Transparency</th>
<th>Data Governance</th>
<th>Level of Institutionalisation (Symbolic vs Material)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Structural Persistence:</strong></td>
<td>Limited material institutions in digital government. PRYME was only a programme (as opposed to an agency or ministry) reflecting the continuation of symbolic institutional frameworks for e-Government. Symbolic legal advances in the form of soft, non-binding decrees – all of which were insufficient to fully frame digital government.</td>
<td>Reactive and symbolic regulatory framework remained from critical juncture period. Recurrent corruption cases triggered political will to frame transparency and access to information to a limited and symbolic extent.</td>
<td>Digital data governance institutions remained unchanged during this period. Data-related advances only limited to peripheral components such as electronic signature and communications.</td>
<td>Regulatory institutions remained shallowly material as during the critical juncture. The remaining symbolism was seen in the progression but not in the institutionalisation of the three trajectories.</td>
</tr>
<tr>
<td><strong>Reactive Sequence:</strong></td>
<td>Change of presidents weakened digital government institutions. No legal advances during the period to institutionalise these initiatives. Leading programme moved from SEGPRES to Ministry of Economy (Bachelet) and back to SEGPRES (Piñera).</td>
<td>Advances continued to be led by corruption. Major corruption case and international pressure to sanction the Chilean state triggered political will to enact a comprehensive legal framework with symbolic (constitutional right to access public information) and material (dedicated law and independent bodies) institutions. Law did not require data disclosure in machine-readable formats.</td>
<td>There were no significant changes between structural persistence period and the reactive sequence. The transparency framework did not incorporate any regulatory institutions to improve data governance for transparency purposes.</td>
<td>Changes of government altered institutional trajectories by introducing symbolic (digital government and data governance) or material (transparency) regulatory institutions. However, regulation continued to be insufficient to fully institutionalise these three trajectories.</td>
</tr>
</tbody>
</table>
### Path Dependence analysis of OGD institutional trajectories

<table>
<thead>
<tr>
<th>Structure</th>
<th>Persistence</th>
<th>Sequence</th>
<th>Structural Persistence:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normative Institutions</strong></td>
<td>Structural Persistence:</td>
<td>Reactive Sequence:</td>
<td>Emphasis on implementing practices defined in critical juncture period thanks to presidential leadership, but with a continuing limited operational framework. Shared objectives and policies to implement these initiatives across public agencies.</td>
</tr>
<tr>
<td></td>
<td>Despite recurrent corruption cases,</td>
<td>Comprehensive and cross-sectoral operational framework to access public information thanks to law 20.285. Limited shared objectives for transparency as the law’s implementation relied on sectoral capacities and resources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>period observed limited material practices to access public data. The lack of clear transparency procedures to access information facilitated both opacity and the occurrence of severe corruption cases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cultural-cognitive Institutions</strong></td>
<td>Similar to the critical juncture interval, only symbolic valuation of data management in outdated practices. The Government still did not address data governance practices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Materialisation of past interoperability initiatives introduced peripheral rather than radical data governance practices. Transparency framework incorporated minor data management practices to organise transparency data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change of presidency introduced symbolism in both digital government and data governance practices. Transparency trajectory observed an increase in material practices and strategies that helped operationalise the regulatory framework.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cultural-cognitive Institutions

| Structural Persistence:         | IKTs continued to be seen as enablers of economic development and modernisation to address corruption. Increased awareness of the politics of e-Government provided stronger political support, albeit still being insufficient for establishing a comprehensive framework. |
|----------------------------------| Changes of government altered |
| Reactive Sequence:               | Continuing reluctance to institutionalise transparency and access to information. There was a generalised perception of corruption being limited to isolated cases, a rationale which constrained stronger institutions. |
| Reactive Sequence:               | International pressure and political will embedded transparency as public-sector rationale. However, limited |
| Reactive Sequence:               | Data governance was disregarded in the mainstream public policy discourse. Data management was underestimated in areas where better data governance practices were required. |
| Reactive Sequence:               | Interoperability and transparency law created limited awareness of data governance, which |
| Reactive Sequence:               | Trajectories continued to be seen as peripheral rather than core public sector policies, and were not present in mainstream political rationales. |
| Reactive Sequence:               | Awareness among politicians of the negative political and economic impact of corruption helped materialise transparency trajectory. Other |

### Structural Persistence:

- Limited advances only observed thanks to direct presidential support. Most of the practices remained symbolic as they did not operationalise the three institutions.
- Change of presidency introduced symbolism in both digital government and data governance practices. Transparency trajectory observed an increase in material practices and strategies that helped operationalise the regulatory framework.
### Political Ideologies of ICTs

The politics of digital government initiatives were underestimated. Material presence of ICTs as enablers of modernity and economic growth, while ICTs for democracy were only implemented at symbolic level. Political actors sought political rewards from ICT interventions.

#### Implementation of the Law 20.285

- Implementation of the law 20.285 created a sense of extra workload and “obliged transparency” among public sector practitioners. Independent bodies and transparency-oriented CSOs deepened democratic views on transparency. ICTs were seen as low-cost means to implement the agenda.

- The implementation of the law 20.285 created a sense of extra workload and “obliged transparency” among public sector practitioners. Independent bodies and transparency-oriented CSOs deepened democratic views on transparency. ICTs were seen as low-cost means to implement the agenda.

#### Resources

**Structural Persistence:**

- Insufficient political resources to promote a comprehensive transparency agenda. Absence of economic and technological resources.

**Reactive Sequence:**

- Strong political authority to implement the transparency framework, but with limited economic and technological resources to carry out this agenda. Lack of economic resources constrained rationales on transparency. Technological resources observed as low-cost enablers of the agenda.

Change of presidency altered political and economic support: while there had been a decrease in political and economic resources in 2006, these were reinstated to a limited extent in 2010. More political than economic resources to progress this trajectory.

**Structural Persistence:**

- Insufficient political resources to promote a comprehensive transparency agenda. Absence of economic and technological resources.

**Reactive Sequence:**

- Strong political authority to implement the transparency framework, but with limited economic and technological resources to carry out this agenda. Lack of economic resources constrained rationales on transparency. Technological resources observed as low-cost enablers of the agenda.

Change of presidency altered political and economic support: while there had been a decrease in political and economic resources in 2006, these were reinstated to a limited extent in 2010. More political than economic resources to progress this trajectory.

**Structural Persistence:**

- Insufficient political resources to promote a comprehensive transparency agenda. Absence of economic and technological resources.

**Reactive Sequence:**

- Strong political authority to implement the transparency framework, but with limited economic and technological resources to carry out this agenda. Lack of economic resources constrained rationales on transparency. Technological resources observed as low-cost enablers of the agenda.

#### Incentives

- The e-Government agenda was seen as an enabler of an image of modernisation and integrity. International pressure to bring institutions up to global standards

- Dominant incentives linked to control of political externalities of corruption cases and to maintaining image of integrity towards outside world.

- Lack of general incentives to drive a comprehensive data governance policy.

- Dominance of political incentives such as international political prestige and demonstrating credibility and efficiency to other countries, rather than
Path Dependence analysis of OGD institutional trajectories

<table>
<thead>
<tr>
<th>Source: Own elaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflected in an emphasis on international rankings and the country’s image projected to the developed world.</td>
</tr>
<tr>
<td>Reactive Sequence: Limited advances driven by emphasis on political benefits and low cost of transparency and interoperability tasks. There was a general lack of incentives to lead a comprehensive data governance policy.</td>
</tr>
</tbody>
</table>

5.5. Institutional outcome: institutional features and path dependency from the three trajectories

Previous sections have sought to identify institutional features and path dependency developed across three trajectories – digital government, transparency and data governance. To understand this dynamic, both institutional features and cross-trajectory path dependence are presented in the following subsections. These cross-trajectory paths are patterns observed – to a higher or lower extent – across the three institutional trajectories and help deconstruct their key characteristics to understand their level of institutionalisation after 15 years of relevant historical events.

5.5.1. Institutional features of each trajectory

According to the model in Figure 3.3, institutions present different forms and features. They can be formed as regulations, practices, and rationales in concordance with new forms of institutional theory: formal and informal institutions. Institutions can also vary from symbolic to material, which may determine their level of institutionalisation. A
Institutional outcome: institutional features and path dependency from the three trajectories

summary of key institutional features from the three institutional trajectories that form part of this research is presented in Table 5.7. While Table 5.6 compares the institutional progression between the structural persistence and the reactive sequence period, Table 5.7 presents an overview of the key institutional features during the whole period of study (1990-2011) which serves as the foundation for implementation of OGD.

Table 5.7: Institutional features before the implementation of OGD from 1990 to 2011

<table>
<thead>
<tr>
<th>Institutional components</th>
<th>Digital Government</th>
<th>Transparency</th>
<th>Data Governance</th>
<th>Level of Institutionalisation (Symbolic vs Material)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Institutions</td>
<td>Limited materialisation of regulatory bodies for digital government. Project-based regulatory advances rather than a comprehensive institutional approach, affected by different rationales awarded to the trajectory by respective presidents.</td>
<td>Comprehensive or material regulatory advances driven by increasing number of corruption cases and concerns of their potentially damaging impact on international reputation. Transparency law 20.285 provided coverage for access to public information in the country.</td>
<td>Out-dated data governance regulatory frameworks for paper-based bureaucracy. New regulatory bodies only emerged as part of broader cross-sectoral projects such as interoperability and transparency.</td>
<td>Limited materialisation of regulatory bodies to fully frame each trajectory. Emphasis on transparency regulation rather than digital government and data governance.</td>
</tr>
<tr>
<td>Normative Institutions</td>
<td>Emphasis on short-term practices and initiatives rather than long-term strategies. Practices and objectives were sensitive to changes in dominant political ideologies. Lack of material cross-sectoral normative institutions made this trajectory mostly rely on sectoral resources and skills.</td>
<td>Practices transit from symbolic to material according to progression of regulatory institutions, with shared objectives and practices effectively providing access to data. ICTs used to request rather than disclose information.</td>
<td>Symbolic introduction of data governance practices for peripheral initiatives such as transparency and interoperability. Predominance of analogue sectoral practices and standards.</td>
<td>Normative institutions observed limited materialisation, but were sufficient for short-term implementation of core or peripheral initiatives related to the three trajectories.</td>
</tr>
<tr>
<td>Cultural-cognitive Institutions</td>
<td>General underestimation of the politics of ICT interventions reflected in the lack appropriate institutions in digital government. General view on digital technologies as commodities or enablers of an image of dual rationale: political elite saw transparency initiatives as key to providing stability and projecting an external image of modernity and integrity, while sectoral agencies had a shared sense of lack of political awareness of key data governance policies, only present thanks to thanks to peripheral initiatives. Dominance of analogue rationales for public data management.</td>
<td></td>
<td>Trajectories often seen by political elite as commodities, or enables of other political objectives. There was a general lack of understanding of the complexities associated with each of the trajectories that impeded regular...</td>
<td></td>
</tr>
</tbody>
</table>
### Cross-trajectory path dependency

#### 5.5.2.1 Institutional path of shallow institutionalisation and politicisation of ICT-based initiatives

Evidence from these three trajectories shows an emphasis on politicised and weakly institutionalised institutions, in particular when they are linked to the implementation of ICTs. This limited framework is characterised by a predominance of symbolic rather than material institutions; i.e. there is a preference for declaring rationales and values as data governance was not part of core incentives and political rationales. Limited resources to operationalise peripheral initiatives that incorporated data governance elements, rather than to implement a comprehensive agenda. Overall, limited political and economic resources to mobilise material trajectories, albeit having been sufficient to operationalise short-term initiatives and strategies. Emphasis on political rather than economic resources according to observed political rewards.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited economic and political resources often linked to dominant incentives and cultural-cognitive institutions. Political resources were often awarded to obtain broader political objectives, such as efficiency and modernity. Limited economic resources that only were sufficient to develop short-term initiatives.</td>
<td>Digital government was implemented to modernise and increase efficiency in the public sector, as well as to project an image of modernity and efficiency to the outside world. Rankings and perception of Chile by international organisations and other countries played a relevant role in adoption of a short-term approach to digital government.</td>
</tr>
<tr>
<td>Sufficient political resources to enact and promote the transparency framework, but with limited economic resources that constrained the appropriateness of the agenda at sectoral level. Introduction of technological resources to implement the trajectory.</td>
<td>Dominant political incentive to ensure social, economic and political stability through transparency at top political level, while sectoral agencies complied but did not embed a culture of transparency. External bodies generated democracy-related incentives for transparency in the public sector.</td>
</tr>
<tr>
<td>Low level of resources as data governance was not part of core incentives and political rationales. Limited resources to operationalise peripheral initiatives that incorporated data governance elements, rather than to implement a comprehensive agenda.</td>
<td>Lack of awareness and incentives to implement a data governance framework of neither comprehensive nor short-term nature. Other peripheral initiatives introduced limited incentives to adopt data governance practices in order to facilitate its implementation.</td>
</tr>
</tbody>
</table>

Overall political incentives were available to promote a political image of modernity and efficiency. Incentives were mostly focused on short-term political benefits rather than long-term social outcomes.

Source: Own elaboration
for the trajectories, rather than strengthening the material regulations, practices and strategies that implement them. There is also a general lack of sufficient resources to implement the trajectories, while incentives are mostly present to gain maximum political reward from these initiatives, often disregarding other democratic outcomes. Institutional trajectories also seem to be vulnerable to dominant politics and are strongly shaped by the rationales respective presidents awarded to them. Under this institutional scenario policies become sensitive to dominant cultural-cognitive rationales. This institutional framework favours incentives and resources that are focused on short-term initiatives, rather than long-term policies, and makes them highly politicised and instrumental to mainstream political rationales.

The digital government trajectory shows an emphasis on symbolic regulatory and normative institutions, reflected in a preponderance of short-term action plans, limited economic resources and incentives focused on obtaining political rewards. Albeit insufficient to achieve a material long-term strategy for digital government, this institutional framework seemed to work in practice to implement and operate successful initiatives in e-Government which helped boost the country’s political dividends. Governments have enjoyed a leading position in modernisation of the state and e-Government in the region and among countries of similar income. At the same time, political leaders have systematically avoided institutionalising e-Government or other digital practices in material, structural regulatory and normative institutions beyond the recurrent design and public launch of digital agendas and strategies. This limited institutionalisation has also made digital government vulnerable to dominant cultural-cognitive rationales: different meanings were awarded across administrations, with the Unit being reallocated nearly each time a new president took office, and leaving it with varying degrees of political support and resources to implement the agenda. Much of the disruption seen in the digital government trajectory came from variable direct presidential support and was subservient to other programmatic priorities such as the reduction of corruption, entry into global institutions, or to project an image of modernity and efficiency. As evidence suggests, this institutional trajectory was significantly shaped by the meanings different presidents awarded to digital government over the years – from modernisation tools to enablers of economic growth.
Presidents, as agents challenging existing institutional structures, had a major impact on conditioning the progression of digital government policies according to the meanings they awarded to this agenda. The influential role of presidents in defining the agenda of digital government helps understand why digital government followed an irregular trajectory during the period of study. In the absence of strong institutions, digital government initiatives can be driven by political interests. For example, while ChileCompra improved transparency in public procurement, it was also useful for the Government to demonstrate the modernity and transparency of the Chilean state to internal and external audiences. Similar rationales drove ChileAtiende at MDGU: there was a need to maximise political legitimacy from a relatively simple project, in order to demonstrate the value of the Unit and to renew its budget for the following years. ICTs have also been commoditised by emphasising their technicality rather than their social nature, often being (incorrectly) perceived as an easy way to solve complex problems and as a source of political reward.

The transparency trajectory also shows evidence of politicisation and weak institutionalisation. Unlike digital government, this trajectory observes a comprehensive, material legal framework for passive and active transparency, which was mainly enacted due to severe political crisis, international pressure to control corruption cases, and the need to project an image of integrity and modernity externally. Indeed, the FOI act showed a positive institutionalisation process due to the provision of material legal bodies, shared and regulated practices, incentives to push the agenda forward, albeit insufficient resources to spread a transparency culture across sectoral agencies. However, the rest of the trajectory showed relatively weak regulatory and normative institutions, added to the limited resources to implement those paths. Weak advances during the critical juncture period did not provide resources nor a normative framework to materialise symbolic values (which were included in regulation) with concrete practices to facilitate access to public information, such as the constitutional clause for transparency.

Finally, the data governance trajectory seems to have been missing from the political radar, and thus it also becomes weakly institutionalised: in the absence of political incentives to promote data-related institutions, structural institutions were completely
disregarded. As a result, Chile has an outdated institutional framework for data management. Peripheral advances occurred only as part of other initiatives linked to political priorities and external incentives. Interviewees claim that, unless there is political interest and a vision to understand the role of high-standard data management, these changes will not occur in the foreseeable future.

5.5.2.2. Institutional path of image projection through ICTs

The three trajectories show an emphasis by Presidents on presenting an image of modernity, political stability and integrity to validate its political, economic and social systems to two main audiences: an internal audience – Chilean civil society and private sector; and an external audience – international organisations and foreign investors. This rationale led political elites to favour the implementation of quick-win initiatives to obtain political dividends over the building of strong and long-term institutions (such as aligned regulatory, normative and cultural-cognitive institutions, as well as appropriate incentives and resources).

With regard to the internal audience, there was a need to demonstrate to Chilean society that the country’s political system was stable, modern and trustworthy, while corruption cases were isolated events. Considering recent and past political instability, the country has made significant efforts to consolidate its stability. On the other hand, Chile’s aspirations to integrate into the developed world led the political elite to demonstrate an image of modernity and integrity to increase the country’s opportunities to become a member of key international organisations such as the OECD, or to convince foreign investors that Chile represents the best economic and business opportunity in the region. Significant institutional advances were promoted by these incentives and their underpinning rationales.

The need to demonstrate modernity, stability and integrity were present – to a higher or lesser extent – in the three institutional trajectories. In the case of the digital government trajectory, the dominant cultural-cognitive rationale of demonstrating modernity and integrity mobilised the agenda over years from symbolic to limited material institutions. Chile adopted several digital government practices during the period of study, which were driven by an impetus to demonstrate internally and
externally that Chile differed from the rest of region in terms of enhanced democratic governance and anti-corruption actions. The aim was to show that the country offered stable, modern and efficient institutions, providing suitable and safe environments to foreign investors to do business in. The case of ChileCompra is key evidence for this rationale: the digital government agenda aimed to position Chile at the global forefront of public contracting and e-Government, emphasising its low levels of bureaucracy, and its political control of corruption. Discourses among political leaders highlighted the importance of becoming a regional leader in e-Government, with a focus on rankings and international awards to distance Chile from other countries in the region. The emphasis on political rewards rather than a more nuanced approach that balanced other democratic and bureaucratic outcomes led administrations to relegate structural and normative aspects of institutionalisation of long-term digital government initiatives.

In the case of the transparency trajectory, major regulatory and normative institutional changes occurred because of the need to maintain a stable political system, and to counter corruption and undemocratic practices in response to pressure exerted by international organisations. The risk of falling into a new major political crisis made the Chilean political elite achieve bipartisan support to promote changes in the transparency and access to information framework, albeit to a limited extent only: waves of corruption were intertwined with institutional advances, and the more serious the crisis, the stronger the institutional progression that followed. On the other hand, pressure from international organisations such as the OECD and the Inter American Court of Human Rights pushed the Chilean political elite to disrupt the transparency institutional framework, i.e. forcing them to go one step further and adopt international standards in transparency and access to information.

Finally, the data governance trajectory showed minor improvements based on the need to provide a better data protection framework to international investors early during the critical juncture period. Data protection regulation represented the major milestone in this period, although other advances can be observed thanks to the digital government agenda. At the time of the critical junctures, Chile also had one of the most developed data protection regulation frameworks in the region, which was useful to further increase foreign investors’ confidence in the country. However, this framework
Institutional outcome: institutional features and path dependency from the three trajectories

was not updated in the period of study, even though it required major changes to make it fully operational for both public and private holders, as well as to incorporate new electronic data protection.

5.5.2.3. Institutional path of symbolic rather than material institutions

The development of these three trajectories also observed an emphasis on symbolism and short-termism instead of the materialisation of institutional trajectories in long-term institutions. Instead of establishing structural regulatory and normative institutions, efforts were systematically concentrated on incorporating symbolic forms of institutions such as values in regulation, sectoral practices and objectives. Besides, the limited resources and incentives that were available focused on political reward rather than being linked to broader social outcomes. An overall preference for limited but sufficient institutions that favoured quick-win initiatives is observed, with an emphasis on the benefits that the political elite could obtain from those events. This symbolic institutional progression was not backed by sufficient structural institutions, resources and adequate incentives to materialise initiatives and make them sustainable in the long term.

In the case of the digital government trajectory, there was a focus on developing and maintaining soft, symbolic regulative and normative institutions over the years. The diversity of institutional forms that the digital government unit experienced over time showed an unclear rationale with regard to the political complexity of digital technologies, which constrained the level of appropriateness of all digital agendas developed during the period of study. Across different administrations, digital government was systematically implemented as a project with limited funding and limited cross-sectoral political support, rather than as an agency or ministry that could have ensured higher levels of political independence, resources and legitimacy to carry out long-term strategic agendas. While this approach seems to have been inadequate for cross-sectoral policies in digital government, it was sufficient to carry out some key projects with high political visibility. Digital government was perceived as a peripheral rather than a core transformative policy, which contrasts with the significant political reward that political elites tried to obtain from those projects that were developed during the same period of time. Due to a lack of regulatory and cross-sectoral normative
Path Dependence analysis of OGD institutional trajectories

institutions, initiatives relied on sectoral capacities and resources, affecting levels of success across public agencies.

The transparency trajectory showed a similar path. The major milestone in the transparency agenda was the enactment of a comprehensive legal framework in response to national and international pressure. This institutional force led to bipartisan political support ensuring citizens’ right to access public data. Although the framework advanced the materialisation of transparency practices (such as passive and active transparency procedures, sanctions and an independent body to monitor its compliance), dominant cultural-cognitive rationales on the value and ownership of public information did not shift due to a lack of sufficient resources and incentives — the framework challenged but did not radically change the dominant culture of transparency. The obliged, bureaucratic sense awarded to this framework by Chilean civil servants exemplified this issue. Additionally, the reoccurrence of corruption cases covering a period of several government administrations reflected the limited incentives that the political elite put in place to strengthen this framework, counter corruption, and prevent its future occurrence. Indeed, the political elite was reluctant to accept that corruption was present in the political system, and overlooked the possibility of future corruption cases.

Finally, the data governance trajectory also focused on the progression of symbolic rather than material regulatory and normative institutions. Minor advances in data governance occurred thanks to digital government initiatives. However, there was a lack of regulatory bodies to oversee their fulfilment, and the initiatives relied on unequal sectoral resources and capacities. Neither the political elite nor public agencies had the political incentives to develop national standards in data governance, apart from the support to advance interoperability and digitalisation of public services. In general, public agencies managed and operated data under sectoral policies and practices, which constrained advances in data-related initiatives; i.e. the symbolism awarded to the data governance agenda in Chile had a major impact on data-intensive projects, which did not take off given the weak institutional trajectory observed during the period of study. One example is the interoperability project PISee, which incorporated few standards for
data management but for only a few public agencies and specific datasets, while most of public information remained deregulated.

5.5.2.4. Institutional path of change caused by contingencies rather than long-term political vision

As stated in previous sections, healthy institutions experience periods of stability and change to provide certainty but also to adapt to current or future conditions. While change to anticipate future opportunities may be a proactive, visionary form of change, it can also be a reaction to critical events which require the adaption of institutional arrangements. This latter more passive approach reflects the preference for stability over disruption. Although institutions require an adaptation to new conditions, there is a predisposition to avoid changes and preserve stable political conditions if initiatives fulfil the purposes which they were designed for in the first place. In the case of Chile, a path of reactive institutional change can be seen between 1990 and 2011, with an institutional preference for stability over the introduction of disruptive innovations.

In the case of the institutional trajectories of digital government and transparency, crisis was the foundational motivation to develop both agendas. The political crisis occurred due to corruption during the critical juncture period which opened up a policy window for introducing both a digital government initiative and a transparency framework in the country. The role that this contingency played for both trajectories was seminal: there was a risk for the political system to become unstable again, and thus reforms were required to have a more efficient and transparent public sector. Arguably, the difference between these two trajectories is their level of politicalness. While digital government represented a more bureaucratic, technological institutional development, the transparency trajectory had higher political visibility, and was thus closer to the perceptions of civil society on the integrity and accountability of local politics. Besides, the influence of crisis on the origins of these agendas differed between the three cases. The transparency trajectory faced systematic waves of corruption, which acted as a driver of institutional change. By contrast, the digital government agenda was not challenged by any major institutional contingency, and thus showed a similar institutional behaviour over time. This institutional stability can be seen as evidence of the functionality of the existing institutional arrangement to carry out transparency.
initiatives and to boost the country’s political dividends. In general, both agendas showed a predominance of critical contingencies, such as political crisis, to mobilise political forces and to upgrade these institutional arrangements.

Evidence shows that the data governance trajectory is also representative of this path: advances made over the years were sufficient to have a workable institutional framework, or to provide the institutional features required to operate data governance initiatives at a satisfactory level. However, advances were avoided given the significant institutional effort required to modify current cultural-cognitive and normative institutions. Several interviewees reflected on the role that crisis might have to upgrade the institutional framework for data governance in future; suggesting that without a crisis, few institutional changes will likely be made.

5.5.2.5. Institutional feedback

One key question to answer is why these paths occurred and how these trajectories were reinforced over time. The feedback produced by institutions along trajectories helps understand the dynamics of positive returns that are derived from staying on a given trajectory. Under the dynamic of positive returns, incentives to continue along the same path increase as long as switching to previous alternatives is more expensive and less feasible, unless disruptions are critical enough to open up new policy windows. Although punctuated by some specific events, trajectories remain on the same path.

Evidence suggests that the paths of the three trajectories were reinforced over the years, as existing institutional arrangements, their levels of symbolism vs materialism, and the availability of incentives and resources were sufficient to fulfil high-level political aims, as well as to operate existing and future initiatives. In the case of the digital government trajectory, it seems that Chile was a “victim of its own success”. As the country’s digital government policies were successful and well-known to the local and international communities (Barros 2016; United Nations 2012; United Nations 2010; United Nations 2003), different administrations did not anticipate the need to further improve domestic institutions in digital government. There was no awareness at the top political level of the need to improve institutions, since these were deemed sufficient to operate successful initiatives as well as to fulfil dominant political aims. Hence, the
reputation and success of a series of policies in digital government during this period acted as institutional feedback to reinforce these paths over time. A similar dynamic can be observed in the data governance trajectory. This trajectory saw less institutional progression over the years, and a clear lack of political will to introduce a comprehensive approach to managing public data as this trajectory did not have sufficient political visibility; i.e. data governance was a socio-technical policy directly involving civil servants, but it did not have sufficient political visibility outside the public sector to generate political incentives and dividends. Albeit weak and limited, data governance institutions mostly relied on sectoral data management practices, which appear to have been sufficient to operate basic initiatives. When asked, interviewees suggested that this trajectory would not have been upgraded unless a crisis had emerged. Hence, the trajectory’s level of sufficiency acted as a positive feedback that enhanced this trajectory, facilitated basic data management practices and avoided a cross-sectoral data governance strategy that would have required more political and economic resources.

Unlike these two trajectories, the transparency trajectory was significantly punctuated by corruption cases that led to institutional change. Rather than being driven by a systematic approach to control corruption, the limited strength of the transparency institutions did not prevent the recurrence of corruption cases. However, why did corruption act as positive feedback for the Chilean political elite to avoid a more comprehensive approach towards corruption early on to prevent the recurrence of these cases? Evidence suggests that these paths occurred as institutional advances were primarily aimed at containing political dissatisfaction, rather than providing a comprehensive framework for transparency and access to information. The comprehensive transparency framework only emerged in Chile in 2008 in response to a major corruption case that created bipartisan support, as well as to the condemnation of the Inter-American Human Rights Court claiming that, by restricting access to public information, the Chilean state was violating basic human rights. Hence, the political elite and Chilean society perceived this as a step backward in a long trajectory of stability and integrity after Pinochet’s dictatorship.
5.6. Chapter summary

The institutional analysis conducted in this chapter shows how the three foundational institutional trajectories of OGD — digital government, transparency, and data governance — progressed between 1990 and 2011. After 21 years of foundations, these institutional trajectories are, to a higher or lower extent, still weakly institutionalised, politicised, and subservient to dominant political rationales. The analysis previously outlined shows that these trajectories and their institutional features generated several paths over the years. In line with path dependence analysis — events occurring in the past guide future events to likely occur along the same route — these findings suggest that future initiatives related to these three trajectories will likely replicate dominant institutional features and institutional paths, with expected similar outcomes.

In line with this argument and having its foundations in the three institutional trajectories, OGD will likely occur along the same paths and replicate similar dominant institutional features. Based on this analysis and the findings reported above, the next chapter analyses the institutional trajectory of OGD, its institutional features and how these paths are replicated in its imp
Chapter 6: The influence of historical political institutions on OGD

“History doesn't repeat itself, but it does rhyme.”

― Mark Twain

6.1. Introduction

In the previous chapter an extensive institutional analysis via path dependency was conducted, in order to determine the key institutional features and cross-sectoral path dependencies that may have had an impact on the particular way the Chilean government has implemented OGD to date. While Chapter 5 and Chapter 6 are part of the same broad analysis – the influence of historical political institutions on OGD – they differ from each other in two ways. Chapter 5 comprises the analysis of institutions from 1990 to 2011, while Chapter 6 focuses on the period from 2011 to 2015. From an analytical perspective, Chapter 5 presents the foundational components of OGD, whereas Chapter 6 focuses on OGD itself. Hence, the purpose of this chapter is to describe the institutional trajectory of OGD in Chile, and to analyse how and to what extent the findings from Chapter 5 influence OGD in Chile during the period of study.

The period of study set for this section is between 2011 and 2015, which comprises two presidential terms: President Sebastián Piñera from the centre-right “Alianza por Chile” coalition (2011 to 2013); and President Michelle Bachelet from the centre-left “Nueva Mayoría” coalition (former Concertación, 2014 to 2015). Further details of the timeline of study can be seen in Figure 4.1. This chapter follows the institutional analysis conducted in Chapter 5, with the timespan from 2011 to 2015 representing the period of integration of the three institutional trajectories previously observed – digital government, transparency, and data governance trajectories. This period can be regarded as the continuation of the reactive sequence period, during which OGD was part of an institutional adaptation to minor junctures observed between 2007 to 2011.
(see Chapter 5). In order to operationalise this analysis, this chapter is organised as follows: first, a detailed historical overview of OGD in Chile is provided covering both presidential terms; and second, using the findings presented in Chapter 5, an institutional analysis of OGD in Chile is delivered, mirroring the impact of the three trajectories’ institutional features and cross-trajectory path dependencies on OGD.

6.2. The development of OGD in Chile: a historical perspective

The preceding section provided an extensive analysis on regulatory, normative and cultural-cognitive institutions developed during 21 years in digital government, transparency, and data governance institutions. These three institutional trajectories show a specific set of institutional features over the years, and have created specific path dependencies that – at this point of analysis – may have an impact on future innovations related to these same trajectories. The following analytical step is to provide a historical overview of how OGD in Chile was designed, implemented and operated over time. This chronology is not organised following the occurrence of the three institutional trajectories since some events were linked to several trajectories at the same time. Instead, two broad periods are identified to provide evidence of the political shifts that occurred in those years, i.e. the terms of President Piñera (2011-2013) and President Bachelet (2014-2015). A list of political events during the period from 2011 to 2015 can be seen in Table 6.1 and Figure 6.1 below.

6.2.1. President Piñera’s term (2011-2013)

6.2.1.1. The subscription to the Open Government Partnership

The advances in transparency and access to information observed during Bachelet’s presidency shifted further in 2011 when Sebastián Piñera decided to join the open government movement by subscribing to the Open Government Partnership (OGP). Piñera brought cultural-cognitive rationales of efficiency from his entrepreneurial background, and attempted to embed it into the public sector through “a new way of governance” – which also an attempt to distance himself from past cases of corruption in the political elite (Funk 2011). Indeed, Piñera’s term is well-known as a results-oriented government, with emphasis on statistics and figures to show off successful
policies and thus to enhance his reputation as statesman, both locally and internationally (PSP-09; PSO-05; RA-01).

Interviewees recall the coinciding of Piñera’s promises of new ways of governance and the growing international movement for open government both globally and in the USA. Piñera saw in open government an extension to his efficiency agenda by focusing on the digitalisation of public services. Additionally, he observed this movement as a way to promote Chile as an outward-looking and modern country to the developed world (PSP-10; CS-01; CS-07), as well as to enhance his local and regional leadership by adhering to Obama’s policies. Piñera had a tacit admiration for Obama, which interviewees agree was a key incentive to provide political support to the open government agenda, continuing a long tradition of using transparency initiatives to project an image of integrity to both the region and the rest of the world:

“President Piñera had a strong desire to emulate Barack Obama in Latin America. I think that was the reason why these policies received so much political attention, while the development of initiatives with real impact, institutionalising agencies, or providing more funding for the implementation of these agendas was neglected by the Central Government.” – Public Sector Official in Transparency (PSO-08)

However, the subscription to the OGP was, once again, not fully backed institutionally by sufficient resources and political support, and there was a lack of long-term institutions to make this agenda transformative. By awarding an efficiency-modernisation rationale, Piñera allocated the open government agenda to MDGU, which showed similar handicaps to the digital government trajectory between 2010 and 2011 reflected in limited regulatory and normative capacities to implement a transformative agenda (CS-07; RA-12; PSP-09; PSP-10). MDGU led the development of Chile’s first OGP action plan during 2011. Interviewees observe that MDGU concentrated Chile’s commitments on initiatives that did not require major funding, and mostly focused on the digitalisation of public services during this process. Besides, interviewees mention that MDGU did not want to take on any risk related to this plan, diminishing the transformative role that open government could have brought to the country (CS-07; PSP-10):
“We didn’t take any serious risks in doing the [OGP] action plans, because we didn’t want to be seen internationally as a country which doesn’t achieve its commitments. I would say that 80% of our activities were easy-to-do, while the other 20% had a certain level of risk. There was no political will to go further in this agenda.” – Public Sector Practitioner in ICTs (PSP-10)

Overall, the subscription to the OGP was characterised by a lack of resources and the political instrumentalisation of the agenda by the President to align Chile to international standards. Political support and economic resources to implement a disruptive agenda and to materially embed it into long-term institutions were not provided. Instead, the OGP only enabled peripheral advances instead of transformative initiatives, i.e. the modernisation of public services was emphasised rather than co-creation or participatory public service delivery.

6.2.1.2. Initial implementation of OGD

The idea of implementing OGD was born at MDGU in 2011, and was initially regarded as a low-cost opportunity to expand the transparency agenda that had been implemented in the past by several members of this Unit who remained at SEGPRES (CS-01; PSO-03; PSP-03; PSO-02; PSO-01). The first approach to an OGD policy was in 2011 when SEGPRES looked for alternative strategies to enhance the FOI act (before the subscription to the OGP). Since passive transparency overloaded public agencies with the time-consuming collection and processing of data to answer transparency requests, OGD was seen by MDGU as a way to deepen the existing transparency framework, and to address the weaknesses of its earlier implementation:

“For us OGD was a good opportunity to reduce the internal costs of active and passive transparency, which are still a handicap of the transparency agenda in the country.” – Former Public Sector Official in ICTs (PSO-02)
Figure 6.1: Timeline of historical events during the OGD implementation period (2011-2015)

- **2011**
  - October’11: Launch of the MDGU e-Government Strategy 2010-2014 (SEGPRES)
  - September’11: Chile enters the Open Government Partnership (OGP)
- **2012**
  - October’11: Launch of the OGD website: beta version
  - December’11: Working group to develop Chile’s OGP action plan
  - March’12: President Bachelet takes office
  - August’12: Presidential Instructive 005-2012 of open government and OGD
- **2013**
  - April’12: Chile’s 1st Action Plan for OGP 2012-2013
  - November’12: Official version of the Chilean OGD portal
  - December’12: Public hackathon led by MDGU
  - November’12: Chile’s digital agenda 2013-2020
- **2014**
  - March’14: President Bachelet takes office
  - August’12: Presidential Instructive 005-2012 of open government and OGD
  - November’12: MDGU commits to organise Latin American OGD Conference in 2015
  - November’13: Chile’s digital agenda 2013-2020
- **2015**
  - October’14: MDGU commits to organise Latin American OGD Conference in 2015
  - November’14: Workshop for public data publishers – “Social Reuse of Open Data”
The first OGD platform was developed under a centralised approach by MDGU in October 2011 (RA-05; PSO-05). MDGU created a beta version of the platform by using public datasets obtained from the websites of public agencies, however without further consulting them on the usage of these datasets. The Unit admits that this approach was an efficient way to quickly deploy a low-cost platform, while it helped promote OGD solely as a bureaucratic and centralised initiative, mainly useful to optimise the transparency agenda:

“We (MDGU) collected several datasets from other websites and uploaded them to our platform. In case these datasets were closed formats we converted them to CSV or XLS. We did not ask for permission to do this, and only sent a memorandum congratulating other agencies for their participation in the programme. If we had started asking for permission, it would have taken too long.” – Former Public Sector Official in ICTs (PSO-02)

However, interviewees observe that this approach restricted the formation of collective goals for OGD, as agencies perceived that no further commitment was required to participate in the initiative (PSP-09; PSP-10). After launching the beta version, MDGU
outsourced the development of the OGD platform to Junar, a start-up supported by the Chilean government since they provided a more dynamic solution to manage and visualise the datasets (PSO-02; PSP-03; PSE-01). The presence of Junar was solely operational, although they actively participated in dealing with public offices to release datasets. The number of released datasets over this period (until the launch of a new version) reached around 200, while MDGU continued with the practice of withdrawing data from the websites of public offices (PSE-01; PSP-03). Junar played a relevant role by helping curate datasets prior to their disclosure through the forthcoming open data portal.

The rationale for this approach comes from the team of technologists recruited from other ICT-based projects within the state, e.g. the implementation of the transparency agenda by SEGPRES. This team consisted of members who did not have a formal technological background but possessed significant technological experience, e.g. economists, psychologists, or audio-visual communicators (PSP-10). Software developers were also recruited, creating a strong team with experience in the public sector and an entrepreneurial approach within the Government. Interviewees see these members as major promoters of the introduction of OGD as a strategy to deepen the transparency agenda, as well as a great political opportunity to become the first country in the region to fully implement an OGD project. While the strategic managers at MDGU did not have a clear understanding of the benefits and barriers of OGD, tactical members saw an opportunity to implement an innovative project with impact for both Central Government and civil society:

“I would rather say sorry and make a mistake, than asking for permission all the time. I know this logic crashes with the traditional bureaucratic view of public servants that always ask for permission and never take risks. This is the only way to develop initiatives here, otherwise the bureaucracy will immobilise you” – Former member of MDGU (PSO-02)

Almost simultaneously, the open government movement emerged to provide top-level political support to OGD. Chile subscribed to OGP in October 2011, and in April 2012 launched its first action plan. OGD was then immediately linked to OGP given its role to enhance transparency and accountability agendas (CS-01; PSP-03; PSP-10; IN-02; PSO-
Interviewees highlight that Chile’s subscription to OGP was determined by President Piñera’s attempt to assume a leading role in the region and globally by adopting successful initiatives from the Global North that promoted transparency and efficiency, such as the US’s Open Government Directive or the UK’s Delivery Unit:

“In November 2011 Piñera launched MDGU and declared their core values, including open government policies. The President himself told us he wanted to promulgate a similar directive as Obama did in the USA; he wanted to open public data. He convinced himself that this was a valuable policy which had brought so much political reward for Obama. Then we started to create the conditions for OGD to happen”
– Former Public Official in ICTs (PSO-02)

This aspirational rationale was conducive to obtaining Presidential support for OG and OGD agendas, which were perceived as relatively low-cost initiatives but with significant international political reward (PSO-01; PSO-02; RA-04). This rationale has been a cross-sectoral characteristic of public policy making in Chile: an aspiration to follow international standards to differentiate the country from other regional governance models and to maintain political stability, by assuming international commitments which constrain local political forces (RA-12; CS-03; PSO-04; RA-08).

Chile, as well as other countries from the second cohort of OGP, completed its action plan with an evident bias to modernisation and digital services, such as the digitalisation of public services, open data programmes, or transparency frameworks (CS-06; IN-02). This emphasis was provided by MDGU, the Unit responsible for open government during this period, which was looking for quick wins in modernisation of the state and ICTs to boost its agenda (CS-06; PSP-10). MDGU incorporated ongoing initiatives in this plan to ensure Chile would obtain a good performance score in the final assessment (CS-06; CS-01; Sanhueza 2012). Thus, Chile used this plan to enhance the modernisation and digital agenda while core values of the OGP, such as participation and collaboration, were mostly disregarded:

“In Chile there is no open government policy, to be honest it is rather a membership of the OGP. We have had two action plans and we have been working on a third one. The first two plans were largely focused on the modernisation policies and open data. In particular, open data has been useful to position open government in the country because it
The development of OGD in Chile: a historical perspective

is the only policy with public visibility. So when you talk about open government in Chile you talk about OGD. The commitments have been mostly focused on the digitalisation of public service delivery, but not on accountability, public policy management or citizen participation. Only 2 out of 12 commitments are linked to citizen involvement. The Government has done a poor job in penetrating the value of open government and its principles. Instead, it has largely focused on issues related to the modernisation of the state.” – CSO advocate in transparency and open government (CS-07)

The OGP agenda was also instrumental in helping establish OGD by assuming international commitments which were locally and internationally monitored (PSO-08; CS-01; CS-06). Whilst OGP’s core values have not permeated the Chilean government yet, there has been sufficient political support for OGD policies (CS-01; PSO-08). However, since OGP assesses compliance rather than the quality of commitments, the OGP agenda will likely not have a significant impact on deepening the initiative in the future.

6.2.1.3. The Presidential Directive on OG and OGD

The political momentum for OGD was crowned by the promulgation of a Presidential Directive for open government and OGD7. MDGU obtained direct support to promulgate this directive due to the close relationship between its director and President Piñera (PSO-02). Interviewees from MDGU admit that Piñera had two rationales underpinning his political support: while the President saw the political rewards that this agenda may bring him locally and internationally – by becoming the first regional country and one of the few members of the OGP to implement OGD and OG directives – the benefits derived from OGD were supported his political ideology and programmatic aim of increasing administrative efficiency and economic growth (PSO-01; PSO-02; PSP-03; PSP-10).

With Piñera’s political support, MDGU developed this directive which framed both the rationales and procedures to implement OGD. In practice, public offices were required

7 Presidential Directives are official documents signed by the President, and legally valid to oblige Chilean sectoral offices to implement a specific public policy. They can be monitored by the Chilean National Audit Office. In practice, directives should define the sets of values and practices for implementing these initiatives, as well as timeframes and operational instructions.
to release five datasets of public value within 60 days after the promulgation of the Directive. The document highlights that “the relevance of these datasets should be defined according to citizens’ interests” (Piñera 2012, p.3). It defines a participatory process to allow citizens to request the publication of new datasets; something which was never fully implemented (PSP-09). In addition, it declares that MDGU would release technical guidance to help public offices disclose datasets on the portal. It was the responsibility of each public agency to define strategies to implement this directive.

Interviewees admit while this document provided symbolic political support to OGD, it did not define specific material and operational practices to be implemented, which constrained its political message (PSP-10; PSO-09; CS-04; IN-02; RA-04). Initially MDGU admitted that implementing an OGD programme at the same scale as developed countries would require other material regulatory and normative institutions, as well as sufficient resources and aligned incentives (PSO-01; PSO-02; PSP-03). The Directive provides enough flexibility to allow public offices to define their own strategies and practices to implement it (PSP-10), which led to a reliance on sectoral resources and cultural-cognitive rationales. However, at the same time the Directive does not provide any further control or mechanism to enforce public agencies’ compliance with relevance and quantity of datasets, allowing public agencies to choose their level of commitment depending on their own interpretation and resources:

“When I started working there [public agency], the Directive was more or less ready to be promulgated, and it was like imitating Obama with his open government proclamation. It was very similar. But finally it was done in the ‘Chilean way’8, soft and with less coercive means. When the Directive was published, the logic of public agencies was to obey it. And that was one of several problems that the Directive has: because reaching public offices is so difficult, the Directive impeded rather than supported that communication process. In the end it produced more work, because public agencies only wanted to do what the Directive said, and then just ‘good bye’. And I saw it: several agencies told me that if the Directive had forced them to publish regularly and update datasets they would have done it. But it did not,

---

8 The Chilean way is an idiom to express that particular events/decisions are adapted to the local context and culture, usually softer and less ambitious than their countries of origin.
and they did not know that they had to do it” – Former Public Sector Practitioner in ICTs (PSP-10)

The extent of participation varied according to the agencies’ understanding and will: while some offices immediately understood the purposes of OGD, others saw this initiative as just another bureaucratic task to support the transparency agenda (PSP-10; PSP-12; PSP-07; PSO-03). Whilst the Directive was useful to provide symbolic institutional forms to encourage offices to participate, it did not provide any further material means of control or sanctions. As a result, MDGU defined different approaches to persuade public agencies to endorse OGD (PSP-10; PSP-03).

6.2.1.4. Launch of the OGD portal and implementation of the Presidential Directive

The Presidential Directive mandated the implementation of an OGD portal, which had previously been developed by MDGU (front-end system) and Junar (back-end and visualisation systems) (PSP-03). Once the Directive was officially released, agencies were formally committed to publish five datasets within 60 days. MDGU appointed a member of the Unit to provide technical support to public agencies in operating the platform, as well as to supervise the compliance with the Directive. In practice, the OGD portal required several user profiles to upload, edit, and publish datasets. However, there were no clear instructions to appoint those tasks to specific existing roles, thus agencies valued these tasks differently: while some offices appointed transparency and complaint unit civil servants, others allocated these tasks to sectoral CIOs, which reflects the diversity of rationales to implement OGD (PSP-03; PSP-09; PSP-10).

The work plan of MDGU only concentrated on releasing datasets according to the Directive with objectives relating to the number of uploads and downloads. MDGU published a technical guidance document (UMGD 2013b) and had a technical team available to support agencies. However, interviewees admit MDGU did not consider any further material regulatory directive or normative practices to transmit their aims and technical considerations (such as data quality and usability) (PSO-02; PSP-06; PSP-10; PSP-12). Several agencies did not fully understand the purpose and practical implementation of OGD due to a lack of further directives (PSP-12; RA-03; RA-04; IN-02; CS-04). For instance, MDGU relied on the data skills of agencies to release and disclose
datasets (PSP-06; PSP-12). In order to quickly commit these agencies to OGD and clarify their doubts, MDGU approached them with the argument that compliance with the Directive would lead to increased efficiency and reduced bureaucracy with regard to transparency:

“The most participative agencies were the ones which anticipated the cultural change of publishing in open formats, or the ones which saw an opportunity to automate and reduce workloads associated with transparency. Then, the first public servants who saw these benefits were transparency officials... we found several ‘angels’ who understood what open data meant, often due to operational reasons: they were exhausted from people always asking for the same data. Hence, if they published that dataset, they could just refer data requests to that dataset. The only thing they would have to answer was the link to the dataset and then the solicitor did the rest of the work. We used these logics often to convince public institutions: through OGD they can reduce bureaucracy related to transparency, and then it was easier to approach them” – Former Public Sector Practitioner in ICTs (PSP-09)

Public agencies responded by uploading several datasets that were usually the less expensive ones to transform into machine-readable formats, or the ones which produced fewer tensions within the agencies (PSP-03; PSP-06; PSP-10; PSP-12). While the Directive only symbolically suggested the release of datasets based on their usability and relevancy for citizens, agencies did not endorse OGD by following that approach. Interviewees recognise that most datasets were of low quality and relevance since OGD was perceived as just another transparency-related workload (CS-02; CS-04; IN-04; JT-02; JT-01). Agencies thus rather focused on the reduction of existing bureaucratic transparency tasks (PSP-09; PSP-11). Both transparency and OGD practitioners identify that the Government approached public agencies by highlighting that OGD would help them reduce the number of passive requests and bureaucratic tasks associated with the transparency framework:

“The Government [MDGU] has systematically promoted OGD as an extension of the transparency agenda in the country to make transparency-related bureaucratic tasks more efficient and less expensive.” – Public Sector Official in Transparency (PSP-06)
OGD practitioners also highlight that MDGU adopted a centralist and authoritarian approach to implement the 60-days period of the Directive, disregarding institutional realities and local politics (PSP-06; PSP-12). This rigorous approach to upload the required five datasets and hence quickly increase the overall number of published datasets contrasts with the limited introduction of objectives and work plans by MDGU, and the flexibility provided by the Directive in terms of data formats, relevance and quality. The dichotomy observed in the Directive meant sectoral agencies understood OGD as an isolated project which did not require long-term commitments (PSP-06; PSO-12; PSP-08).

However, looking at the number of datasets the implementation of OGD was successful (PSO-02). Previous to the implementation of the Directive, the OGD portal had around 200 datasets. Once the deadline was due, the OGD portal reached more than 1,100 records (PSO-02; PSP-03). This implementation process brought dividends: Chile obtained regional and global political reward given the fast deployment of the Directive and the strong political support from the President in this process (RA-06; IN-02; PSO-02; PSP-10). However, the engagement of public agencies after the deadline exposed the limited extent to which OGD was truly adopted by public agencies.

6.2.1.5. The role of CSOs

The emergence of an open government agenda and the subscription to the OGP helped articulate CSOs to promote participation and collaboration (CS-07). As part of OGP policies, transparency-related CSOs integrated national and international commissions to develop and monitor Chilean action plans. However, the involvement of CSOs as collaborators or intermediaries in the early implementation of the OGD initiative was relatively limited due to two reasons: the constraints to the CSO ecosystem made FCI the only valid counterpart to MDGU; and the different meanings awarded to OGD by CSOs and MDGU.

Over this period, the main role of transparency-related CSOs was monitoring compliance with the legal framework. Although these organisations perceived benefits of using ICTs for transparency and accountability, they admit that a lack of funding and low levels of ICT skills limited their involvement in OGD (CS-01; CS-03; CS-05; CS-06). By contrast, FCI had a civic technologist core that developed several web projects to facilitate
transparency and accountability processes in Chile (PSO-04; IN-03; PSP-06). This rationale led technological donors (such as Google or Omidyar Network) to inject generous funding to develop civic technology projects; an opportunity that other CSOs did not have (CS-03; CS-06). FCI became the only valid CSO to both collaborate on and monitor the implementation of OGD.

However, FCI and MDGU attributed different meanings to OGD, which caused counter-productive effects. While MDGU valued OGD as a tool to reduce bureaucratic tasks related to the Chilean transparency agenda (PSO-02), FCI promoted OGD as a basis for civic technological products which would deepen transparency and accountability processes (CS-04; PSO-04). This contrast can also be observed in the different ways they valued each other.

MDGU perceived FCI as an eager promoter of OGD which was constantly pushing the Unit to release relevant datasets, especially to support developers participating at “Desarrollando América Latina” (DAL, a regional hackathon organised by FCI) (PSO-02; PSP-10). Besides, FCI was also seen as a monopolistic organisation, trying to lead the CSO agenda but limiting the emergence of other organisations (PSO-02; IN-03). The promotion of data disclosure contrasts with the lack of systematic usage of OGD by FCI (PSO-02; PSO-04; CS-04). Instead, they made extensive use of passive transparency, with several transparency officials identifying them as regular requestors (PSP-06; PSO-10; PSO-12). In order to enhance collaboration, MDGU usually assisted FCI by channelling their dataset requests to public offices or participating in their events (CS-02; PSO-02).

MDGU also supported FCI to reinforce the Unit’s image of a collaborator:

“FCI called for developers from the civil society to participate in DAL. At that moment they pushed us to increase the quality of our datasets, especially their Executive Director. I then said to him: ‘Look, we are the only country in the region with an OGD portal, don’t complain. Now we are going to have an OGD Directive, so tell me which datasets you need for DAL.’ OK, we did it; we tried to support them by obtaining those datasets. For us it was also a strategy, because we did it to have really good relationships with CSOs – in this case only FCI. And then they started to talk well about us because we collaborated with DAL and Chile was the only country with official public datasets, while other
countries had to do mostly data scraping.” – Former Public Sector Official in ICTs (PSO-02)

In contrast, FCI perceived MDGU as an entrepreneurial unit that received strong political support but lacked a long-term strategy. Indeed, FCI – as many other interviewees – define MDGU as an excellent technical unit which has tried to obtain maximum political reward from initiatives that may have had higher impacts if they had been planned with long-term objectives in mind (CS-02; CS-04; PSO-04). FCI has openly questioned the poor quality and limited relevance of the datasets comprised in the OGD platform: overall, datasets were of limited use and uploaded to merely fulfil the deadline set by the Directive (CS-02; CS-04; IN-05; JT-02; JT-03; RA-04). While these perceptions did not fully impede collaboration between MDGU and FCI, their different cultural-cognitive rationales was conducive to tactical collaboration, rather than a long-term partnership.

For FCI, MDGU was deliberately implementing OGD to obtain political reward:

“I think the main reason [to develop OGD] was to join the OGP and to be regional leaders. There was such a rhetorical discourse about that achievement by MDGU. There was an undiscriminating disclosure of public datasets with no further value analysis at that time. The purpose was solely to release more and more datasets.” – CSO advocate in ICTs (CS-04)

FCI also reflected about their role in the development of OGD. While FCI perceived themselves as key promoters of OGD, they also mention that aggressive advocacy with no further active use or promotion of these datasets could have been harmful for the agenda. They put pressure on the Government to release OGD, but there were no practices and strategies in place to channel these datasets to OGD intermediaries or Chilean civil society through data-based products:

“I think aggressive advocacy for OGD is not really useful because in the end it does not incentivise data disclosure if those datasets are not used in practice. When I say aggressive advocacy I mean that we, CSOs, annoyed MDGU a lot to disclose more datasets; we sent letters, we called, everything. But then, later on, they opened some datasets and even we did not do anything with them. Thus, it is likely that disclosure represented a high operational cost for public agencies, and then they are right when saying ‘So, what did you do with them? They were downloaded only five times’. What does this cause? Discouragement
The influence of historical political institutions on OGD

of civil servants. They do not see the practical usefulness of opening up datasets.” – Former CSOs advocate (PSO-04)

The different views on OGD from FCI and MDGU constrained the development of a collaborative agenda, which inhibited the expansion of the initiative and reduced its impact compared to other countries in the region (World Wide Web Foundation 2014). The Unit tried to deepen connections with civil society by organising a hackathon in November 2012. This event aimed at promoting the use of public datasets, which were hosted on the portal, for public service delivery purposes by CSOs and civic technologists.

6.2.1.6. Commitment of public agencies to disclose OGD

During 2013 public agencies had to continue to disclose datasets according to the Presidential Directive and further guidance from MDGU. Following intensive lobbying by MDGU to launch the initiative, the Unit looked at deepening the OGD agenda by coordinating further disclosure with public agencies. Agencies showed varying levels of engagement with the programme during this period: some agencies were highly committed to OGD and continued to release datasets, while other agencies ceased active participation and only collaborated upon request or after lengthy negotiation processes since MDGU did not have material sanctions or control to enforce actions by these agencies (PSO-02; PSP-03; PSP-10; CS-04).

The varying degrees of participation can be explained by MDGU’s approach to elucidate and disseminate OGD and its underpinning cultural-cognitive rationales. During Piñera’s term, MDGU did not carry out any induction or training for officials responsible for OGD. On the contrary, the Unit mainly focused on the quantity of datasets rather than their quality, and did not pay sufficient attention to the use and impact of OGD (IN-02; PSO-02; RA-03). Interviewees highlight that MDGU emphasised transparency-related benefits such as lower levels of bureaucracy and less expensive passive transparency processes (PSO-02; PSP-03; PSP-10). This approach was facilitated by the inheritance of governing cultures and practices from past transparency-related events, driving OGD towards the publication of easy-to-produce and low-impact datasets, while disengaging sectoral officials from the broader, socio-political potential of OGD:
“Often the first adopters are transparency officials; they are like angels who understand what OGD is and push for its implementation. However, often they do it for a practical reason: data requestors usually ask for the same type of information, so for them OGD would be a good way to publish that data and get rid of the problem; then the only thing you then have to answer is the link to that dataset and the requestor does the rest of the work... If OGD was at the core of public institutions, they would have never stopped publishing or we would still maintain direct communication with those agencies. I think there is a massive lack of vision here. Transparency and sectoral OGD officials do not perceive the value of data releases.” – Former Public Sector Practitioner in ICTs (PSP-09)

Some public agencies actively continued to participate in OGD. When interviewed, MDGU and participating offices highlighted the relevance of understanding both the meanings and benefits of OGD, as the appropriate incentives to foster agencies’ engagement (PSO-02; PSO-07; PSO-11; PSO-10). In the absence of coercive means to enforce the implementation of OGD in sectoral agencies, MDGU relied on technical and bureaucratic incentives, which were usually related to external political rewards for those leading these agencies (PSP-03).

The role of internal OGD champions was relevant for further (dis)engagement of public agencies. OGD champions are key managerial roles within public agencies who anticipate the political benefits of OGD for both themselves and their offices, and are able to assume political commitments to the disclosure of data (PSP-09; PSP-10). Interviewees from MDGU admit that in offices with higher levels of commitment, OGD champions recognised the political reward that this initiative may bring, either for institutional or personal career purposes. Champions were able to commit civil servants to disclose datasets and undertake policies to make data available according to MDGU guidelines. In these offices, barriers to OGD, such as the absence of data governance practices or legal restrictions to personal data disclosure, were more easily overcome with this political support. While MDGU did not provide specific figures, they observed only a few offices that matched this institutional entrepreneurial profile (PSP-10).

In contrast, offices with little collaboration efforts usually did not have OGD champions. Interviewees see that these offices were less keen to adopt OGD given a lack of
awareness of the benefits of OGD by public sector officials, and a general resistance caused by lack of data governance practices as well as limited awareness of data protection regulation to disclose anonymised personal data. This reluctance was primarily present at the top managerial level; they perceived OGD as a threat to their political position and as an expensive institutional challenge due to the costs of personal data anonymization. They also feared that users could misuse or misinterpret their data, which could have a negative impact on sectoral and national public policies.

“[About adoption of OGD in public agencies] it required so much conversation between us and public agencies, but definitely it depends on internal leadership at the managerial level. For example, we went to a data-intensive agency and we were in conversations for several months, while at a more managerial ministry one of the deputy directors assumed the OGD project and in two weeks we could start planning a sectoral OGD portal.” – Former Public Sector Official in ICTs (PSO-04)

“Finally, all public agencies want political credibility and to validate themselves in front of their peers. When someone from a different public agency comes to offer a project, they immediately think they are coming also because they need to validate themselves in their sectoral agency. If the executive leader does not see the political reward of OGD they will not adopt it.” – Former Public Sector Practitioner in ICTs (PSP-10)

As a consequence, similar rationales for transparency-related practices were inherited by these offices. However, unlike the transparency framework, MDGU did not have any coercive mean to enforce the compliance with the programme. Dominant rationales on data disclosure in these offices showed fear of negative externalities caused by how users may interpret OGD, violations of data protection regulation, or political resistance to give up data as a source of power. Some interviewees highlight the collision between an open and a more closed approach towards data disclosure, the latter one usually being dominated by lawyers and bureaucrats who restricted and resisted openness in public policy. MDGU admit that the majority of public offices showed some form of resistance to adopt OGD.

Interviewees also observe the lack of contextualisation and long-term strategy for OGD in Chile. In the absence of long-term and cross-sectoral strategies for data governance
or digital governance practices; actions within sectoral agencies were shaped by their resources, incentives and skills. Given resources, skills and incentives are diverse and heterogeneous, local realities need to be taken into account to implement OGD. However, MDGU disregarded local organisational politics and contexts and relied on sectoral data and technical skills to disclose datasets:

“[About importing initiatives from the Global North] Indeed, their appropriateness is complex, because you are looking at external examples and how successful they are abroad, but you need to see those cases within the local context, local culture... you need to see whether here we have effective technical capacities, and how those initiatives can align with the aims of internal agencies, in order to effectively adopt them. So that they will be perceived as part of your business core and your particular work culture, and not as an obligation or extra workload as is the case nowadays.” – Public Sector Practitioner in Public Data (PSP-12)

6.2.1.7. MDGU and the challenge of engagement

The tension between these two rationales – endorsement of OGD and resistance to OGD – challenged MDGU to engage offices in the adoption of specific strategies and technical procedures to implement OGD. Interviewees identify that MDGU conducted an unclear induction process with very limited dissemination of core OGD values and low levels of technical support, mostly relying on existing sectoral technological and technical data skills in data disclosure. This approach did not foster incentives and collective goals for OGD, and restricted the formation of alliances across the Government to promote a national OGD agenda (RA-03; PSP-09).

Initial core political support provided to OGD by MDGU was limited to the implementation of the OGD platform, but it did not cover other key aspects in OGD policies such as long-term strategies, practical use of datasets in policy making or public service delivery, and dissemination of benefits. In the absence of data governance or digital government cross sectoral policies, public agencies relied on their own cultures, resources and incentives for data disclosure – which were partially inherited from past digital governance and transparency agendas. OGD became an additional complementary programme as part of a larger concentrated agenda focused on the
digitalisation of public services. This lack of interest is explained by the limited political incentives and resources MDGU had available. Given MDGU obtained rapid regional political reward with OGD, the Unit continued to focus on “ChileAtiende”, the one-stop shop which required more extensive efforts in interoperability between public agencies (PSO-02; PSP-10). Indeed, MDGU could have enhanced other data-related projects such as AEM or PISEE – the interoperability platforms to facilitate the reuse of datasets – an approach that was disregarded due to significant coordination and technical costs involved (PSO-04; RA-03; PSE-03):

“For our executive director it was more important to push ChileAtiende compared to OGD, since the political impact for our Unit and the improvement of public service delivery for citizens, was way more pronounced with ChileAtiende than with any other open government initiative such as OGD. Besides, open government initiatives require that agencies adopt other core values such as citizen participation and improvement of democracy. But those values were not relevant here inside the Government at that time.” – Former Public Sector Practitioner in ICTs (PSP-10)

This restricted institutional context limited resources and incentives of MDGU to adopt a long-term strategy for OGD, thus affecting how it was perceived by other agencies. Visiting sectoral agencies for the purpose of introducing OGD without providing further technical advice, MDGU was often seen as authoritarian by CIOs or transparency officials involved in OGD during Piñera’s term. MDGU did not commit to understanding the specific cultural and technological sectoral contexts, which is crucial for OGD adoption (PSP-06; PSP-12). Public offices admit that they only participated because of the enforcement exerted by the Presidential Directive or to further their own sectoral transparency agendas (PSP-12; PSO-10; PSO-11):

“OGD was like an external straitjacket which was not integrated into our work practices. But since SEGPRES was leading this initiative, they should have considered nuanced approaches to integrate OGD in our organisational culture. The work they have done in that area has been extremely insufficient to date.” – Public Sector Practitioner in Data Management (PSP-12)

“What happened with OGD? They adopted an aggressive approach that meant from a specific day all public services had to publish their
datasets. Nobody here understood what the purpose of this was. A different approach would have been more convincing to participate in OGD. If you want to impact culture you have to take the long route. And that means understanding the culture of public servants.” – Former Public Sector Practitioner in Transparency (PSP-06)

To manifest the OGD agenda, the strategic level at MDGU decided to develop data-driven apps themselves. These applications aimed at using socially relevant datasets to provide public service delivery. Three apps were developed during this period: iTransantiago (traffic and public transport information); iBencinas (variance in the cost of petrol across different cities); and iFarmacias (location of on-duty pharmacies). The purpose of these apps was to target relevant public service delivery with high levels of social dissatisfaction, through easy-to-develop apps (PSP-03; PSP-10), as well as to manifest OGD and the impact it may create for public service delivery. This approach brought MDGU further international awards and political credibility:

“I think OGD was an achievement. It was in 2013 already, and the Directive mandated us to develop other initiatives such as a citizen participation portal. So we focused on those projects and left OGD behind for a while. Our logic was to develop apps to show the value of OGD. Basically, the Unit works according to our deputy directors, and they thought it was really cool to develop apps, so they did it.” – Former Public Sector Practitioner in ICTs (PSP-10)

The apps developed by MDGU were widely recognised by local and international organisations. However, other activities organised by civil society did not achieve the same political impact. The hackathon format was also perceived as a limitation as it did not fully allow the production of high quality products; i.e. datasets were of extremely poor quality with limited impact, and the events lacked coordination with sectoral offices to both request and understand data to build data products. Further, data products were not incubated to provide medium-term support and resources (IN-01; IN-03; IN-05; JT-03).

The aforementioned institutional landscape inhibited the consolidation of OGD into a long-term agenda, which remained limited to symbolic, individual efforts by MDGU and some institutional entrepreneurs. MDGU did not address the challenge of engagement,
having neither medium/long-term plans nor activities to make sectoral offices appreciate the values and benefits associated with OGD.

6.2.1.8. Institutional trajectory of OGD in the period 2011-2013

Evidence suggests that OGD was designed and implemented with a limited emphasis on its institutionalisation during President Piñera’s term, resulting in a weakly institutionalised OGD initiative by the time he left office. The initiative did not comprise strong material regulatory and normative institutions. The Presidential Directive 005/2012, being the main regulation during this period, did not legally frame OGD as it only requested the disclosure of five datasets. This limited reach became evident when the Directive expired, and data disclosure relied on sectoral agencies’ will to continue to collaborate with the initiative. This symbolic disclosure approach was not addressed by a comprehensive strategy or public policy that would have materialised the initiative. Instead, the OGD initiative did not define clear procedures and roles in data disclosure, neither did it define strong cross-sectoral long-term objectives for OGD. MDGU defined general symbolic objectives but did not attempt to materialise them and to carry out a comprehensive approach towards policy development. In addition, dominant rationales on OGD were focused on promoting OGD as a way to reduce the existing bureaucracy of transparency-related initiatives, while other key meanings for OGD such as political or economic outcomes were mostly disregarded. OGD was observed and promoted as a useful and easy-to-deploy tool to reduce negative externalities of the transparency agenda, and to place Chile as regional open government champion.

This weak institutionalisation can be understood by the limited incentives and resources that were available to promote a more comprehensive, actionable and collective policy for OGD. It is observed that incentives for OGD were focused on obtaining quick political rewards rather than long-term benefits and the commitment of sectoral agencies in national policy. OGD became a tool to support Piñera’s promotion of efficiency and entrepreneurial practices constituting the basis of his governance model. His administration saw an opportunity in OGD to deepen his efficiency agenda by endorsing an initiative that promised data-intensive policy decision making and a reduction of the hours of work and costs arising from transparency-related bureaucracy. It was hoped that this would position Chile at the regional forefront in open government and public
data disclosure, and President Piñera as regional leader in open government. Albeit receiving major direct political backing from President Piñera – who anticipated the political benefits from subscribing to this international organisation – Chile’s membership of the OGP during this period mainly saw cosmetic and peripheral interventions rather than transformative projects, being OGD an example of this approach. Additionally, MDGU did not have sufficient political backing and economic resources to develop a comprehensive OGD initiative, relying on sectoral agencies to actively curate and ensure the quality and usefulness of these datasets, and largely disregarding adequate actions to support other agents in making effective use of OGD.

During this period, interviewees from MDGU and the Government acknowledge the political relevance of entering into a fashionable but mainstream policy with political momentum in the developed world such as OGD and OGP. Becoming the first country in the region to implement a national OGD initiative, Piñera’s administration promoted Chile as an innovative country which could rapidly replicate successful practices from the developed world, enhancing the President’s political image and the country’s reputation abroad. Hence, underlying goals related to political reputation rather than real impacts of OGD were translated into an institutional trajectory with a predominance of quantitative and image-related goals for OGD.

6.2.2. President Bachelet’s term (2014-2015)

6.2.2.1. Institutional fragility of OGD

The arrival of President Bachelet in 2014, assuming her second term, acted as a disruptive event for OGD in Chile. With changes in political ideologies and programmatic priorities, the limited (symbolic) institutional framework in place for OGD showed its weaknesses. Several public servants at the first and second hierarchical level left the Government, i.e. they were made redundant for political reasons, or were relocated to a different agency – also a sign of a weak civil service system in the country. While the top managerial level at MDGU left the Unit, its operational team stayed and continued to implement initiatives such as OGD, although these were not fully backed by regulatory institutions. Unlike President Piñera, President Bachelet did not assign a clear programmatic priority to modernisation and digital government policies. SEGPRES, after having a strong technical approach in the previous term, adopted a more political
coordination role during Bachelet’s presidency, and thus open government and OGD initiatives did not enjoy the same extent of institutional backing as was prevalent during Pinera’s term (PSP-03; PSP-10). MDGU appointed the executive director of FCI to lead the Unit, who brought with him other CSO advocates. They ensured, at least initially, OGD’s continued role in MDGU’s policies.

However, the change in Government uncovered the weaknesses of the existing institutional framework (PSP-10), which is analysed in detail in this chapter. Existing collaboration practices remained solely at an informal level, and the change in government triggered the termination of many connections between MDGU and sectoral agencies (PSP-10; PSP-12). With the absence of an adequate institutional framework in the form of a clear set of rules, practices, resources and incentives, OGD was exposed to political volatility. While existing transparency regulation did not include the publication of datasets in open formats, the Presidential Directive was flexible and unclear enough to impede its enforcement among public agencies (PSP-10). Thus, the programme mainly relied on informal oral arrangements between MDGU and sectoral agencies, all of which were lost with the new presidential term (PSP-03; PSP-09; PSP-10).

“The most significant problem is the change in government from Piñera to Bachelet, because there was not only a change of Presidents but a whole new political coalition taking office. Thus, many publishers working at the government left from March 2014. In 2015, we were still approaching these agencies to retake collaboration. Those agencies used to publish often, but the people in charge of this process left the government and they did not transfer these responsibilities and commitments to the new government. If you check the portal, you will find a huge number of institutions that have not updated their datasets from February 2014 onwards.” – Former Public Sector Practitioner in ICTs (PSP-09)

The fragility of the institutional framework for OGD meant that agencies did not publish or update their datasets for over a year, and previous efforts to disseminate OGD in sectoral offices did not continue (PSP-03; PSP-10). To address this problem, MDGU conducted – in their own words – an “evangelisation” effort across sectoral offices to promote the values of OGD and related benefits. It was hoped that this would facilitate the adoption of OGD and formal cooperation between MDGU and sectoral offices, in
The development of OGD in Chile: a historical perspective

the form of workshops and seminars (PSP-09). These events aimed to disseminate the value of data disclosure and how datasets could be used in practice for public service delivery (PSP-09).

6.2.2.2. Bilateral agreements to commit public agencies to OGD

To uphold agencies’ participation in OGD, MDGU attempted to develop a more collaborative approach by promoting publishing agreements with each agency to enhance the initiative and establish formal commitments and publication procedures. MDGU offered technical assistance to implement the platform and curate datasets, while agencies assumed a formal commitment to disclose relevant data (PSP-08; PSP-09; PSP-10; PSO-11). Interviewees directly involved in OGD perceive that this approach penetrated existing institutional cultures more deeply by adapting these agreements to existing sectoral resources and capabilities: before signing the agreements, there were long negotiation periods where agencies clarified their resources and technical procedures, as well as legally determining which data could be disclosed (PSP-10). By signing bilateral agreements, sectoral offices may have had higher levels of OGD appropriateness, and created specific sectoral incentives to carry out this initiative. However, interviewees admit that during this period dominant rationales continued to centre on the benefits of OGD with regard to a more efficient operation of transparency policies:

“You can talk a lot about OGD but how you implement it in practice is really difficult. One example: once we talked to agency X since they manage lots of information about local councils. We asked them to move their information from one platform to the other one [OGD portal]. In the end, nothing happened. Indeed, we used to have several meetings and discussed about this with the executive directors, who gave positive feedback. Then they decided to sign a collaboration agreement, but we made them less rigorous since we knew they would not publish anyway. This was a collaborative process. We offered them a visualisation platform to communicate their data to citizens. However, the problem is that this was never a priority for public agencies; they mostly did not want to be closer to citizens. They never saw the value that OGD would create.” – Former Public Sector Practitioner in ICTs (PSP-10)
Looking at reducing these tensions and facilitating collaboration activities, MDGU organised workshops and seminars for officials responsible for transparency and OGD to demonstrate the social value of publishing relevant datasets as well as to align sectoral objectives in a collective policy (PSP-09; PSP-10). These meetings aimed at explaining the social value that could be unlocked by data disclosure as well as improving the understanding of data usage across Chilean government, thus encouraging the participation of public agencies in OGD. There were only two of these events, both during 2014, where CSOs and data journalists introduced the value of openness logics to OGD and transparency practitioners:

“We invited all publishers from sectoral agencies to dissemination and evangelisation activities, which had never been done during the previous government. We organised two types of events: one with publishers to talk about OGD and its benefits; and one with OGD users to help them realise the relevance of their own work. Thus, our purpose was to make them aware of the social relevance of disclosing OGD. We are planning to arrange training and other activities for those who lead sectoral OGD collaboration to enhance a publisher network and more sophisticated data analysis.” – Former Public Sector Practitioner in ICTs (PSP-09)

What seemed to be a promising public policy approach was suddenly endangered by political changes at SEGPRES and MDGU. The Executive Director of MDGU, a renowned promoter of OGD in Chile and Latin America, was made redundant due to his political disagreement with ministries and political leaders. Interviewees highlight that this occurred given the lack of political support for the OGD agenda from the Minister of SEGPRES and her political team (PSP-03; PSP-10; IN-02). At the beginning of Bachelet’s term, SEGPRES became a key political coordinator to lead an agenda which aimed at reforming tax, electoral, educational, and pension systems. Thus, digital and modernisation agendas were significantly relegated at SEGPRES, causing tensions between a former activist and a minister with high political aspirations (JT-03; PSP-12; CS-01; PSO-07). These tensions emerged in the limited political backing and economic resources available to MDGU, which negatively affected the prioritisation and deepening of its projects, including the OGD initiative. Interviewees agree that whilst during Bachelet’s term MDGU experienced an unusual political stability for digital
government institutions by maintaining key operational roles, the Unit lost the strong political connection with the Presidency. This lack of political backing unveiled the institutional constraints that MDGU showed during Bachelet’s term. Additionally, the administration at SEGPRES during this period attempted to minimise the prestige obtained by former members of MDGU by disempowering remaining operational roles and weakening successful projects such as “ChileAtiende” and OGD (PSP-10; PSO-02; IN-02). While MDGU adopted a more comprehensive approach to engage sectoral agencies in OGD early on in Bachelet’s term, twists in political aspirations inhibited progression on more political agendas for OGD. The impact of this changing political environment at MDGU was that the bilateral agreement approach did not produce results during the period of study, as no agency signed and effectively implemented the agreements that were under discussion:

“Yes, MDGU lost political relevance because of the change of civil servants. We lost our vertical credibility because overall all managerial levels changed, especially where we had political influence. So all this engagement work was lost. For the Minister and the Deputy Minister of that time MDGU was not relevant for their agendas at all. I think that during the first 100 days the government had a list of commitments to fulfil, most of them legal changes that required political coordination from SEGPRES. Thus, the focus of the Ministry’s managerial level was fully on that agenda.” – Former Public Sector Practitioner in ICTs (PSP-10)

6.2.2.3. The role of the Council for Transparency and FCI

The Council for Transparency is the independent body which monitors the transparency legal framework and fosters further information disclosure and good practices in transparency and accountability. Created in 2009 as part of the transparency legal framework, it has an independent budget and remains politically neutral. The Council is also legally empowered to promulgate national directives with legal enforcement in matters that affect transparency and accountability in the country, such as OGD.

Although frequently releasing open datasets from 2011 onwards, the Council had not been involved in OGD during Piñera’s term (PSP-04; PSP-05). Interviewees agree that the Council doubted whether they should fully lead this process because of a potential conflict of interest as they would interfere in Central Government policies while at the
same time monitoring existing transparency regulation (IN-02). The Council is mandated by law to intervene in cases when the transparency framework is violated, protecting civil society in cases where agencies refuse to disclose public information (CNC 2008b). Hence, the Council has traditionally maintained itself neutral and independent from the Central Government. However, the Council adopted a more active role in 2014 when they anticipated the political benefits from enhancing their transparency agenda through OGD and the OGP, and the international exposure to manifest the Council’s agenda:

“Do you know why we joined this project [the OGP membership and Action plans]? Basically, we feared that the open government agenda from the Central Government would help to give political visibility to the transparency agenda in the region. We would have had strong competition to promote active transparency. Indeed, the world, donors and international cooperation would go in that direction, so more complex issues such as the institutionalisation of these practices, accountability and legal frameworks, which require political agreements, would remain immobilised. Thus, we realised that there was a risk here, and we could lose leadership. So, we decided to integrate the OGP movement in Chile, in order to produce added value for Chilean institutions. This was also a great opportunity to commit the Government to implement open government. Although we are an independent and autonomous body, if we were able to incorporate some of our aims within the Chilean OGP agenda, we would commit the Government to implement transparency-related policies with international assessment. I think this approach was spot on.” – Public Sector Official in Transparency (PSO-08)

Hence, the Council joined the OGP to expand its agenda and to enhance its political legitimacy (PSO-08; PSP-04; PSP-05). Although not directly including OGD in OGP action plans, this movement enabled the Council to also have a stronger voice in OGD. By having the legal power to promulgate an OGD Directive to enforce the disclosure of public data through OGD by agencies from the Central Government, the Council avoided political disagreements with the Executive branch considering the political and operational challenges of fully forcing public agencies to release OGD (PSO-08; PSP-05). Instead, it adopted a more nuanced approach by organising hackathons and partnering with MDGU to enhance the OGD agenda (PSP-09). Interviewees admit that the role of
the Council has been of relevance in promoting political benefits of OGD rather than solely a bureaucratic approach to the initiative (PSP-02; PSP-09). This logic represents the core values and role that the Council has adopted over the last years:

“OGD is actually not a policy of the Council, which has other priorities such as passive or active transparency procedures. For them, OGD is a concern, they are clear about its benefits, but there are other matters of urgency that are more relevant to their core business. However, I don’t know anyone else who understands this topic that well. This should not be a secondary topic, because the value for the Council is that transparency is going in that direction... that OGD is the next step, that transparency as it works nowadays will require an upgrade and OGD is somehow a transparency 2.0.” – Consultant in e-Government (IN-02)

As part of this rationale, the Council adopted a dominant role in the 2nd Chilean action plan for OGP, which was developed at the end of Piñera’s term and needed to be confirmed by Bachelet’s office. However, considering the political cost that the change in government produced, this action plan was disregarded by the incoming officers at MDGU for political reasons, who thus decided to develop a new action plan (PSO-02; PSP-09; IN-02; CS-01; PSP-03). Nonetheless, leaders at MDGU anticipated that the Council had a comprehensive short-term plan, and decided to include several of those initiatives in the OGD plan (IN-02; CS-01; CS-06):

“The Council has a long-term agenda. Originally, incoming MDGU discarded an already drafted action plan from the previous administration. You can see how vulnerable things can be. Then, when Chile had to present its second action plan to the OGP, MDGU used some of the Council’s projects and added them to their action plan. Those were activities that were on the Council’s agenda. So, basically MDGU ‘copied and pasted’ those commitments. There was no creativity. Now, I can perceive that they just took office and had to submit the plan soon, but there was a draft from the previous government that was totally discarded.” – Consultant in e-Government (IN-02)

Although the Council took notice of this practice, they decided that it was nonetheless a great opportunity to give more visibility to their own agenda and enhance their role in transparency-related policies within the region. For example, the Council led the limited
legal incorporation of open formats into new legislation for transparency and accountability (IN-02; PSP-08; PSP-09). When the law 20.730 on the regulation of lobbying was promulgated in 2014 (CNC 2014c; CNC 2014b), the Council pushed to incorporate the disclosure of lobby data in machine-readable and open formats as a standard. This approach was reinforced when, after a new wave of corruption cases, President Bachelet enacted an internal regulation on the declaration of interests and assets by public officials (Bachelet 2015). Law 20.730 did then require the use of open data formats to make this information fully available online. Besides, a new governmental commission for transparency and integrity recommended the use of open data as a means to increase data availability (an approach not legally formalised during the period of study) (CA, 2015, p.48).

Compared to the role of the Council, civil society remained relatively inactive. Only FCI continued to promote OGD and to push the Central Government to release more and higher quality datasets. With the new government taking office in March 2014, FCI’s executive director was appointed to a strategic position at MDGU. Interviewees see here that the new government wanted to enhance the Unit by forging closer links to participation and collaboration processes with the civil society, but also to co-opt the discourse from FCI, which may have launched accountability campaigns (IN-02; RA-03; PSP-04; RA-01; CS-06; CS-07). With the rise of new corruption cases, FCI adopted a more active role in the transparency agenda by suing politicians and businessmen involved in those cases (CS-02; CS-06; RA-03). While FCI continued to use data-driven apps to promote transparency and accountability, they departed from their previous active advocacy role for OGD, which then became mostly government-driven. With FCI being the only civil society member fully involved in the development of OGD, CSOs would play a minor role in the OGD agenda in the years ahead (RE-03).

6.2.2.4. Institutional trajectory of OGD in the period 2014-2015

Evidence from the period 2014 to 2015 shows the institutional restrictions which impeded the full progression of the OGD initiative in Chile. Like the previous presidential term, the agenda for OGD had an emphasis on symbolic rather than material institutions, leading to weak institutionalisation of OGD. The main change between Bachelet’s administration and President Piñera’s term is that President Bachelet brought
The development of OGD in Chile: a historical perspective

different rationales, incentives and resources to carry out OGD and other public policies. Unlike Piñera’s term, President Bachelet provided less political support to the digital government agenda, but it was still sufficient to maintain MDGU, some key practitioners, and to continue to carry out digital government initiatives.

However, the limited political support reinforced existing institutional restrictions and impeded the full progression of an OGD agenda in Chile. With the Presidential Directive 005/2012 having expired, OGD did not have any material regulatory form, and MDGU did not define an OGD policy that could have compensated for the lack of structural institutions to foster data disclosure. Albeit MDGU’s attempt to deepen rationales on bureaucracy and to reduce transparency costs, the lack of economic and political resources at MDGU made agencies engage with OGD according to their own institutional strengths, incentives and resources. Consequently, the initiative mostly relied on sectoral rather than centralised capacities and resources, which were insufficient to institutionalise the initiative. In the absence of regulatory institutions, which embed OGD in existing regulation (except for the regulation on lobbying), and material long-term strategies to incorporate OGD in public policy, the initiative did not have sufficient institutional foundations to avoid the influence and vulnerability of changes in dominant political ideologies and prioritisation of public policies. Although Bachelet’s administration did not provide similar political incentives for OGD as Piñera’s administration, MDGU continued to gain political capital from advances observed during the previous term. Other organisations, such as the Council for Transparency or FCI, hesitated to take a more active role in this agenda. While the Council avoided political disagreements with the Central Government and MDGU, FCI switched to a more political agenda and partially relegated OGD from its core advocacy activities. During the study period, this broader institutional framework inhibited further improvements of the OGD initiative and its full institutionalisation in the short term, hence foregoing any dividends that may have been derived in the long term.
6.3. Institutional analysis of OGD

6.3.1. Institutional features of OGD

The institutional analysis developed throughout the preceding section shows that OGD in Chile has been institutionalised to a limited extent to date. Being the intersection of three broader institutional trajectories – digital government, transparency, and data governance, each with more than 20 years of foundations – OGD still remains fragile and weakly-institutionalised, which in practice is reflected in a stronger emphasis on limited data disclosure rather than delivering positive outcomes from OGD in Chile’s social, political or economic systems.

During the period of analysis of OGD in Chile – from 2011 to 2015 – the initiative shows diverse institutional progressions and reversals and received varying levels of political support, resources and incentives, all of which have had an impact on the level of adoption and embeddedness of OGD in Chile to date. However, a trend towards institutionalisation can be observed, in the form of a limited material regulatory framework, irregular data disclosure practices, a general culture of obliged transparency, and a continuous working platform across the years. In addition, there has been an emphasis on data disclosure, rather than value creation and the re-use of datasets by the Government and civil society, all of which led to a limited data-centric OGD initiative in Chile. To date, the limited institutionalisation of OGD is also observed in its permeability to politics and ideological shifts, the lack of value of OGD perceived by public officials both inside and outside MDGU, and a lack of legal instruments to enhance the publication of datasets.

The argument of this chapter is that the foundational trajectories of OGD, having progressed for more than 20 years, have a significant impact on the way OGD has been developed. This influence is reflected in the extent to which OGD inherits institutional features from these broader trajectories, which have likely determined the trajectory and degree of institutionalisation of OGD to date. An extended analysis of OGD’s institutional features according to these three trajectories can be seen in Table 6.2, with further discussion below.
Table 6.2: Influence of digital government, transparency, and data governance institutional features on OGD

<table>
<thead>
<tr>
<th>Institutional components</th>
<th>Open Government Data</th>
<th>Level of Institutionalisation (Symbolic vs Material)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital Government</td>
<td>Transparency</td>
</tr>
<tr>
<td>Regulatory Institutions</td>
<td>The limited regulatory bodies for digital government were reflected in OGD in the absence of a comprehensive regulatory framework for data disclosure, and the short-termism of the Directive 005/2012, making the initiative vulnerable to the change of political prioritisation of digital government from President Piñera to President Bachelet.</td>
<td>Inexistence of data governance regulatory frameworks is reflected in the limited regulatory strength of the OGD initiative and the Directive in data governance aspects, and the symbolic introduction of minimum standards and monitoring of data quality in OGD.</td>
</tr>
<tr>
<td>Normative Institutions</td>
<td>Emphasis on short-term practices and strategies for digital government is reflected in the limited strategic planning of OGD in MDGU as well as an emphasis on sectoral efforts (resources and skills) rather than cross-sectoral practices for data disclosure. OGD practices affected by shifts in political leadership/ideologies.</td>
<td>The symbolism and lack of comprehensive practices and objectives for transparency reflected in the shared general acceptance of OGD in sectoral agencies, and the introduction of OGD as part of a broader transparency-related agenda.</td>
</tr>
<tr>
<td>Cultural-cognitive Institutions</td>
<td>Like the digital government trajectory, OGD inherits a general underestimation of the political complexities of data-related digital technologies, and the lack of comprehensive institutional frameworks to frame it. OGD is also governed by an aspiration of projecting integrity,</td>
<td>OGD replicates both dominant rationales for transparency from this trajectory: while top political elite observe OGD as a tool to deepen transparency policies and to promote national integrity, sectoral agencies see OGD as an extra workload that relies on their own capacities and resources. CSOs and</td>
</tr>
</tbody>
</table>

...
The influence of historical political institutions on OGD

<table>
<thead>
<tr>
<th>Resources</th>
<th>Council for Transparency offer a nuanced view on political and bureaucratic impact of OGD.</th>
<th>implement the initiative.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGD replicates the presence of political and economic resources to support a short-term initiative that promotes efficiency, modernity and integrity. Resources are linked to changes in incentives and rationales across administrations. Political and economic resources not available for comprehensive OGD strategies.</td>
<td>Similar to the pre-2011 features, OGD replicates the emphasis on political resources to promote the initiative but has limited economic resources for its implementation, relying on limited sectoral economic resources to curate and publish OGD.</td>
<td>The low levels of political and economic resources observed in the historical data governance trajectory are reproduced in OGD in the absence of central political support and economic funding to emphasise data governance practices in OGD.</td>
</tr>
<tr>
<td>Overall, OGD shows similar low levels of political and economic resources as the three historical trajectories that impede an adequate OGD implementation. Emphasis on political resources to promote the political benefits of the initiative rather than economic resources for its deployment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Incentives | The emphasis on implementing digital government to project an external political image is replicated in OGD in the dominant incentive to boost Chile's political reputation of integrity, modernity and efficiency through OGD. Efforts concentrated on short-term agendas, similar to this trajectory. | Similar incentives to the pre-2011 analysis can be observed in OGD with regard to the transparency trajectory. OGD is supported as an initiative to project an image of transparency and integrity, while sectoral agencies do not anticipate benefits from OGD. External bodies promote OGD from a democratic perspective. | OGD inherits similar pre-2011 rationales on data governance, in the absence of incentives and awareness to carry out a comprehensive set of data management practices to implement OGD. |
|-----------|-----------------------------------------------------------------------------------------------|--------------------------|
| Overall, and like the pre-2011 institutional analysis, incentives for OGD are linked to the political image of transparency and efficiency, but sufficient to implement a basic initiative. Incentives for OGD with emphasis on short-term political benefits rather than long-term social outcomes. |

Source: Own elaboration

The analysis above suggests that OGD has been influenced by three institutional trajectories in the set of regulations, practices, rationales, incentives and resources that framed actions of the Chilean government and other interested stakeholders in developing OGD. While these three trajectories are not fully reflected in the OGD initiative, they did exert a strong influence on its institutional foundations, and help to explain its limited institutionalisation to date.

The transparency trajectory has influenced OGD by replicating similar rationales and incentives to those observed during and after the implementation of the transparency and access to information legal framework in 2008. The transparency framework
introduced strong regulatory and normative institutions in the country, which serve as
the foundation for future transparency-related initiatives such as OGD. It has also helped
to shape a strong and widespread culture of obliged transparency in Chile since
transparency tasks were perceived as extra workload by sectoral agencies. The cultural
perspective of obliged transparency observed during the pre-2011 trajectories has
influenced practitioners and officials to award a similar rationale to OGD: MDGU widely
promoted the initiative as an effective way to reduce the workload of passive
transparency, but without sufficient funding and only limited technical support, sectoral
agencies saw OGD as an extra workload with no further sectoral benefits. Indeed,
agencies perceived that they had to assume the technical and political costs of data
disclosure, while sectoral dividends remained unclear. Consequently, the publication of
relevant datasets in machine-readable and open formats has been limited to minimum-
effort logic, while the agencies’ emphasis has focused on minimum compliance with
regulated active and passive transparency. Additionally, CSOs and other transparency-
related institutions have not had sufficient incentives and political resources to have an
active role in OGD policy making. These organisations have been limited mainly to
advocacy tasks and the introduction of OGD in peripheral legal initiatives rather than
partnering with MDGU to develop more citizen-centric OGD initiatives. As a result, OGD
mainly relies on efforts from MDGU as the leading unit.

The data governance trajectory has influenced OGD by providing a limited data
management policy and by disregarding the relevance of appropriate technical
procedures to anonymise, exchange, interoperate and disclose datasets. The historically
limited importance awarded to strategies and practices in public data management by
the Central Government and MDGU, as well as the level of operational sufficiency
reached in the limited management of public data led to a disregarding of crucial data
governance practices in the development of OGD in Chile. In the absence of cross-
sectoral regulation and practices for data governance, data practitioners have mainly
operated under dominant rationales of resistance to misuse of data, and the cost of
anonymisation and propriety rights in both active and passive data disclosure processes.
Besides, past initiatives in data management such as interoperability frameworks were
not implemented including cross-sectoral regulatory and normative institutions –
initiatives which have only been useful for a limited number of public offices and for public service delivery purposes. The absence of a cross-sectoral definition of data standards has inhibited the scaling of OGD for further data reuse in policy decision making but, similar to pre-2011 trajectories, has provided a level of operational sufficiency.

Finally, the digital government trajectory has influenced the underpinning institutional framework for introducing OGD and other ICT-based initiatives in the country; as well as the rationales, incentives and resources to implement these initiatives. The institutional development of the digital government trajectory shows an emphasis on short-term and tactical strategies, irregular political support and limited economic resources to carry out digital initiatives in the public sector. The historical progression of ICTs in the public sector shows that, while governments had tactical visions and implemented renowned ICT projects, the absence of agreed strategic long-term agendas allowed the exploitation of technologies by governing political ideologies, which have been strongly linked to direct presidential support and political prioritisation. The high dependency of digital government institutions on the President’s support, as well as the increasing interest of the political elite in obtaining political credentials from ICT-related initiatives meant that OGD followed similar paths. Digital government features are reflected in OGD in the limited strategic approach adopted to facilitate its quick take off, as well as the limited empowerment and economic resources held by MDGU to carry out sectoral data disclosure processes. The institutional framework for digital government has constrained rather than enhanced OGD development in Chile by focusing on short-term political rewards, which affected the quality, spread and relevance of sectoral OGD publication.

Evidence also shows that OGD’s underpinning ideologies have moved from a strong political interest in obtaining political benefits but disregarding critical operational elements – such as engagement and training activities – towards a more collaborative approach between MDGU and sectoral offices by looking at signing agreements to compensate for the lack of legal enforcement. Similar to the digital government trajectory, OGD development has also largely been dependent on the direct political support of the President, as the initiative has been driven by the emphasis and political
backing awarded by the top executive level, which determines the level of legitimacy
MDGU has had to carry out this and other digital government related initiatives. In the
absence of formal institutional strengths to carry out the initiative, other institutions
such as FCI or the Council for Transparency have provided a nuanced approach between
OGD bureaucratic and social benefits.

6.3.2. Cross-trajectory path dependency of OGD

Prior to analysing OGD, an extensive institutional analysis of the three dominant
institutional trajectories intersecting in OGD was conducted at the end of Chapter 5,
delivering four cross-trajectory path dependencies:

a) Institutional path of shallow institutionalisation and politicisation of ICT-based
   initiatives;

b) Institutional path of image projection through ICTs;

c) Institutional path of symbolic rather than material institutions, and;

d) Institutional path of change caused by contingencies rather than long-term political
   vision.

The previous analysis of the features of OGD which have been influenced by the three
institutional trajectories also reflects the presence of these paths in OGD, in the form of
facilitating or constraining regulatory, normative, and cultural-cognitive institutions, as
well as available resources and incentives, all of which determine the level of
institutionalisation accomplished by OGD during the period 2011-2015. In practice, we
observe a strong path dependency on OGD, in particular through the four
aforementioned paths.

6.3.2.1. OGD follows an institutional path of shallow institutionalisation and
   politicisation of ICT-based practices

Evidence from the three trajectories shows an emphasis on politicised and weakly-
institutionalised trajectories reflected in OGD through a weak regulatory and normative
institutional framework, the strong dependency on direct Presidential support and the
programmatic prioritisation towards obtaining political rewards.

As observed in the pre-2011 institutional analysis, the three trajectories show a limited
institutionalisation in the form of restricted regulatory frameworks and an emphasis on
short-term and non-aligned cross-sectoral strategies and rationales around ICT
The influence of historical political institutions on OGD

interventions. The lack of incentives and awareness of stronger institutional frameworks observed in the pre-2011 institutions meant that OGD did not have a comprehensive regulatory and normative institutional framework that could enact a robust OGD initiative. Apart from the Presidential Directive 005/2012, there is no regulatory framework to standardise sectoral data disclosure processes through OGD, to empower MDGU to deal with sectoral agencies or to provide resources to carry out the initiative. One can observe neither a strong cross-sectoral public policy for OGD, nor aligned objectives to carry out this initiative. Instead, there is an emphasis on relying on sectoral efforts and resources to curate, publish and maintain public datasets in the OGD portal. This limited institutional framework is reflected in how Chile has performed in the editions of the Open Data Barometer during the period of study: from 2014 to 2015 Chile dropped 15 positions in the ranking, mainly due to the limited government policies and availability of datasets, all leading to minimum OGD impact (Gonzalez-Zapata 2016; World Wide Web Foundation 2016).

Other institutional advances made after the establishment of the transparency framework, such as the subscription to the OGP; were characterised by a lack of resources and the political instrumentalisation of the agenda by the President to align Chile to international standards. However, political support and economic resources to implement a disruptive agenda and to materially embed it into long-term institutions were not provided. Instead, the OGP only enabled peripheral advances instead of transformative initiatives, i.e. the modernisation of public services was emphasised rather than co-creation or participatory public service delivery.

The three institutional trajectories analysed before 2011 also show the predominant role of Chilean Presidents in shaping the (non)institutionalisation of the trajectories by awarding or limiting political and economic resources that have the potential to mobilise institutions towards long-term strategic interventions. OGD has been significantly shaped by the dominant incentives and cultural-cognitive rationales of Presidents, given their dominant role in shaping the trajectories. The meanings and emphasis awarded by different Presidents in each of their terms are critical for defining the OGD institutional trajectory by providing or limiting political support and legitimacy for its adoption and appropriateness. While President Piñera provided political support to implement OGD
as he anticipated that Chile may assume a leading position at regional and global levels, President Bachelet partially relegated the digital government agenda including OGD policies. Interviewees emphasised that the politicisation of the initiative reflected in the quick take-off of OGD in Chile contrasts with the limited support for the progression of this and the OG agenda over the years (CS-06; PSP-09; RA-03). However, this political support neither empowered MDGU nor did it provide sufficient economic resources to deepen OGD practices or to create a comprehensive cross-sectoral initiative. This policy approach left ICT initiatives relatively instrumental to dominant political systems and vulnerable to changes in political administrations. The politicisation of OGD is manifested in the absence of key policy elements such as the alignment of incentives and objectives, the provision of sufficient economic and political resources, and the guarantee that initiatives will have sufficient institutional strength to resist dynamic and changing political environments.

Finally, the three trajectories show prevalence of politicising initiatives, in order to obtain political dividends in the form of a favourable reputation, positive e-Government ranking results, or regional political leadership and reputation, while disregarding the provision of strong material foundations to these initiatives to ensure their long-term success. The dominant rationale of politicising ICT-related initiatives meant that OGD was developed with the purpose of obtaining political dividends rather than long-term outcomes. Similar to pre-2011 institutional paths, OGD has been designed and implemented with an emphasis on obtaining political rewards for those leading or politically supporting the initiative, while disregarding structural foundations and resources that would allow for sustained dividends to be derived from data disclosure. There is a pattern of implementing OGD to demonstrate Chile’s regional political leadership to support the agenda, which contrasts with the limited efforts made to design a comprehensive initiative that delivers positive social and democratic outcomes.

6.3.2.2. OGD follows an institutional path of demonstrating modernity, efficiency and stability through ICTs

The projection of a positive image of modernity and efficiency through prioritising ICT-related initiatives has been a key incentive for the progression of the three institutional trajectories. The three trajectories observe a general emphasis on using ICTs to project
an image of modernity, efficiency and integrity to both the domestic political constituency as well as international organisations and other external audiences. OGD replicates both paths from this pre-2011 institutional progression.

At domestic level, the institutional trajectories observe a predominance of using ICTs to promote an image of modernity and efficiency to local audiences as a way to reduce internal political tensions and crises caused by corruption cases. ICTs in the form of transparency websites, e-procurement, e-tax systems, and other e-Government solutions have been useful in designing quickly deployable and non-expensive solutions to counterattack political crisis, with incentives focused on short-term outcomes and the conveyance of modernisation, integrity and stability externally. The increasing returns obtained in pre-2011 trajectories by the political elite – e.g. the political dividends obtained from demonstrating the level of modernity and efficiency of the country through ICTs – meant that OGD followed a similar path. OGD shows an emphasis on addressing domestic political constituencies by widely advertising OGD as an effort of the Government to deepen the transparency agenda, and by promoting the initiative in order to convey an image of openness, modernity and more efficient public services by disclosing public data. This emphasis is reflected in the prioritisation of political objectives for OGD, i.e. the political image projected through the quantity of released datasets was prioritised over more citizen-oriented objectives related to the quality of OGD and its impact on democracy, transparency or accountability. This rationale has hampered the level of institutionalisation of OGD in Chile achieved to date. In general, interviewees agree that the Government and MDGU looked at obtaining significant political reward from an initiative that did not receive sufficient institutional foundations and resources, while other values that enhanced Piñera’s existing political narrative of a new way of governance based on efficiency and business-style managerial practices were widely promoted.

This institutional path of image projection is also reflected at international level. Prior institutional trajectories emphasised a projection of efficiency, leadership, integrity and trust to provide confidence to external audiences such as international organisations, partnerships and foreign investors. With international organisations being a target audience of the Chilean government to place the country in the international arena,
Incentives and resources have been allocated to prioritise political dividends that present Chile as a modern and democratic country. Evidence suggests that OGD follows a similar institutional path as administrations have widely promoted OGD as part of an agenda of openness, modernity and leadership to achieve international standards and to boost regional leadership of the President in areas of direct relevance for Piñera’s business-oriented rationales, who in return provided direct political support to develop the initiative. Interviewees at MDGU agree on the political benefits obtained by OGD in boosting Chile’s reputation abroad. This incentive fostered a quick-win approach, i.e. a number of datasets were disclosed quickly after Directive 005/2012 was enacted and Chile was the first regional country that implemented OGD. However, it distracted from the incorporation of stronger, material institutions to consolidate OGD such as a long-term strategic policy approach to deliver positive broader outcomes.

6.3.2.3. OGD follows an institutional path of symbolic rather than material institutions

The institutional progression of the three trajectories shows an emphasis on symbolism and short-termism, instead of a materialisation of these trajectories into comprehensive and long-term institutions. Efforts have systematically been focused on incorporating symbolic institutions such as values in regulation, limited cross-sectoral practices and objectives, and limited economic resources and incentives aimed at obtaining political reward rather than broader social outcomes. This institutional approach led to an emphasis on operational rather than strategic institutional development of OGD, and an underestimation of the politics of ICTs in favour of deploying faster initiatives.

Institutional frameworks have often lacked sufficient material regulatory and normative institutions such as e-Government regulation, long-term and strategic digital policies, and aligned objectives and rationales that expand benefits to other areas. Initiatives received limited economic resources and political support, which were merely sufficient to operationalise these initiatives in the short term. Albeit their limitations, these symbolic frameworks have been sufficient to fulfil the dominant political objectives governing these trajectories, such as national and international prestige, and the control of political crisis in local constituencies. Similar to this institutional path, OGD shows a predominance of short-term institutional development to speed up its take off, instead
of policies which clearly define responsibilities, roles, funding and, most importantly, long-term objectives regarding how and why public datasets should be opened up. Early efforts were concentrated on building a functional platform with as many datasets as possible within a short period of time. However, there was a lack of further policies to ensure that datasets were of high quality and social relevance, and that they were used effectively as well as to expand dominant rationales beyond the argument of reducing bureaucracy to include higher economic growth, innovation, and the expansion of democratic practices, among others. This weak framework was reinforced by an official Directive which did not address any of these key elements and only obliged public agencies to release a minimum number of datasets within two months, an approach which constrained the appropriateness of OGD across sectoral agencies.

Institutional trajectories also show a preponderant symbolism in ICT initiatives by underestimating the politics of digital interventions. Often, the limited institutional frameworks for initiatives comprised in the three trajectories are based on an inadequate understanding of the political complexities of ICTs, as several initiatives show a significant presence of technological determinism. The limited awareness of the political elite of how to implement ICT-related initiatives also meant that the politics of public data in OGD has not been adequately addressed. Governments (along with other stakeholders) have explicitly awarded OGD the capacity to improve public sector efficiency and transparency but mostly focused on data disclosure. Indeed, a strong presence of technological determinism can be observed in OGD, e.g. the Government has systematically disregarded a long-term institutional intervention including the design of a comprehensive policy framework that would have fostered high-quality and relevant datasets, and the development of collaborative practices with local and international stakeholders. Through OGD, the Government has promoted a new way of governance, but without addressing the structural and institutional constraints that obstruct these benefits. The technological determinism is also present in the expectations of MDGU and other stakeholders in the public sector that public data disclosure itself would unlock OGD benefits, without considering a socio-technical approach for data disclosure: there are no major policies in place to deal with significant constraints of the politics of data disclosure, such as limited data management practices,
Institutional analysis of OGD

and the reluctance of civil servants and public agencies to disclose sensitive datasets, among others. This rationale has hampered the use of ICTs for deeper, transformational purposes, yet again weakening OGD institutionalisation.

6.3.2.4. OGD follows an Institutional path of change caused by contingencies rather than a long-term political vision

The progression of the three institutional trajectories shows an emphasis on institutional change triggered by contingencies rather than long-term incentives and political rationales. The three trajectories analysed in this research have mostly progressed as part of an institutional reaction to political issues, such as the workload of the transparency agenda, corruption cases, and expectations of obtaining short-term political dividends; rather than being led by a long-term political vision that integrates different dimensions of impact like economic, bureaucratic, political or technological advantages (Gonzalez-Zapata and Heeks 2016). This path becomes evident in the introduction of change to address the negative externalities of past initiatives, and in the technocratic deployment model that disregarded long-term and broader benefits from these initiatives in order to speed up their deployment.

The progression of the three trajectories shows that institutional change has occurred to challenge and address the negative externalities of past contingencies, in particular with an institutional preference for stability over introduction of disruptive innovations. Although institutions need to adapt to new conditions, there is an inclination to avoid changes and preserve stable political conditions. Either in the form of crisis (such as corruption cases) or as the outcome of limited implementation processes (such as the transparency agenda), change is likely to be introduced to control these negative outcomes to avoid further disruptions and maintain stability. The foundations of both digital government and transparency trajectories were linked to political contingencies that opened up a policy window. The political elite has successively addressed political contingencies considering the cost-benefit relation of their interventions. In several cases observed along the trajectories, institutional progression has only been sufficient to maximise the political benefits versus the costs the political elite have been willing to assume. These past experiences of addressing contingencies at a limited but operational level has led to OGD being developed in a similar way. Although crisis has not been a
major source of institutional change for OGD, the negative externalities associated with
the previous implementation of transparency initiatives made practitioners and officials
at MDGU promote OGD as part of an institutional response to the workloads of passive
transparency requests. However, the absence of crisis may also explain why different
governments have not adopted a more radical approach towards the development of a
comprehensive OGD framework: major political will and resources may only be available
if a political contingency pushed political elites to take such an approach.

The absence of a long-term political vision that favours solutions of political
contingencies is also observed in the lack of democratic or social benefits from OGD
beyond its technocratic implementation. The three trajectories show limited
institutional strength that restricts long-term broader benefits, but which is useful to
achieve basic, operational outcomes. Except for the last stage of the transparency
agenda – which only adopted a different approach due to major political contingencies
– the three trajectories show limited institutionalisation to address corruption cases,
project an image of modernity, and to introduce minimum data standards. Systematic
institutional interventions that would have ensured the initiatives’ long-term success
were avoided.

OGD has followed a similar institutional path. Although the origins of OGD were not
rooted in crisis, institutional incentives and resources have primarily been focused on
developing a sufficient institutional framework that merely ensures the subsistence of
OGD. In two different periods, MDGU avoided other crucial aspects of an OGD initiative
which would have required larger institutional efforts such as developing a
comprehensive digital data management framework or using OGD to deepen
substantive democracy by deliberative and citizen-centric approaches. There has been
a tendency to only reach a sufficient operational level in OGD, adequate to fulfil initial
objectives by MDGU, with no further institutional incentives and resources to deliver
concrete impact. Stakeholders involved in the development of open government in Chile
highlight that different governments have deliberately avoided disruptive initiatives for
citizens’ participation and collaboration, falling in with the well-known “open washing”9

9 “Open washing” refers to the publication of low-quality and irrelevant open datasets online by public
agencies, while transmitting an image of openness and pursuing political credentials from it (Villum 2014).
practice. The open government agenda (including OGD) has been openly questioned by CSOs for jeopardising the extent to which governments are attempting to deliver transformative governance through OGD, promoting themselves as democratic and open nations. A few institutional entrepreneurs have attempted to challenge this institutional framework – so-called “evangelists” who bring new incentives and political resources to shape the institutional trajectory of OGD. However, in the absence of an institutional framework which supports these initiatives, entrepreneurs have failed to influence existing dominant institutional foundations and cultures given their limited political capital to shape high-level political decision-making to date.

6.3.3. Institutional feedback

The institutional progression of OGD under the paths and institutional features depicted above needs to take into account why institutions advanced in the ways described. The feedback produced by institutions helps explain the dynamics of positive returns that make OGD travel along the same paths. Under the dynamic of positive returns, incentives to continue under the same path increase given switching to previous alternatives is expensive and infeasible unless disruptions are critical enough to open up new policy windows.

Evidence suggests that the OGD initiative did not adequately progress towards a comprehensive OGD policy framework given the adopted model was sufficient for the purposes outlined by MDGU. Chile gained quick international reward for being the first regional country to implement an OGD initiative, as well as for having a dedicated directive with top political backing – similar to Obama’s directive in 2008. The political benefits obtained were sufficient to sustain this operational model for OGD, acting as positive feedback that reinforced the paths outlined above. Indeed, although present in cultural-cognitive rationales, democratic and social benefits from OGD were not part of the short-term strategy designed by MDGU. The approach undertaken by this Unit was sufficient to have a basic, operational OGD initiative, while deepening the existing institutional framework was disregarded (Gonzalez-Zapata 2016). However, during the period of OGD implementation, evidence suggests that Chile’s reputation for advancing digital government was fading away: the country observed how other regional countries continuously obtained positive assessments in international rankings given their
comprehensive approach to implement digital government policies – as has been the case for Uruguay and Colombia – while Chile dropped in these evaluations (Barros 2016; United Nations 2014). Outside the period of study, the current digital government status in Chile has led the Government to request a study by the OECD, in order to provide a new institutional framework (OECD 2016). However, no further political advances have been observed to date.

6.4. Chapter summary

The institutional analysis conducted in this chapter shows that OGD has a limited level of institutionalisation. After 20 years of laying foundations, and five years of development, OGD remains weakly institutionalised: a data-centric initiative that has lacked more material regulatory, normative and cultural-cognitive institutions, as well as sufficient economic and political resources and aligned citizen-centric and impact-oriented incentives.

The argument of this chapter is to determine to what extent the development of OGD to date has been influenced by existing political institutions. The institutional analysis concludes that OGD is significantly influenced by three institutional trajectories – digital government, transparency, and data governance – by inheriting similar institutional features and following similar institutional paths. As stated before, this chapter does not suggest that OGD is purely constituted by these three trajectories. Instead, the intersection of digital government, transparency and access to information, and data governance has created specific conditions under which initiatives – such as OGD – will likely follow similar institutional behaviour: the literature in institutional studies identifies this concept as path dependency.

Specifically, the analysis reveals that OGD shows a prevalence of symbolic, limited institutions that often offer operational subsistence but which do not attempt to trigger disruptive institutional transformation. Indeed, OGD has been promoted globally and in Chile as a tool to deepen transparency and participation, foster economic growth, or improve public service delivery. However, thanks to path dependency analysis, we can conclude that the institutional nature of OGD is embedded in existing, long-term institutional politics that constrain achievement of those objectives. OGD has inherited
similar institutional features to these trajectories, and follows similar institutional paths that constrain OGD’s extent and concrete impact. Indeed, OGD initiatives themselves carry, and likely reproduce, the institutional features they set out to transform.

We conclude through this analysis that in the absence of strong and comprehensive institutions OGD can merely be a tool for replicating existing institutional constraints. Considering the three institutional trajectories, Chile shows that institutional frameworks are often modified once they are used or when isolated projects require a broader, more comprehensive institutional framework, and not as part of long-term vision to anticipate future challenges. As a consequence, crisis has been a positive policy window for institutional change, although there has been a trend to avoid long-term commitments since they have the potential to divert attention from immediate, short-term dividends. Based on this premise, it is likely that OGD will not observe a full institutional adoption in the medium or long term, unless a crisis creates a new policy window to generate new incentives. Instead, institutional change is likely to occur gradually: OGD may challenge existing institutions on a gradual basis while being part of an internal development process. Hence, OGD should be designed, implemented and operated considering a gradual, iterative development approach that considers more than political expediency: OGD initiatives need to be citizen-centric and problem-oriented if benefits are to be delivered. For this task, the role of institutional entrepreneurs is crucial as they can bring new incentives and technical resources that challenge dominant cultural-cognitive rationales. Finally, they and other institutional stakeholders should also acknowledge that if change occurs gradually, their interventions need to carefully consider existing institutional politics to develop a contextualised, suitable OGD initiative.
Introduction

The second aspect of study is how organisational power may affect the development of OGD in Chile. Studying the role the exertion of power plays in the implementation and adoption of technological innovations is also a relevant aspect to understand how their institutionalisation process occurs. In particular the study of power dynamics has been the focus of attention of scholars in the information systems (IS) arena for several years. One suitable and widely used theoretical approach is the Circuits of Power (CP) from Clegg (1989) which is explained in detail in section 3.3, and which here is briefly reprised. CP observes power as a relational and dynamic object of study since it flows across agents and organisations, thus power needs to be exerted and not merely held. In this process, power acts as a stabilising tool for adoption and institutionalisation of IS: the more stable the power flows, the more institutionalised the IS are. A diagram of CP can be seen in Figure 3.4.

The operationalisation of CP requires studying how power flows across agents and organisations at three different levels:

1) *Episodic circuit*: it focuses on causal power, or the ways As make Bs do something they would not otherwise do. It studies power dynamics at agency level, thus including the role of power resistance in this relationship.

2) *Social integration circuit*: it focuses on dispositional power, or the rules of membership and meaning, that defines legitimation, authority and access to resources by agents.
3) **Systemic integration circuit:** it focuses on facilitative power, or power exercised through working practices and techniques of discipline.

Beside the circuits, CP also considers another two crucial elements to understand these power dynamics:

4) **Exogenous/Endogenous conditions:** change is introduced in the circuits by external or internal events that change the dynamics of power relations.

5) **Obligatory Passage Point (OPP):** constitutes the object of study. OPPs become institutionalised through systematic and effective power relations.

---

**Figure 3.4: Circuits of Power framework**  

These five aspects of study are integrated in the figure above to depict power dynamics across organisations and agents. In order to facilitate the understanding of these dynamics, CP can also be seen as relational components as follows: a) change in power dynamics is triggered by exogenous contingencies; b) based on existing rules of
meaning/membership (facilitative power) and techniques of discipline/production (disciplinary power), one or several agents exert power over another group to implement those changes (episodic power); c) power relations at agency level may experience resistance; d) power dynamics attempt to institutionalise the OPP; e) the adoption/institutionalisation of the OPP affects both rules of meaning/membership and techniques of discipline/production; f) these power dynamics occur on a recursive basis to fully adopt/institutionalise the OPP. These dynamics will be used in the analysis section to reflect on how these circuits work in practice, as well as whether they have helped to institutionalise OGD or not. In line with Chapter 6, the period of study for OGD is 2011 to 2015, as stated in Figure 4.1.

The relevance of studying OGD with regards to CP is that this theory provides the inner picture of power flows across agencies involved in the development of OGD, and the power conditions upon which agents interact, and that facilitate or constrain OGD institutionalisation. By revealing the specific power dynamics occurring between OGD implementers and publishers, as well as the power conditions upon which they act, the nature of the OGD institutionalisation process can be better understood (see Figure 7.1) – and also complements the historical institutional analysis conducted in the previous chapter. Unlike HI, CP focuses its timeframe of study on the present, i.e. the period of time in which OGD was implemented – between 2011 and 2015. Given CP’s focus on power dynamics, this chapter follows an inside-out structure comprising four relevant aspects: exogenous contingencies; episodic circuit (causal power); social integration circuit (dispositional power, which includes the obligatory passage point); and systemic integration circuit (facilitative power). Outcomes from this analysis are presented at the end of this chapter, along with discussion and preliminary conclusions. Table 7.1 presents CP’s key theoretical elements and how they are interpreted in terms of the development of OGD in order to clarify the operational relationship between CP and OGD.
The influence of power on OGD

Figure 7.1: Institutionalisation process through the Circuits of Power
Source: Adapted from Silva and Backhouse (2003)

Table 7.1: Summary of CP applied to the development of OGD

<table>
<thead>
<tr>
<th>Circuits of Power Component</th>
<th>Key elements</th>
<th>Assumptions regarding OGD</th>
<th>Specific Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exogenous contingencies</strong></td>
<td>Change is introduced in organisations by occurrence of exogenous events or contingencies.</td>
<td>The idea to implement OGD arose from exogenous contingencies.</td>
<td>What are the external incidents that activate the idea of implementing OGD? How are these contingencies interpreted by the different groups?</td>
</tr>
<tr>
<td><strong>Episodic circuit</strong></td>
<td><strong>Causal Power</strong>: power is exerted by making others do something that they would not otherwise do - A exerts power over B. It manifests in actions. Agents act over standing conditions.</td>
<td>This relates to the agents leading and designing OGD (A), and those public officials who have to implement it in sectoral agencies (B), both acting upon organisational positions and access to resources.</td>
<td>Who are the specific As and Bs of the power relations? Who are the promoters/adopters of OGD? How do they relate to each other? What role and access to resources do they have?</td>
</tr>
<tr>
<td><strong>Social circuit</strong></td>
<td><strong>Dispositional Power</strong>: power is exerted through rules of meaning and membership. It relates to legitimisation and authority.</td>
<td>OGD leaders have to be accepted by other organisations as legitimate, and should also be able to relate to those members involved in OGD who assume power positions, in order for OGD to be accepted across sectoral agencies.</td>
<td>How empowered are As and Bs to implement or adopt OGD? What are the key alliances to implement OGD? How do As and Bs interpret OGD?</td>
</tr>
</tbody>
</table>
Exogenous contingencies

7.2. Exogenous contingencies

7.2.1. Introduction

Exogenous contingencies are key events that trigger change in organisations and lead to the introduction of new policies or initiatives. In terms of CP, exogenous contingencies are the actions that activate power dynamics; the power flows across organisations that help de-institutionalise an initiative.

Focusing on OGD in the Chilean context, exogenous contingencies are the external events that triggered the idea of introducing OGD in Chile and which generated the flow of organisational power to design and implement this initiative in Central Government. In particular, OGD is developed within the Modernisation and Digital Government Unit (MDGU) at the Ministry General Secretariat of the Presidency (SEGPRES). Three broad contingencies that activate its introduction in Chile are identified, which are also similar to some of the institutional paths observed at the end of Chapter 6. Although OGD is implemented by internal MDGU officials, the influence of these three contingencies provided sufficient political momentum and generated the incentives that finally opened up a policy window for OGD in Chile (see Figure 7.2):
a) Dominant political aspirations of efficiency, modernity and regional leadership (from inside the top political executive);

b) Expansion of the transparency and access to information agenda (from both Central Government and political executive);

c) Advocacy from CSOs and pressure from international organisations and Chilean civil society.

7.2.2. Dominant political aspirations of efficiency, modernity and regional leadership

Post-dictatorship Chile faced the challenge of transitioning to democracy while developing a strong economy which could lead to further economic and social development. An important part of this agenda was to show to international organisations and investors that Chile, after 17 years of dictatorship, was a reliable and attractive country to invest in (Boeninger 1997). Chile developed stable political institutions, reduced barriers for foreign investors, and signed international trade agreements, all leading to outstanding and sustained economic growth between 1990 and 2006. As presented in Chapter 5, part of the rationale to make Chile an attractive
country for investment was to emphasise its image of modernity, efficiency and political stability against the backdrop of a wider region which has been mostly characterised by unstable political regimes and constrained economic performance. Among other areas, the emphasis on modernisation and efficiency was widely awarded to ICT-based initiatives, such as digital government projects. The driving rationale for using ICTs during post-dictatorial governments was that they facilitated public service delivery, while at the same time projecting an image of technological advance and adoption of international standards that encouraged investors to operate in Chile (CS-07; RA-12).

In terms of OGD, this rationale ultimately influenced the decision to implement this project as it attracted significant political support during Sebastian Piñera’s term (2010-2014). In line with the path dependency observed in using ICTs to project modernity and efficiency (see Chapter 6), Piñera led his campaign and presidency by promoting efficiency and modernisation as key drivers of public governance. Indeed, he claimed to bring “a new way of governance” to Chilean government based on business management skills and supported by his successful career as a businessman with a results-oriented management style (RA-02; RA-10; RA-12). This rationale was particularly useful for the modernisation of the state and the implementation of digital government policies, where Piñera saw the opportunity to digitalise some public services through ChileAtiende\textsuperscript{10} (CS-01; PSO-01; RA-10). Indeed, interviewees regard this approach as a way to implement relatively inexpensive initiatives that fit modernisation and efficiency rationales, which did not necessarily lead to transformative governance interventions – arguably having been too complex to solve in a 4-year term (PSP-10; CS-07; RA-12). This rationale was also important for Piñera’s aspiration to assume a leading political role at a regional and international level.

Practitioners at MDGU were able to adopt this rationale and introduced OGD to President Piñera. The practitioners and officials responsible for implementing the transparency framework observed OGD as a step towards the expansion of this agenda, and were able to connect with these key drivers of Piñera’s governance approach. Champions themselves observe that they were able to gather political support from the President given the efficiency narrative awarded to OGD: better and more efficient

\textsuperscript{10} https://www.chileatiende.gob.cl/
The influence of power on OGD

public service delivery (PSO-01; PSO-02; PSP-03; PSP-10). Hence, following the international openness movement, and a general admiration for the leading role Obama had in this and other areas of governance, Piñera regarded OGD and open government as conducive to positioning himself as a leader in the region in matters related to efficiency, accountability and modernisation11 (PSO-02; PSP-10). Interviewees observe that both the image of modernity/efficiency and the interest in becoming a regional leader were key drivers for Piñera to provide political backing to OGD. This major political support was reflected in the enactment of a dedicated Presidential Directive which obligated public agencies to implement the initiative (CS-01; PSO-01; PSO-04):

“The logic of the Presidential Directive was this: how do we extrapolate open government and OGD and make it reach all institutions as quickly as possible. Its purpose was more political than operational to force all agencies to participate. The fact that the President himself signs the Directive is the most important signal: everyone has to adopt it since it is sent by the President to all officials and chiefs of services. So the President agrees with its content even though finally he does not understand what it means. He saw the political opportunity and that it was an important signal. When I was at MDGU the Directive was being written, and it was like imitating Obama when he made his open government declaration. However, it was done the Chilean way, with less obligations and way softer.” – Public Sector Practitioner on OGD (PSO-10)

Although this rationale fits with the rhetoric used to internally promote OGD by highlighting both Piñera’s leadership in open government and OGD in Latin America, it also denotes the dominant bureaucratic meaning awarded to the initiative (Gonzalez-Zapata and Heeks 2015)(CS-07; PSP-10). OGD helped reinforce a narrative of efficiency, leadership and modernisation but with inexpensive implementation costs and limited institutional efforts to operationalise it, constraining other political or economic meanings traditionally awarded to OGD. Although the implementation of this agenda was strongly promoted by CSOs (see section 7.2.3 below), these organisations were not able to embed their logics in this mainstream rationale of efficiency and modernity during the occurrence of these exogenous contingencies (CS-07):

11 As he did by implementing a Delivery Unit based on the UK example (Dumas et al. 2013)
“So when you talk about open government in Chile you talk about OGD. The commitments have been mostly focused on the digitalisation of public service delivery, but not on accountability, public policy management or citizen participation. Only 2 out of 12 commitments are linked to citizen involvement. The Government has done a poor job in penetrating the value of open government and its principles. Instead, it has largely focused on issues related to the modernisation of the state.” – CSO advocate in transparency and open government (CS-07, quote also reproduced in section 6.2.1.1.)

7.2.3. Expansion of the transparency and access to information agenda

Prior to the implementation of OGD in Chile (2011), the country observed a long institutional trajectory of transparency and access to information policies. As studied in the previous chapter, progression on transparency and access to information has been mostly driven by institutional efforts to counteract waves of complex corruption cases affecting both the executive and legislative branches of the state.

The Chilean reactive model to implement transparency and access to information regulation consisted of active and passive transparency: a Presidential Guideline for active transparency in 2006 promulgated by President Bachelet (2006) and the law 20.865 for transparency and access to information (CNC 2008b) passed by the Parliament. Beyond active and passive transparency, this law also defines concrete sanctions against public information secrecy as well as creating the Council for Transparency, a public but independent body to oversee the correct compliance of the law. This legal framework provided Chile a comprehensive regulatory body for access to information as well as to set the dominant incentives and rationales for transparency in the forthcoming years (RA-09).

While the transparency framework has been widely acknowledged as a positive step in Chile’s battle against corruption and secrecy, it has also been criticised for the insufficient resources and incentives provided to public officials for its implementation. Its limited execution has created a sense of obliged transparency for public officials, where transparency-related tasks have been perceived as additional workload with no further sectoral compensation (RA-09; CS-06; PSP-06). Furthermore, the legal framework does not provide further directives on providing public information in
machine-readable formats, which is often reflected in paper-based transparency answers (CS-01; CS-03; RA-09). In any case, compliance with the law is generally high, with most Central Government offices answering enquires on time, and with an independent body such as the Council for Transparency monitoring that Chilean citizens can have access to public information (CPLT 2012).

In this context, public officials working at MDGU and who were responsible for the transparency technical platforms at SEGPRES considered OGD as an efficient and inexpensive way to help solve some of these negative externalities caused by the transparency framework (PSO-01; PSO-08; PSP-10) as well as to increase the number of machine-readable datasets available online. Given the technical nature of OGD and its emphasis on machine-readable formats, these public officials saw in OGD a way to increase the availability of digital information, something that the transparency framework did not address appropriately (Gonzalez-Zapata and Heeks 2016; 2015)(PSP-03; CS-01; PSP-06). However, most importantly they regarded OGD as an effective way to reduce the excessive workload caused by passive transparency requests: while traditional passive transparency procedures require sectoral public officials to curate or filter data to provide a specific answer, the implementation of OGD allows for that responsibility to be delegated to citizens who may need to manipulate machine-readable datasets to obtain the specific information they require (PSO-03; PSO-11; RA-03):

“When we published data through active transparency, one of the issues we observed was that this data was not easily re-used by civil society. This data was mandatory to be online, but its reuse was complex given only experts could manipulate it. Then we thought that the international movement on OGD could be a good step to increase the data available given the limited framework provided by the law 20.285.” – Public Sector Practitioner on OGD (PSP-03).

“Once we had the law 20.285 in operation, we looked at future steps to increase the amount of public data available online. The challenge was to have the law as a basis, a minimum standard to fulfil, and then see how to make that data easier to digest by civil society. So we thought that OGD would be the natural next step. We started to think of an OGD initiative based on international standards, of the leading experience of the USA and the UK, plus some minimum standards in
Exogenous contingencies

terms of availability of public data that the OECD was suggesting to their country members.” – Public Sector Official in Transparency (PSO-03).

This bureaucratic rationale driving OGD was received positively by top government officials, who then requested an independent study (Iglesias 2011) to assess the feasibility of an OGD initiative in Central Government (PSO-03; PSP-10).

7.2.4. Advocacy of FCI and pressure from international organisations

Since 2008, OGD has been a global focus of attention for government practitioners, researchers and advocates. In particular, international organisations and civil society organisations (CSOs) have played a relevant role in promoting the benefits of OGD worldwide, in acting as intermediaries between governments and civil society, and in creating awareness of OGD among government officials, all of which helped open policy windows for OGD. Chile observed a similar trajectory: CSOs and international organisations helped create the conditions for an OGD initiative in the Chilean Central Government.

Among CSOs, “Fundación Ciudadano Inteligente” (FCI) is seen as the only organisation that had an active role in OGD prior to its adoption by the Chilean government. Founded in 2008, FCI had an active role in monitoring the transparency framework enacted that same year, making extensive use of ICTs to carry out an agenda of civil participation based on digital tools (CS-03; PSO-04; RA-05). Among different projects, FCI identified the global OGD movement as a step towards developing data-based projects that would allow Chilean society to monitor transparency in a more effective way. Along with regional colleagues with similar interests, FCI started to co-organise “Desarrollando América Latina” (DAL) in 2011, a regional hackathon to create civic awareness of OGD benefits among local communities and regional governments. Within this context FCI requested specific datasets from Chilean sectoral public agencies that were needed to feed the apps to be developed in DAL. The interaction between FCI and MDGU increased over time to channel informal data requests, acting as an external force pushing for an official OGD project in the country (PSP-03; PSO-01). This role was based on their increasing legitimacy obtained by actively monitoring the transparency framework.
through social media and digital platforms, which accelerated the implementation of OGD in Chile.

“Civil society organised a hackathon called DAL and they [FCI] started to push us to release datasets, and asked when Chile would have an OGD policy... Then I said that we wanted to collaborate but they should also acknowledge that Chile was the only country developing a national OGD portal: indeed, we were working on a dedicated OGD directive. So better to be friends: tell me what datasets you need for DAL and we can get them. And we did it, and it was a great strategy because we ensured that civil society, that it was only FCI, talked well about us. Although they continued pressing for an OGD policy, they had to talk well about us because we were the only country where hackers had access to machine-readable datasets and did not have to do scraping from PDFs.

This was important, but it is always positive to acknowledge that FCI was positive for us, they put a lot of pressure on us to develop OGD. They were not a large group of activists, but they insisted a lot. They were really smart and kind, so it was a pleasure to work with them. And its director had a big ego, so did I... We had a good but competitive relationship.” Public Sector Official on OGD (PSO-03)

Along with FCI, international organisations influenced the adoption of OGD in Chile, such as the OECD and OGP. In the case of the OECD, Chile was the first Latin American country to become an official member in 2010. As scholars recall, the acceptance of Chile as a full member of the OECD represented a major challenge to its political elite given the need to improve Chilean political institutions according to international standards (Sáez 2010; Mahon and Mcbride 2009). This membership effect can be observed in the implementation of the transparency agenda. While there were critical internal events that triggered the development of a comprehensive legal framework for transparency and access to information, the international pressure of the OECD to enact a FOIA as a requirement to become a full member helped achieve bipartisan political support (RA-09; RA-07). Once it became part of the OECD, Chile was a member of the “group of developed countries”, which pushed political elites to adopt best international practices, including public governance and OGD. Although there was no OECD mandate to Chile to implement OGD, interviewees observe a peer group effect since other country members were implementing OGD initiatives while leading the growing international movement,
hence pushing Chile to adopt open government and OGD policies (CS-01; CS-03; PSO-07; PSP-01). Government practitioners involved with OGD in Chile observe an aspirational rationale by the Chilean political elite to follow international trends. By subscribing to the OECD, Chile joined a selective group of high and upper-middle income economies, although the country still showed limited institutions and an emphasis on public policy short-termism (PSP-03; PSP-06; PSO-05; PSO-01; PSO-02). Beyond this perception, the OECD has served as driver for adoption of international standards, as happened with OGD:

“I think one of the reasons to implement an OGD initiative was because of the significant pressure from CSOs and the need to achieve international standards which are nowadays a minimum threshold. Other Latin American countries such as Colombia, Brazil, Argentina or Uruguay were working hard on that so we [the Government] also had to do it. I know that at that time people at MDGU were observing the experiences of USA, UK, or Australia, among other OECD countries.” – Public Sector Official in ICTs (PSO-05)

In the transparency arena, the Open Government Partnership (OGP) also played a relevant role prior to implementing OGD. Similar to the OECD, the OGP is a multilateral organisation pushing for better governance practices using ICTs to promote transparency, collaboration, and participation. Chile voluntarily joined the OGP in September 2011 as part of the second cohort (OGP 2013a); at the same time OGD was being planned at MDGU. Chile developed its first action plan for OGD in April 2012, and OGD became one of the key commitments made by the Government in this document (Gobierno de Chile 2012). Interviewees from MDGU agree that subscription to OGP was useful to provide institutional backing and political visibility to the initiative, as OGP was pushing their country members to assume co-created commitments on OGD along with civil society (RA-06; CS-01; CS-03). However, public officials see in these action plans limited opportunity to implement long-term initiatives given OGP’s lack of power to penalise. In addition, the Chilean government saw an opportunity to project an image of modernity and openness through initiatives that did not require major political commitment, institutional effort and economic resources (CS-01; CS-07; PSO-09; PSP-03; RA-01). Indeed, non-MDGU interviewees perceive the limited transformational role
that OGP has had in reforming mainstream governance policies in Chile (CS-07; JT-03; RA-06; RA-12):

“Chile does not have an open government policy, what exists is membership of the OGP. In this process we have had two action plans and we are working on the third one. In the first two the focus was on the modernisation of the state and OGD, and I think they are really weak. OGD has served to position open government because it is the only policy that has political and social visibility. Apart from that, I think open government and OGP have not created any further positive, significant benefit to the country yet.” – Civil Society Advocate in Transparency and Open Government (CS-07)

In particular, interviewees from CSOs claim that, while the Chilean government co-created these action plans together with local civil society, its lack of real political will to assume more complex commitments led to the OGP agenda being mainly managed by local CSOs (CS-03; CS-07; RA-12).

7.2.5. Conclusions

The three aforementioned contingencies are the external events that trigger the implementation of OGD: the initiative was born in Chile given the opportunities left by the complex implementation of the transparency agenda, the advocacy exerted by FCI, OECD and OGP; and the driving rationale of modernity and efficiency exerted by President Piñera at the time OGD reached international momentum. Out of these three contingencies, the political aspiration of the top executive level to project an image of modernity and efficiency was the contingency mentioned most often by interviewees. This contingency provides top political backing and a mandate to implement the initiative, while the other two help to complement this process. In particular, these three contingencies affected the rules of meaning by awarding a transparency-oriented rationale to both sectoral agencies and MDGU; as well as the rules of membership by creating political momentum at MDGU in the form of Presidential Directive 005/2012. The Directive formally framed the initiative during the initial years and politically legitimised the unit to carry out OGD. While there was an agreed vision that these contingencies opened up a policy window for OGD, government practitioners observed how the political elite was replicating similar rationales of past digital government initiatives in OGD. Indeed, the perception of indirect political benefits from OGD – in
addition to the natural increase in government transparency – was a stronger determinant to develop an initiative than mainstream OGD outcomes such as economic growth, greater accountability or more participatory spaces for civil society. This observation will have a partial role in the future resistance of sectoral agencies to adopt OGD, given the pursuit of political reward from MDGU and the President without considering further ways to both generate incentives and expand these benefits at sectoral levels.

7.3. Episodic circuit of power

7.3.1. Introduction

Episodic power relations are based on agents, such as individuals, groups or organisations that are involved in causal power relationships; agents (As) who make other agents (Bs) do something that they would not otherwise do. In this type of power, As exert power over Bs which is manifested in actions, thus being the most tangible of the three circuits. Regarding OGD, As and Bs are the groups involved in OGD implementation and who interact to either promote or adopt OGD in the Chilean Central Government. These agents interact through specific social relations based on their standing conditions, and are also involved in relations of tension in the form of power resistance.

As the episodic circuit of power depicts the direct power relations between As and Bs, there is also a natural focus on the power resistance that Bs may exert over As in the adoption of OGD. The episodic circuit is studied at organisational level, thus focusing on those agents directly involved in the power relations, and the standing conditions that award them legitimacy and/or authority to exert power or resistance in a particular way. Hence, this section is organised by analysing the agents involved in OGD in Chile, the social and resistance relations established between them in the implementation of OGD, and the standing conditions held by the agents involved with OGD.

7.3.2. Agency

The first step to define the episodic circuit of power is to determine who are the agents involved in this relation; i.e. As and Bs exerting power to implement OGD. In particular, we identify MDGU and its government officials/practitioners as As or agents that
(should) exert causal power; and all sectoral government agencies and the individuals involved in the adoption of OGD at sectoral level as Bs, or the agents over whom power is exerted. Key stakeholders acting as As and Bs can be seen in Figure 7.3.

![Figure 7.3: Direct agency in OGD in Chile](Source: Own elaboration)

### 7.3.2.1. As: MDGU

As presented in the previous two chapters, the agency responsible for promoting and implementing OGD is the Modernisation and Digital Government Unit (MDGU) located at SEGPRES. Established in 2010, the Unit was created in response to political conflicts at the Ministry of Economy, where digital government projects were coordinated prior to President Piñera taking office (PSO-01). This Unit is responsible for implementing all cross-sectoral policies related to digital government, although there is also another Modernisation of the State programme at the Ministry of Treasury which is responsible for continuous improvement and reengineering processes for specific public agencies.

During Piñera’s term there was a team at MDGU in charge of implementing the initiative along with other projects, while at the beginning of Bachelet’s term this team had a dedicated role for open government and open data policies.

However, MDGU was only established as a project within SEGPRES (see Figure 7.4), constraining its legal empowerment and economic resources. Given the project status, initiatives are implemented on an annual budget basis, renewable at the end of the year subject to positive results being achieved. Similarly, all civil servants appointed at MDGU
work on an annual/renewable contract basis; a format that creates instability among civil servants but which is useful in allocating them through political quota system\textsuperscript{12} (PSP-10). The lack of independence and empowerment of MDGU fosters the pursuit of short-term political dividends and policy design. Consequently, the unit has been sensitive to political events such as 4-year election cycles, changes in programmatic rationales, or

\textsuperscript{12} The political quota system – known in Chile as cuoteo politico – is the practice of sharing state patronage between political parties by appointing their members in key roles within the state (Michael 2006). This practice has been widely criticised as it hampers the professionalisation of the public administration (Ferraro 2008).
restructuring/creation of new areas, among others. This instability became visible when President Bachelet took office in 2014, when MDGU officials left the Government, existing policies were partially disregarded or weakened, and new programmatic priorities were put in place (PSP-10; PSO-04). At MDGU, the top political leadership changes with each presidential term, and there is no formal protocol in place to transfer projects and tasks.

In contrast, MDGU does enjoy the high political legitimacy and coordination authority inherited from SEGPRES. In Chilean Central Government, SEGPRES plays a key political role in articulating cross-sectoral agendas and interests to promulgate new laws. SEGPRES is observed as a legitimate actor by other sectoral agencies given this articulatory role, which has been useful for the purposes of MDGU, including compliance with Presidential Directive 005/2012 (Piñera 2012), the only legal form of implementing OGD (PSP-03; PSP-12).

7.3.2.2. Bs: Sectoral Public Agencies

The agents responsible for adopting OGD are all sectoral public agencies within the Chilean Central Government. Formally, the mandate to adopt OGD came from the Presidential Directive for open government and open data 005/2012, which only requests public agencies to disclose five datasets of social value. In this process, sectoral agencies had to determine an OGD practitioner, entirely at the discretion of each agency’s top political leadership. The selection of these civil servants often relied upon existing roles related to data management, such as transparency officials/practitioners, chief information officers (CIO), or chief technology officers (CTOs). In this process MDGU did not define a particular set of mandatory tasks and skills for those OGD practitioners. As a result, sectoral agencies determined these roles according to their own perception of OGD: the role may be related to transparency, data, or technology; thus adding these tasks to those of civil servants already working in one of these areas. Consequently, there is a wide range of level of appropriateness, skills, resources and standards relating to implementing OGD across the public sector. This diversity also limits a broader, cross-sectoral conceptualisation and understanding of common challenges and expectations from OGD disclosure.
This informal appointment scheme led to sectoral OGD practitioners being characterised by two issues: their limited empowerment at sectoral level, and patronage-based weaknesses of the civil service. On the one hand, interviewees observe that sectoral OGD practitioners are often non-empowered agents solely limited to operational tasks, with no direct ownership over public datasets (PSO-04; IN-03; IN-05). In this format, decisions on data disclosure are often taken by a group of top sectoral political officials and lawyers in each individual agency (PSO-03; PSO-04). This disclosure format often creates a paradox of incentives in OGD practitioners: they often prioritise low-risk datasets given their limited empowerment (RA-01; RA-03; RA-08), often transferring sensitive data disclosure decision-making to the lawyers’ team (PSO-03; PSP-11). Interviewees acknowledge that this limitation is reinforced by an extended sense of risk aversion prevalent across the Chilean public sector based on a strict public law principle: civil servants’ duties and actions are confined by public law:

“There is an evident vice inherent in the structure upon which you currently build OGD infrastructure [in Chile]: if you allocate the responsibility of information disclosure to civil servants, to make government data public, but at the same time that person does not have any power, then the incentive is to not take any risk, like in OGD. If that person has to discriminate or filter what is closed or open, then there could be disagreement about what is public and what not.” – CSO Advocate in ICTs and Transparency (CSO-04)

On the other hand, OGD is affected by a weak civil service that relies on a quota system and patronage to fill a significant amount of positions. Although exceeding regional standards of public recruitment, Chile has a limited professionalisation of civil service. There is a national civil servant recruitment system in place, known as “Alta Dirección Pública”, which is only used for recruitment into high level positions. These are above most ordinary civil servants (1st and 2nd hierarchy levels), while several key roles are allocated based on a political quota (RA-08; RA-12). Besides, there is no formal training programme for new roles within the Government in terms of public law, routines or administrative procedures. In the absence of formal training, this lack of knowledge is often filled with the norms of organisational culture, which tends to avoid risks and to privilege sectoral over cross-sectoral views. Additionally, most civil servant positions are on an annual/renewable contract basis, which constrains innovation as potential
mistakes related to policy making are feared as jeopardising the development of long-term careers (PSP-01; PSP-07):

“The civil service scheme in Chile reinforces several cultural issues: decisions are taken based on summary judgement given the unstable working system and the mandate of public law. And as OGD is not mandatory, then the incentive is to undertake a low-risk approach and to release non-sensitive datasets of low relevance.” – Former Public Sector Practitioner in ICTs (PSP-07)

In this institutional framework, civil servants who are responsible for OGD are in a weak power position with regards to following cross-sectoral institutional policies and the exertion of binding decision-making in their sectoral agencies (PSP-11). In the particular case of OGD, this scenario becomes even more complex given the lack of legally binding capacities of the Unit as well as resources to carry out a comprehensive OGD policy. However, interviewees from MDGU observe that in some agencies they encountered civil servants who, despite these limitations, were able to mobilise the agenda and convince top hierarchy levels to further disclose public data through OGD. These OGD champions are individuals who understand how data disclosure works in practice, observe the possibilities for public value creation through OGD not just for their agency but for other key stakeholders, and have sufficient legitimacy to influence sectoral decision-making.

This limited framework for civil servants working on OGD constrained the support from sectoral agencies. The adopted development model, which relied more on MDGU’s legitimacy and sectoral agencies’ good will rather than binding and clearly defined roles and procedures, led to OGD civil servants not having any ownership over the data or the disclosure processes. In the absence of empowered OGD practitioners, most stages of the disclosure process were characterised by a minimum-compliance standard, with high levels of heterogeneity across sectoral agencies in terms of the practitioners leading OGD implementation, the criteria used to determine their own values and visions for OGD, as well as the relevancy they attach to individual datasets.
7.3.3. Social relations

The initial indirect relationship between MDGU and sectoral agencies started when MDGU developed an OGD repository at the end of 2011, however not directly exerting causal power. During this initial phase MDGU withdrew several public datasets already available online on sectoral agencies’ websites with no further notification to their agency-owners, and re-published or linked them to the national OGD portal. Anticipating low levels of commitment and to facilitate a quick deployment, MDGU officials authorised this method by using SEGPRES legitimacy and coordination power: public agencies would not feel threatened given SEGPRES, the ministry responsible for political coordination, was leading this initiative (PSO-02; PSP-03; PSP-10). Once these datasets were made public on datos.gob.cl, MDGU sent a letter to all the owner agencies from where datasets were withdrawn expressing gratitude for their ‘collaboration’ with the initiative. The purpose was to get agencies involved in a policy requiring minimum effort from their side, and which was directly backed by the President:

_The first thing we did was downloading all datasets we found on public websites and uploading them to our OGD platform. Then we sent a letter to the directors of all agencies showing gratitude for their ‘participation’ in the initiative and their collaboration with a project supported by President Piñera. Then they were happy because they did not do anything but were automatically ‘helping’ the President. It was a policy of fait accompli.” – Former MDGU Chief Information Officer (PSO-02)._

This initial approach shows how MDGU did not operationalise power given the anticipation of low commitment from sectoral agencies, and its low level of empowerment to exert causal power at this stage. Instead, they adopted a rational strategy that would not affect sectoral agencies’ routines and working practices. Hence, this initial stage does not observe causal power flowing from MDGU to sectoral agencies. Acknowledging its lack of causal power, MDGU follows this unidirectional strategy; i.e. avoids overtly trying to exert power which it does not possess. Interviewees agree that this approach did not foster collective goals and alliances for OGD, as agencies were not...
aware of the publication process as well as the benefits data disclosure may deliver (RA-03; PSP-10).

The formal causal power relationship between MDGU and public agencies started with the enactment of the Presidential Directive 005/2012 for Open Government and Open Data (Piñera 2012). In Chile, presidential directives are legally binding documents that are promulgated by the President without any further proceeding in the Chilean Parliament. Directives are often used to introduce key instructions to be carried out by public agencies during one presidential term, and are valid unless current or future Presidents abolish them. The legal validity of a Presidential Decree in Chile is under the responsibility of the Chilean Attorney General, although in practice they often do not have sufficient resources to monitor compliance with all directives (PSO-02).

In particular, Presidential Directive 005/2012 promotes data disclosure “with the purpose of fostering knowledge creation, new public services and citizens’ engagements” (Piñera 2012, p.4). In terms of disciplinary power, it mandates all public agencies to disclose five datasets of social value within 60 days since its promulgation through the OGD platform. The selection and disclosure procedure was entirely at the discretion of public agencies, but had to observe the restrictions imposed by the transparency law 20.285 and the data protection law 19.628. The Directive does not define any further monitoring or sanctioning procedure, such as updating cycles, sectoral responsibilities, or roles; only declares that MDGU is responsible for developing technical guidance for OGD publication; and does not provide any incentive to foster data disclosure in sectoral agencies. This document defines user profiles to access the OGD platforms and requests using machine-readable formats and open licenses (UMGD 2014). With the directive being the only official regulation for OGD in Chile during the period of study, MDGU faced OGD implementation from an extremely weak power position. The disclosure process relied fully on public agencies which did not have further political or economic incentives (PSO-04; PSP-10):

“The publication cycle is the full responsibility of sectoral agencies, we only coordinate and indeed we do not take part in any internal negotiation unless there is a technical issue, but the responsibility of publishing and updating is that of the sectoral institution.” – Former OGD practitioner at MDGU (PSP-09)
During the 60 days after the enactment of the directive, most public agencies struggled to understand its final purpose, meaning and operationalisation. Given the initial approach of MDGU to solely communicate rather than involve public agencies with regard to data publication, the latter faced the fulfilment of the directive with an unclear idea of the technicalities, responsibilities, roles and purposes of OGD (PSP-10; PSP-12). In order to reduce these conflicts, MDGU appointed a central OGD practitioner at the Unit with the purpose of clarifying to sectoral agencies how the directive had to be implemented. The rationale used by MDGU at this stage was to encourage agencies to disclose relevant datasets prioritising those ones which represented significant possibilities to reduce the workloads of passive transparency; i.e. by publishing those datasets which are requested most often, public agencies may discourage citizens to submit passive transparency requests as the data would already be available on the OGD platform – hence transferring data processing to citizens:

“Often the first adopters are transparency officials; they are like angels who understand what OGD is and push for its implementation. However, often they do it for a practical reason: data requestors usually ask for the same type of information, so for them OGD would be a good way to publish that data and get rid of the problem; then the only thing you have to answer is the link to that dataset and the requestor does the rest of the work” – Former Public Sector Practitioner in ICTs (PSP-09, quoted also reproduced in section 6.2.1.5.)

Besides, sectoral OGD roles were fulfilled according to the sectoral understanding of the Directive: some awarded a transparency rationale and thus appointed transparency practitioners/officials, while others saw in OGD a technological meaning and thus appointed ICT practitioners/officials (PSP-10). As a result of this approach, some agencies had not published the five datasets at the end of the 60-day period, while others did publish them but prioritised easy-to-disclose or non-relevant datasets given the complex decision-making process they experienced at sectoral level – publishing practitioners and officials were responsible for making those datasets available online and did not have any type of ownership over them, thus relying on the decision-making of sectoral committees (PSP-03; PSP-10). Once the 60-day period was due, MDGU established informal publication agreements with sectoral agencies based on their
The influence of power on OGD

willingness to continue to disclose datasets (PSO-03; PSP-10). The issues here reported were also observed during the rest of President Piñera’s term.

Once President Bachelet took office (2014), social relations were affected given the high rotation of both MDGU officials and sectoral OGD practitioners. Given the quota system, all top political MDGU officials left the Government, and SEGPRES appointed key civil society advocates working on OGD to lead the agency as well as the initiative (PSO-04; RA-03). Although this move is observed by interviewees as a form of co-option, these advocates saw an opportunity to extend the OGD policy given the limitations observed during the past presidency. New officials observed the lack of incentives for sectoral agencies to disclose datasets, the prevalence of sectoral rather than collective goals for OGD, as well as the impact unclear guidelines from MDGU had on OGD appropriateness (PSO-04; PSP-09). The quota system also impacted sectoral agencies as the transition from Piñera’s government to Bachelet’s centre-left government caused a high level of rotation in quota-appointed civil servants, with most OGD practitioners having been made redundant. As a consequence, most informal publication agreements were broken, and the initiative did not observe any progression for around a year: almost no dataset was updated during this time, and existing ones were not uploaded on a regular basis (PSO-04; PSO-09).

In order to overcome this scenario and given the limited political empowerment in the form of causal power to force public agencies to continue publishing, MDGU attempted a new form of relation in order to foster collective goals and coalition building for OGD: the Unit designed a collaborative strategy which included both training to sectoral OGD practitioners as well as the signing of collaboration agreements with sectoral agencies to formalise data disclosure. The rationale of this approach was to leverage publication cycles, increase awareness of OGD, and to develop sectoral incentives to enact a systematic publication cycle (such as reducing transparency-related tasks, or co-solving public issues with civil society) – three elements that interviewees agree were missing in the OGD strategy during Piñera’s presidency (PSO-04; PSP-10; RA-03; CS-04; CS-07). In particular, the collaboration agreement looked at providing technical support to sectoral agencies in relation to the workload that OGD caused against the commitment to have a consistent publication plan (PSP-07). The policy approach of increasing
incentives and reducing technical barriers (e.g. via training and technical support) to OGD disclosure is consistent with the previous analysis of MDGU’s limited ability to exert causal power. By promoting initiatives that shape the behaviour of sectoral agencies, MDGU avoids the need to demonstrate power and seeks alternative strategies to encourage Bs to behave in a certain way (contrary to how they would normally behave), while avoiding the need to overtly demonstrate that they actually lack such power.

However, the agreement approach undertaken by MDGU did not produce envisaged outcomes given the lack of political support to fully institutionalise this policy. MDGU officials observed that the high level of politicisation of SEGPRES in the form of both Minister’s personal political agenda and the focus on its role as political coordinator limited the economic and political support to carry out this plan (PSO-04; PSP-07; PSP-10). Again, the OGD agenda relied on sectoral political will instead of a national OGD strategy. The result of this political scenario was that top MDGU officials left the Government given the lack of political attention, and only a few agencies took part in this collaborative approach (PSP-10). According to interviewees from MDGU, negotiation processes were long and strenuous, mainly due to the lack of causal power MDGU held as well as the unclear ownership of data available in sectoral agencies (PSP-07; PSP-10). Although interviewees observe that this collaborative approach was appropriate within the context of a non-institutionalised environment, the lack of empowerment of MDGU constrained further expansion and adoption of OGD (PSP-03; PSP-10). As a consequence of this limited political scenario, OGD did not fully take off in Chile during the period of study.

Overall, social relations between MDGU and sectoral publishers were characterised by a lack of causal power of MDGU to commit sectoral agencies to OGD publication and to generate incentives. As both social and systemic integration circuits explain, the lack of facilitative and disciplinary powers put MDGU in an extremely weak power position to bargain and enforce compliance with Presidential Directive 005/2012. Instead, the only political backing that OGD received in these social relationships came from the political legitimacy that SEGPRES held during the period of study as well as the direct backing from President Piñera himself. While the rationale for reducing bureaucratic transparency costs was widely used as incentive to advertise OGD among sectoral
transparency or IT officials and as a way to compensate for the lack of causal power at MDGU, it was insufficient to create sustainable incentives given the limited resources in place for OGD implementation (CS-07). Consequently, OGD was observed mostly as an extension of the transparency agenda by public officials, hence replicating the obliged culture of transparency inherited from earlier implementation of the transparency law.

7.3.4. Power resistance

As Foucault suggests, “Where there is power, there is resistance” (1998, p.95). In CP, the role of power resistance is relevant to understanding the nature of episodic power; i.e. if As want to make Bs do something, what reasons have Bs to not follow those rules? Scholars in CP have attempted to define methods to understand power in the context of information systems. In particular, Markus (1983) provides a suitable approach to power resistance in the context of CP, which has been used by other researchers in order to understand resistance dynamics in IS. Markus suggests that resistance in information systems can be caused by the people involved, the system or technology itself, and the interaction between them (see Table 7.2). Hence, she defines three not mutually exclusive causes of resistance:

- **People-determined resistance:** power resistance occurs because of the people involved in the information system; their culture, beliefs, or skills have a dominant impact on why the information system is resisted.
- **System-determined resistance:** power resistance occurs because of the technicalities of the information system and its implementation; the initiative is deficient, not user-oriented, or the organisation is not technically prepared to implement it.
- **Interaction theory resistance:** power resistance occurs because of interactions between people and systems in the environment they are placed in. It comprises two variants:
  - **Socio-technical variant:** interaction between the system and the distribution of responsibility and roles within an organisation; and
  - **Political variant:** interaction between the system and the intra-organisational distribution of power.
Having outlined the potential causes of power resistance, a key aspect is how resistance behaviour manifested itself. The previous social relations section demonstrates a limited exertion of causal power from MDGU to sectoral agencies in the implementation of OGD. Evidence suggests that sectoral agencies did exert power resistance towards OGD, which restricted the adoption and implementation of OGD at sectoral level as MDGU did not have sufficient institutional capacities to “resist the resistance”. After analysing the observed causes of resistance behaviours, the different forms of power resistance are explained at the end of this subsection.

Table 7.2: Power resistance in information systems

<table>
<thead>
<tr>
<th>Resistance Aspects</th>
<th>People-Determined</th>
<th>System-Determined</th>
<th>Interaction Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause of resistance</td>
<td>Factors internal to people and groups</td>
<td>System factors such as technical excellence and ergonomics</td>
<td>Interaction of system and context of use</td>
</tr>
<tr>
<td></td>
<td>• Cognitive style</td>
<td>• Lack of user-friendliness</td>
<td>• Socio-technical variant: interaction of system with division of labour</td>
</tr>
<tr>
<td></td>
<td>• Personality traits</td>
<td>• Poor human factors</td>
<td>• Political variant: interaction of system with distribution of intra-organisational power</td>
</tr>
<tr>
<td></td>
<td>• Human nature</td>
<td>• Inadequate technical design or implementation</td>
<td></td>
</tr>
<tr>
<td>Assumption about resistance</td>
<td>Resistance is an attribute of the intended system user; undesirable behaviour</td>
<td>Resistance is an attribute of the intended system user; undesirable behaviour</td>
<td>Resistance is a product of the setting, users, and designers; neither desirable</td>
</tr>
<tr>
<td></td>
<td>based on individuals’ characteristics</td>
<td>based on system’s features</td>
<td>nor undesirable</td>
</tr>
<tr>
<td>Facts needed in real-world</td>
<td>System is resisted, resists differ from non-resistors on certain personal</td>
<td>System is resisted, system has technical problems</td>
<td>System is resisted, resistance occurs in the context of political struggles</td>
</tr>
<tr>
<td>case for theory to be</td>
<td>dimensions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictions derived from</td>
<td>Change the people involved, resistance will disappear; job rotation among</td>
<td>Fix technical problems, resistance will disappear; improve system efficiency or</td>
<td>Changing individuals and/or fixing technical features will have little effect on</td>
</tr>
<tr>
<td>theories</td>
<td>resistors and non-resistors</td>
<td>data entry</td>
<td>resistance; resistance will persist in spite of time, rotation and technical</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>improvements</td>
</tr>
</tbody>
</table>

Source: Adapted from Markus (1983)
7.3.4.1. People-Determined Power Resistance

The development of OGD in Chile has involved several agents at sectoral public agencies. In particular, the Bs have played a relevant role in the way sectoral agencies have (not) adopted OGD during the period of study. Related to people’s beliefs and culture, two causes of resistance are observed in sectoral OGD civil servants in Chile: the obliged transparency rationale and the limited value awarded to data-driven policy making by Chilean civil servants.

One key reason for power resistance is the obliged transparency rationale prevalent across sectoral public agencies in Chile. As covered in Chapter 6, civil servants saw transparency initiatives as extra workload and bureaucratic tasks as a result of the limited implementation and lack of resources available to them to carry out the transparency agenda in Chile. This rationale was also observed in OGD implementation which was reflected in the limited support MDGU received from transparency officials and other OGD agents. These actors perceived that OGD was an extension of existing transparency policies with similar restrictions of economic resources to be implemented (PSP-06; PSP-12). Indeed, during the negotiation and advocacy period, transparency officials even asked MDGU to reduce the number of transparency tasks given the complex intra-organisational scenario they faced:

“Often the first people interested in OGD are the transparency officials, because they anticipate practical benefits; they are exhausted of receiving FOI requests for the same data, so if that data was made public then you would only refer requestors to the link and it’s done. Often they even ask whether we were planning to reduce transparency requests. It’s a paradox when you are indeed asking for more data to be made public.” – Former MDGU OGD practitioner (PSP-09)

Resistance behaviour emerged from the obliged transparency rationale and manifested itself in a reluctance to actively disclose datasets and a preference to publish low-risk datasets given that efforts were focused on complying with the regulated transparency and access to information framework only. Sectoral agencies observed OGD as an extra effort in addition to the transparency framework, and gave preference to low-risk or irrelevant datasets rather than more socially valuable data, in order to minimise tensions and costs in data disclosure decision-making. Interviewees observed that several
agencies divided existing datasets into smaller sub sets to fulfil the minimum of five datasets as requested by the Directive 005/2012. This reflects the minimum-effort logic present in most of the sectoral agencies.

“There are transparency officials who, among several other tasks, have to deal with active transparency and answer passive transparency requests, both framed by the law 20.285. And when there is too much demand for transparency, agencies appoint a civil servant as a transparency official or sectoral contact. Often OGD tasks are allocated to these officials, so they relegate OGD tasks in favour of their core transparency commitments, affecting the frequency and quality of OGD publications.” – Sectoral OGD practitioner (PSP-06)

Additionally, another people-related cause of resistance is limited awareness and availability of skills needed for a data-driven public sector. Interviewees from MDGU observed the limited capacities found in sectoral agencies to manipulate data, create public value from datasets, and to value OGD from a data-driven policy perspective. Indeed, sectoral agencies have often isolated initiatives in data-intensive policy-making, lacking established data units that can deal with the technicalities of OGD and visualise sectoral benefits related to the disclosure of data:

“I think we do not have sufficient policies for data-driven governance. There is not enough knowledge and skills in technical teams to anticipate the added public value locked in the information they manage, so often data is only used to run existing programmes or daily routines. Apart from research teams that each sectoral agency may have, I think there is not enough awareness regarding the public value that can be derived from mining datasets.” – Public sector practitioner in data management (PSP-07)

The gap caused by absence of these skills and knowledge was often filled by the existing organizational culture, which was characterised by a fear of chaos and aversion to risk and innovation, in contrast to the more technical view of OGD from MDGU (PSP-07). Interviewees from MDGU observed that some sectoral OGD civil servants resisted the initiative by prioritising a minimum number of datasets from areas that were not politically sensitive, in order to reduce tensions in the decision-making on data disclosure (PSO-04; PSP-09; PSP-10). Additionally, given the limited awareness and value attached to data-driven policy making, sectoral agencies showed apathy to OGD as they
The influence of power on OGD
did not observe any particular added value to their own business, thus disclosing data on an infrequent basis (PSP-03; PSP-10).

7.3.4.2. System-Determined Power Resistance

Intensive interaction with the system itself – the OGD platform – is not required in order to publish datasets. Indeed, the platform is only a repository where sectoral publishers have to upload datasets through an interface that requires users to be logged in. In this regard, sectoral OGD publishers do not see any technical aspect of the OGD platform as a cause of resistance. However, they observe that the lack of data governance practices in sectoral agencies created resistance to OGD in sectoral OGD practitioners (PSO-04; PSP-03; PSP-09; PSP-10).

Data governance is understood as the set of standards and procedures to ensure that data is managed in an appropriate and timely manner in organisations. As observed in Chapter 6, Chile does not have a long-term, comprehensive public data management policy. The lack of standards and procedures to maintain public data dramatically increases the internal costs of curating datasets prior to publication to maximise data quality (PSO-03; PSP-10). Internally, public agencies managed data in silos, in varying formats and on different platforms, and with unclear ownership standards. In this data management context, resistance is observed in the continuous practice of OGD practitioners/committees to release data that requires a minimum curation process and in non-manipulatable formats (PDF and JPG), in order to minimise the risks poor data quality can expose (PSP-09; PSP-10). Sectoral OGD practitioners prioritised irrelevant and low-risk (politically innocuous) datasets to avoid the risk that a lack of data governance practices could unveil issues in public policy decision-making or implementation:

“[About sectoral data governance practices during OGD implementation] No, there was nothing, everything at a really poor level. We did not find any ministry that had clear, well organised data standards. Millions of Excel files were spread across different computers and users, and not even held centrally on a server or disk... each of them with different versions; version OK, version OK OK, final OK 1, final OK 2. We also found out that they did not have any internal policy to determine formats, so you could see the same files in Excel,
A good case to exemplify the resistance towards enhancing sectoral OGD disclosure was provided by an interviewee working on data management at the Central Government. When the Directive 005/2012 had to be fulfilled, one public agency avoided the data curation and anonymisation process by just dividing one existing spreadsheet file, containing most common names in the country, into two sub-files: one with female names and a separate one with male names, hence having automatically two datasets to comply with the Directive (PSP-06).

7.3.4.3. Interaction-Determined Power Resistance
This cause of resistance considers the interaction between the system and the people within the context of the organisation of labour and power distribution by looking at two variants: socio-technical and political.

For the socio-technical variant, the most relevant cause of power resistance emerged from the unclear definition of OGD objectives, roles and responsibilities by MDGU; i.e. the Unit never fully defined an OGD policy for the Central Government nor created awareness for OGD at sectoral level. The approach undertaken by MDGU from the very beginning never considered a long-term and comprehensive data policy that integrated visions and expectations from sectoral agencies in order to develop collective goals for OGD, nor did it provide sufficient resources or technical support to fully appropriate the initiative. MDGU only vaguely defined general publisher and editor roles. Given the enactment of the Directive 005/2012, MDGU developed technical guidance which only suggested these two functions (Piñera 2012, p.3). These roles were not fully outlined, and sectoral agencies defined them according to their own interpretation; often related to transparency processes and ICT management (PSP-03; PSP-10):

“In our Ministry there was never an official person responsible for OGD, as there was a transparency practitioner who could assume the responsibility for the disclosure process and could be sanctioned. The OGD practitioner does not exist, unless you have a highly specialised ministry which fully appropriates OGD, but often these roles are totally unclear.” - Public sector practitioner in data management (PSP-12).
This approach distributed formal responsibility across several agents and discouraged formal ownership of the initiative (PSP-09). This operational scheme meant that sectoral agencies resisted OGD by either delaying decision-making related to data disclosure through committees and lawyer teams; or by disclosing irrelevant and non-sensitive datasets (PSP-10; PSP-12). Besides, the initiative did not provide further resources which could have alleviated the increase in workload on OGD practitioners. As a result, most OGD practitioners showed resistance behaviour by prioritising daily routine tasks over OGD-related tasks, reducing the number of released datasets and the long-term commitment of their agencies to the OGD agenda (PSO-04; PSP-10; PSP-12).

The lack of a formal and long-term OGD policy as a cause of resistance is evident when President Bachelet took office. The aforementioned lack of formality in OGD was visible through the lack of official transfer of responsibilities and roles in OGD from Piñera’s government to Bachelet’s government (PSO-04; PSP-10) at both MDGU and sectoral agencies. As the majority of OGD publishers were made redundant for political reasons, agencies reduced the number of published datasets or did not publish datasets at all in 2014, showing a disengagement behaviour that led to OGD lagging behind:

“The main problem has been switching to a new government, from Piñera to Bachelet; since it was not just a change in the presidential office but an entire ruling coalition, most of the publishers left the Government from March 2014 onwards and stopped publishing [on the OGD platform]. The problem is there are still several institutions with which we are trying to restart the publication processes. At these institutions there was a more or less systematic publication approach, but now those circuits do not exist anymore, and there was not a timely and appropriate transfer of responsibilities or of the commitments the outgoing government had assumed.” – Former OGD practitioner at MDGU (PSP-09)

However, most of the interaction-determined power resistance comes from the political variant through issues emerging from power distribution caused by data disclosure. In particular two causes of resistance are associated with this variant: sectoral officials worried about their loss of power a) within their organisations and b) to the benefit of civil society and the private sector.
The first form of politically-determined power resistance is the concerns of key sectoral officials of losing some of the power of their positions by disclosing valuable data. Given how sensitive some data can be for internal decision-making, public data was seen as a source of influence and political power within these agencies by some sectoral officials. Interviewees from MDGU observed that in cases where OGD had the potential to threaten these positions of power, sectoral officials resisted OGD by not disclosing data at all or by emphasising the release of politically innocuous datasets to balance the requirements for engagement with the protection of their roles (PSO-04; PSP-10; RA-12). By disclosing valuable datasets, officials thought their role as data managers would be less relevant, thus reducing their influence in decision-making. Additionally, low data governance standards may have revealed mistakes in public policies, thus affecting power and positionality of those officials who were responsible for the implementation of these policies and related decision-making. These assumptions led several officials to resist OGD in the absence of a stronger, more powerful position from MDGU:

“Once I had a tough discussion with one public servant working at X agency since the dictatorial period; he did not want to release data because he claimed that the data belonged to them and that it was more important what they did with the data instead of what citizens may do with it. There is a natural resistance to change in these organisations. Often the older people in the government are the ones that resist the most because that data secures them a power position within their organisations; they are the only ones who manage the data that ensures their position within that agency. Facilitating access to that data is not convenient for their positions, so often they emphasised low-quality data disclosure on the OGD portal.” – Former MDGU official (PSO-03).

“There are natural spaces of power in such big organisations like the Central Government, where some civil servants consider that data transparency reduces that power, as well as professional jealousy: ‘I own that dataset, it’s mine and I don’t share it with anyone’. Data as a source of power. Besides, that owner is often the same person that captures, manages and discloses the data, so opening up that dataset is too complex; my organisation or my unit is important because I have the data. ‘If I open up the data I will not be as important as now’. That is the perception we have about several public agencies.” – Former MDGU official (PSO-04)
There are fears that others download datasets, and interpret them in a way that can harm their institution. For example, the open dataset may say that there are more fishermen in a certain city than we are counting to allocate resources. And then the executive would need to justify the agency’s actions, while the data says something different. That is the fear that many institutions have that their datasets and other datasets will ruin them, which led them to adopt a limited publication approach for OGD, either publishing low-relevant datasets or delaying decision-making through committees that analysed the legal implications of the disclosure of datasets.” – Former OGD practitioner at MDGU (PSP-09)

On the other hand, sectoral OGD officials occasionally assumed that data disclosure would empower civil society or private sector agents, whereas the costs associated with data curation and disclosure are fully covered by sectoral agencies (PSE-02; PSO-04; PSP-04). Given both the limited creation of sectoral incentives and the lack of economic resources provided by MDGU, sectoral agencies saw OGD as a process of empowering others through the provision of extremely valuable data for economic or accountability purposes at their own cost. At the same time, the agencies did not perceive further sectoral benefits related to OGD (PSP-10); i.e. OGD did not represent any gain for public agencies in trading public datasets (PSO-04). Most sectoral agencies, when they require data from other units, establish one-to-one trade agreements or directly request the data from the producer (PSP-07; PSP-10). In particular OGD principles such as aggregation and anonymity are not useful for public agencies given their need for detailed data; e.g. public agencies require dedicated personnel to verify procedures, monitor public service delivery or enrich their own studies (PSP-02; PSP-12; RA-03). For these purposes, they require granular datasets:

“In our agency the participation has been mostly voluntarily. I do not think that there is awareness and clarity as to why OGD should be implemented at our executive level. There is uncertainty about what are the real benefits of implementing OGD, because for our agency that data is not useful; we need more granular datasets. Hence, to date our limited participation has been more about collaborating with SEGPRES, but to be honest we do not observe any internal benefit from OGD.” – Sectoral official in data management (PSO-07).
The absence of sectoral benefits in OGD was yet one further reason why some agencies only cooperated with MDGU based on low-quality and politically innocuous datasets. These datasets did not compromise political internal decision-making and agencies did not have to invest further resources to prepare the dataset prior to its disclosure given the limited internal benefits observed (PSE-02; PSO-04; PSP-04; PSP-10).

7.3.4.4. Power Resistance Behaviour in OGD

As stated beforehand, MDGU did not exert significant causal power in OGD, and this links to the evidence on power resistance behaviour observed during the period of study. Although most agencies did comply with the Directive, there is evidence of a general disengagement of OGD disclosure in the long term, which can be understood as a form of resistance given the limited involvement of sectoral agencies in a cross-sectoral government-led OGD project. In particular, power resistance in OGD is expressed by sectoral agencies’ approach to data disclosure as is manifested in five distinct forms of behaviour:

- **No/limited data disclosure**: agencies resisted the OGD initiative by not releasing datasets, by merely complying with the bare minimum of Directive 005/2012, or by having an infrequent approach to publication.

- **Disclosure of low-risk data**: agencies showed resistance to OGD by releasing data that did not endanger key political and public managerial issues. Agencies resorted to basic, innocuous datasets in order to comply with the initiative and simultaneously maintain control over key sectoral datasets.

- **Disclosure of low-quality data**: agencies also manifested resistance to OGD by prioritising the publication of low-quality datasets, or data in closed machine-readable formats such as JPG or PDF. The high costs of data curation prior to publication discouraged sectoral agencies from disclosing datasets in high quality condition.

- **Limited sectoral long-term engagement**: some agencies resisted the initiative by adopting a one-off publication approach to fulfil the OGD Directive, or they disclosed datasets on an infrequent basis, but avoided assuming long-term
commitments that required further political and economic resources to disclose OGD.

- **Delays in data disclosure decision-making**: agencies showed resistance to OGD by delaying decision-making to authorise data publication. Given the limited sectoral data ownership and the diverse data formats and sources (silos), sectoral agencies created committees with lawyer teams to debate the appropriateness and depth of their publication approach. This strategy often obstructed, and weakened initial interest in, data publication.

The presence of these types of power resistance behaviour suggests existence of power resistance and, consequently, a generalised disengagement with OGD in the country. Although the majority of agencies complied with the Directive during the 60-day period, thereafter they did not fully commit to deepen data disclosure through OGD as is reflected in the last four aforementioned forms of power resistance. Evidence suggests that these power resistance behaviours had different causes; related to individuals’ beliefs and skills such as lack of transparency and data-driven rationales; related to OGD systems such as the limited data governance practices at sectoral agencies; socio-technical-related absence of a sound strategy for OGD with clear roles and responsibilities; and political-related views of OGD as a potential means of disempowering civil servants with regard to their internal roles and towards third parties.

### 7.3.5. Standing conditions

In CP, causal power is caused by a set of tacit/explicit standing conditions in the relationship between As and Bs. These can include constitutional-legal powers these agents can possess, and their access to unequally distributed financial, organisational, informational and political resources which can be used to leverage and negotiate favourable outcomes. This subsection analyses standing conditions for both MDGU and sectoral agencies in the context of their OGD social relations.

In the case of MDGU, the Unit has limited standing conditions that place it in a weak power position to deal with sectoral agencies as well as to develop collective goals and alliances for OGD. In terms of constitutional-legal powers, this Unit is indeed only a
project, and there is no legal mandate to have a digital government unit responsible for OGD-related matters (PSO-02; PSO-04; RA-03). The only legal power in terms of OGD is derived from the Presidential Directive 005/2012, which solely mandates public agencies to release five datasets without empowering MDGU to monitor its compliance. With regard to access to resources, MDGU is also in a weak position. The Unit only has an annually renewable budget, which is mostly spent on human resources and the infrastructure of the interoperability platform (PISEE) (PSO-02; PSP-10). This budget constituted the only financial resource available to MDGU to support the maintenance of the OGD platform (PSP-10). Regarding organisational resources, the Unit does not have a formal role within SEGPRES; as stated before, MDGU is only a project within the Ministry, hence having limited bargaining power to determine strategies or receive long-term political support (PSO-04; RA-03). Looking at political resources, MDGU does not hold sufficient power within SEGPRES and across the Central Government due to the aforementioned organisational scheme. MDGU only inherits the strategic position that SEGPRES has to coordinate inter-ministerial work, and which is used to reach sectoral agencies to implement digital government policies (PSP-03; RA-03; RA-04; RA-12).

Unlike MDGU, sectoral agencies are often in a more empowered position. In terms of constitutional-legal powers, all agencies mandated by the Directive 005/2012 are ministries and public agencies regulated by public law, thus having established roles within the Government backed by sectoral/national regulation (PSO-09). Regarding economic resources, although these agencies have sectoral annual budgets they do not allocate resources for OGD implementation. Consequently, they often do not have sufficient resources to curate datasets and to fund dedicated staff to lead OGD at sectoral level (PSO-02; PSP-10). In terms of organisational resources, publishers at sectoral agencies often do not have sufficient bargaining resources to push for OGD, with decision-making relying on top political sectoral leadership and lawyers; both often see OGD as an extra workload in the absence of further resources from the Central Government. Finally, these agencies have diverse political interests according to the core tasks mandated by law and the personal interests of those who lead them. In the absence of incentives for OGD at sectoral level, political resources are often only allocated to OGD if these agencies anticipate sectoral benefits for their own agendas, or
The influence of power on OGD

if the top political leadership is aware of future positive social impact. However, in practice this only occurs in a limited number of cases (PSP-09; PSP-10).

As a consequence, sectoral agencies are in a better position of power to resist the limited causal power that MDGU can exert due to the difference observed between the standing conditions for MDGU and sectoral agencies.

7.3.6. Conclusions

The outcomes of the episodic circuit show limited flow of power in OGD implementation from MDGU towards sectoral agencies. These agencies were more empowered than MDGU to exert resistance thanks to different standing conditions, i.e. social relations did not observe a clear, dominant form of causal power and hence MDGU was not able to exert sufficient pressure on sectoral agencies to implement OGD. As a consequence, sectoral agencies exerted resistance to OGD mainly in the form of political and socio-technical determined variants; OGD was seen as a tool to partially distribute power but without further sectoral benefits for those implementing it that could repay the cost of data disclosure. As MDGU was unable to exert causal power, the level of formal commitment beyond the Directive 005/2012 relied on individual sectoral leadership who could anticipate positive dividends from OGD.

The level of compliance is shown in Table 7.3. Within a period of three years (up to March 2015) public agencies showed different levels of publication and format types. While some agencies disclosed a significant amount of datasets, others did not even release the number of datasets requested by the Directive 005/2012. Although with a predominance of machine-readable formats, there is also a significant number of non-machine-readable datasets. This reflects the social relations between MDGU and sectoral agencies observed in this section as well as the resistance behaviour of the latter.

7.4. Social integration circuit of power

7.4.1. Introduction

The Circuits of Power offer a structural overview of power relations in order to implement and ultimately institutionalise an initiative. The episodic circuit introduced
previously provides an internal picture of how social relations have been shaped by causal power exerted by MDGU over sectoral publishers in order to disclose OGD. Both MDGU and sectoral agencies act under a specific arrangement of capacities that legitimise them to exert power and resistance respectively. However, the insights offered by the episodic circuit of power would be incomplete if this work did not analyse how these agents have achieved the legitimacy to act in that way.

Table 7.3: Number and formats of published OGD datasets available in March 2015

<table>
<thead>
<tr>
<th>Ministry/Public Agency*</th>
<th>Machine-readable formats</th>
<th>Non-machine-readable formats</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XLS</td>
<td>CSV</td>
<td>XML</td>
</tr>
<tr>
<td>Ministerio del Interior</td>
<td>59</td>
<td>210</td>
<td>3</td>
</tr>
<tr>
<td>Ministerio de Salud</td>
<td>78</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Economía</td>
<td>6</td>
<td>70</td>
<td>1</td>
</tr>
<tr>
<td>Ministerio de Hacienda</td>
<td>16</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Desarrollo Social</td>
<td>16</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Ministerio del Trabajo y Previsión Social</td>
<td>29</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Vivienda y Urbanismo</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Justicia</td>
<td>25</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Relaciones Exteriores</td>
<td>22</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Educación</td>
<td>19</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Energía</td>
<td>12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Obras Públicas</td>
<td>13</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Agricultura</td>
<td>2</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Minería</td>
<td>14</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Transporte y Telecomunicaciones</td>
<td>10</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Bienes Nacionales</td>
<td>21</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Ministerio del Medio Ambiente</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ministerio de Defensa Nacional</td>
<td>2</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Secretaría General de Gobierno</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Ministerio Secretaría General de Gobierno</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Servicio Nacional de la Mujer</td>
<td>5</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Consejo Nacional de la Cultura y las Artes</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consejo de Defensa del Estado</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presidencia de la República</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empresas Públicas</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>357</td>
<td>462</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Own elaboration

* Each ministry comprises several public agencies or sub-secretariats

** Datasets in HTML were webpages or links to other websites
Clegg suggests the social integration circuit of power for studying how legitimacy is achieved. This circuit focuses on dispositional power, or the rules that govern meaning and membership in organisations, and which impact on social relations and alliances. Dispositional power plays a relevant role in organisational power analysis as it focuses on the capacities that make a distinction between notions of having and exercising power. These capacities preconfigure the standing conditions needed for episodic power to happen, and legitimise the agents in order to exert or resist power in their social relations. Clegg uses a clear example to understand the relevance of the social integration circuit; a traffic police officer has the authority to stop the traffic, independent of whether in the end he/she does it or not. This authority is embedded in two types of rules: rules of membership, or the formal status that awards standing conditions; and rules of meaning, or the discourses/rationales awarded to the system. In order to favour positive social relations, both rules of membership and meaning need to fit each other and be aligned in order to facilitate the occurrence of dispositional power.

Given these rules of meaning and membership, the social integration circuit also incorporates the obligatory passage points (OPPs), or the ways in which empowered agents have to formalise their power relations with others; what As want Bs to do. A successful institutionalisation process is characterised by OPPs becoming mandatory for Bs, not having any other alternative than the OPP to complete a specific task. In this research, the disclosure of data through the OGD platform is the intended OPP. Consequently, this section is organised as follows; first both rules and meaning and membership are deconstructed, followed by the analysis of OGD as an OPP.

### 7.4.2. Rules of meaning and membership

The purpose of dispositional power is to define a set of capacities that entitle agents to have power, independent of its final exertion. In order to determine the dispositional power of both MDGU and sectoral agencies, CP defines both the rules of membership and meaning associated to these agents in their OGD social relations.

The rules of membership represent the formal organisational status of the agents and are often the foundation for their respective standing conditions. They direct attention
to how an institutionalised system would affect the organisation, especially the composition of groups, roles and hierarchies. In the case of MDGU, its membership is embedded in the way the Chilean Central Government has adopted and institutionalised digital government initiatives. During the period of study MDGU was part of SEGPRES with the mandate of coordinating cross-sectoral digital initiatives and e-Government projects in the Central Government (OECD 2016). However, there is no formal legal document that clearly defines the status of MDGU within SEGPRES. The Unit is not included in the organic law that establishes SEGPRES, thus its specific functions, powers and budget are not legally outlined (RA-03; PSO-04). Indeed, MDGU is only defined as a programme within the annual budget allocated to SEGPRES (PSO-04; PSO-05). In this institutional scenario, MDGU has to set priorities for digital government and coordinate the implementation of relevant initiatives with limited empowerment and resources. As a consequence of these rules of membership, MDGU was not sufficiently influential and it did not have sufficient power to lead digital government initiatives, to request sufficient funding or to promote normative/legal changes. However, the Unit inherited the coordination mandate from SEGPRES, being its main source of legitimacy and authority in the Central Government:

“MDGU does not officially exist, it is only a programme. Indeed, they operate with a programme budget, they do not have a fixed annual budget. All the personnel are hired on an annual contract basis. The only official with authority in the Unit was me; all the others were on a fee basis. Then in political terms it was risky, because all negative externalities were my responsibility.” – Former MDGU Official (PSO-01).

“President Piñera decided to empower SEGPRES by allocating the coordination of all cross-sectoral initiatives to it. This mandate was relevant for e-Government because the previous experience at the Ministry of Economy was a failure exactly because of a lack of legitimacy; how can someone from the Ministry of Economy go to the Ministry of Mining to mandate and implement an e-Government initiative? Instead, the Minister of SEGPRES is a Presidential Delegate, and he/she assumes a slightly higher position within the hierarchy than the other ministers.” – Former MDGU Official (PSO-04).
By contrast, sectoral agencies and their publishers have sectoral organic laws that define their roles and responsibilities. As expected, these agencies have the mandate to fulfil their core responsibilities prior to complying with any other cross-sectoral initiative that is relatively deregulated such as OGD (RA-03; RA-08). Besides, all these agencies act under the principle of public law, which states that civil servants and agencies are only allowed to do what public law authorises them to do (CNC 2003)(RA-03). Under this clause, agencies often feel more empowered to resist rather than support the current format of OGD in Chile (PSO-03; PSO-04). Public agencies also did not have economic resources or dedicated staff to deal with disclosure tasks requested by MDGU (PSO-03; PSP-07; PSP-10).

In terms of the rules of meaning, MDGU and sectoral agencies awarded different and contradictory rationales to OGD that further constrained implementation. As covered in the preceding and the current chapter, there are two dominant meanings for OGD at MDGU. At the operational level, OGD is observed as a low-cost means to deepen the existing transparency framework (PSP-03; PSP-09; PSP-10). The executive leadership, while sharing this vision, regarded OGD as an initiative to boost Chile’s leadership position in openness, modernity and efficiency at both regional and global level (PSO-03; PSO-04) (Gonzalez-Zapata and Heeks 2015). These two meanings were useful to gather political support and overcome to some extent MDGU’s normative/economic restrictions in order to implement OGD. At sectoral agencies, meanings awarded to OGD are diverse and can be categorised in four non-mutually exclusive rationales: OGD was observed as a transparency workload with no further sectoral benefits (PSP-09; PSP-10); OGD was seen as an initiative to boost Central Government’s reputation at the expense of the agency’s own work (PSP-07; PSP-08; PSP-09; PSP-10); OGD was seen as a risk of exposing their limited data quality and, consequently, corruption or mistakes in past policy decision-making (PSP-07; PSP-08; CS-05); and fourthly OGD was regarded as a policy for the Government to establish closer ties to its citizens (PSO-06; PSP-05). As can be seen, there has been a prevalence of negative meanings for OGD at sectoral level, which clashed with the more utilitarian rationales awarded by MDGU. The meanings awarded by these agents help understand why sectoral agencies resisted the adoption of OGD, and may be a source of power resistance observed in the episodic circuit.
Indeed, agencies did not observe a positive outcome from implementing OGD given the limited incentives MDGU put in place to deploy the initiative. Additionally, the different meanings awarded by MDGU and sectoral agencies to OGD compromised the development of collective goals and the formation of alliances to develop a national OGD agenda. Interviewees observed in these conflicting rationales a relevant barrier for the success of the agenda (PSP-09; PSP-10).

7.4.3. Obligatory passage points

The obligatory passage points (OPPs) represent the core of the power relations between As and Bs. In a stable power relation, As define an OPP for Bs to make them follow a particular direction and fulfil a specific set of rules and practices in order to institutionalise an initiative. As its name suggests, the purpose of an OPP is to become a mandatory bridge for Bs in their relations with As, thus making them do something they would not otherwise do. Consequently, the OPPs are an expression of the level of causal power As have over Bs.

In the context of this research, the OPP is the OGD platform. In an ideal scenario, OGD becomes an OPP for public agencies and officials when it is embedded in practices and policies, and is considered valuable and relevant by sectoral offices. This leads to institutionalisation because OGD becomes a mandatory step to disclose public information online. However, current evidence shows that the OGD platform did not become an OPP for sectoral agencies. Indeed, MDGU did not design and implement any strategy to transform OGD into an OPP (PSP-09; PSP-10; RA-03). Instead, the executive level at MDGU implemented it as a complimentary platform to deepen existing means of publication such as sectoral websites or cross-sectoral transparency systems (PSO-03; PSO-04). As suggested in the preceding two chapters, there was an increasing mandate from the Central Government to disclose public data given the expansion of the transparency framework in addition to sectoral efforts to disclose other information such as studies and annual reports. However, neither MDGU nor sectoral agencies observed OGD as the only channel available in the executive branch of the state to systematically disclose public data.
In addition to the lack of strategic objectives for OGD, the evidence of sectoral resistance to comply with the initiative reflects the limited incentives and resources that sectoral agencies had in place at the time the initiative was deployed (PSP-03; PSP-04; PSP-09; PSP-10). Interviewees highlight that, during the period of study, sectoral agencies had different channels to publish and disclose public data, such as sectoral statistics webpages – which usually did not comply with the Directive 005/2012. These platforms allowed agencies to have a higher degree of ownership and flexibility in dealing with datasets, e.g. they were able to track by whom and from where datasets were downloaded, as well as the type of format and license used for the disclosure of data. Indeed, sectoral agencies did not have sufficient institutional resources to deal with expensive data curation and licensing, nor did they have the interest to expand their publication channels at their own expense (PSO-08; PSP-07; PSP-09). The integration of OGD in practices and policies is limited to compliance with the Presidential Directive 005/2012 (Piñera 2012) at the early stage of OGD implementation (PSO-04; PSP-03; PSP-10). During the period of study OGD was not adequately embedded in existing sectoral data disclosure practices or public policies. MDGU has not been able to strategically deploy OGD as an OPP for sectoral agencies. This would require significant institutional efforts to modify existing regulatory, normative and discursive institutions in transparency, access to information and data management. However, as widely covered in this research, MDGU was not empowered enough to carry out such a challenge.

7.4.4. Conclusions
The evidence provided in this section reveals that OGD in Chile did not reach social integration. The social circuit shows differences between MDGU and sectoral agencies with regard to the specific meanings they awarded to OGD as well as the rules that define their level of membership and access to political and economic resources to implement or resist the implementation of OGD respectively. MDGU was not able to carry out an OGD development process that generated integrated organisational norms and values to frame positive social relations between the Unit and sectoral agencies. In addition, MDGU is established upon a limited legal and institutional framework which helps explain its limited standing conditions (political support, economic resources, and legal hierarchy, among others) constraining the Unit’s empowerment, legitimacy and
authority, as well as the limited definition of roles and responsibilities for OGD at sectoral level. With rules of membership being weak at sectoral agencies and MDGU, there is a prevalence of negative meanings awarded to OGD by public agencies in the form of a nuisance in their routine with no further sectoral benefits. This tension was never approached by MDGU in the form of creating incentives to positively change rules of meaning at sectoral agencies. The limited social integration of OGD is evident with OGD never becoming an OPP for sectoral agencies. Indeed, OGD was never intended to become mandatory for public agencies, nor was MDGU empowered to generate regulatory and normative conditions to transform OGD into a mandatory initiative.

7.5. **Systemic integration circuit of power**

7.5.1. **Introduction**

The Circuits of Power incorporates a third circuit to understand how discipline is exerted to achieve the implementation of an initiative and achieve its objectives. The circuit of systemic integration deals with facilitative power; As’ power is facilitative because As decide the collective goals that are to be facilitated by Bs’ actions. Hence, power is understood in terms of its capacity to create and achieve shared goals. In particular, the systemic integration circuit deals with the techniques of production and discipline that make an information system exist, operate, and become institutionalised.

The systemic integration circuit focuses on two specific areas: the techniques deployed by As to monitor and ensure Bs’ compliance with OGD; and Bs’ working practices and tasks that are affected by OGD implementation. On the one hand, the techniques of discipline are forms of disciplinary practices through surveillance of organisational members embedded in the normative frameworks for OGD. Hence, OGD can become itself a form of power to be instilled in sectoral agencies. On the other hand, the implementation of OGD affects Bs’ existing working practices. Given these practices can become a form of power tension, it is crucial to understand how OGD is embedded in existing organisational cultures and practices. Hence, the correct alignment of these two forms of facilitative power will allow the systemic circuit to occur and integrate with the episodic and social integration circuits previously outlined.
7.5.2. Techniques of discipline and production

The role of facilitative power is to define specific techniques that will ensure sectoral agencies’ compliance with OGD and, at the same time, the adequate integration of specific OGD tasks into existing working practices and culture in each sectoral agency. In order to understand the presence of facilitative power in OGD, CP defines both techniques of discipline and production, in order to determine the influence of organisational standards on OGD working practices.

Regarding the techniques of discipline, the strategy undertaken by MDGU during the period of study was to only monitor publication activities of sectoral agencies, in addition to the minimum legal requirement of the Presidential Directive 005/2012 requesting all sectoral agencies to publish five datasets (PSO-03; PSO-04; PSP-09). Indeed, MDGU did not define any long-term form of regulatory compliance or sanction, thus limiting the exertion of facilitative power over sectoral publishers:

“We did not have any effective supervision of OGD publication. We observed that sectoral agencies did not effectively comply with the Presidential Directive; most of the datasets were irrelevant, or some agencies released one dataset divided into 5 years of data to comply with the minimum publication requirement of five datasets. In these cases we did not define sanctions and we did not have any empowerment to enforce the correct compliance of the Directive. Then you can see that there was an attitude to merely fulfil the minimum requirement of the normative, and that OGD represents much more work than just complying with a regulation.” – Former OGD practitioner at MDGU (PSO-10).

Instead, MDGU adopted softer approaches to advise and follow-up on data practices given their limited standing conditions, with only minor differences being observed between the two presidential terms covered in this study. During Piñera’s government, MDGU focused mainly on compliance with Directive 005/2012 (Piñera 2012). As presented in section 6.2.1, Chilean presidential directives have the legal status to be complied with by all sectoral agencies. Although the Attorney General is supposed to monitor compliance with legislation by public agencies, this does not occur as often as expected given the limited capacities and resources available to the attorney as well as the prioritisation of other areas of control. MDGU set sectoral agencies a deadline to
comply with the Directive, and appointed an OGD practitioner to deal with consultations and requirements from sectoral agencies during that period.

“As a first step in this direction, services from the Executive branch should release at least five datasets of relevance related to information that is not mentioned in article 7 of the law 20.285 and that is mentioned in article 10 of the law 20.285. These datasets should be released through the OGD catalogue within 60 days from the date this Directive is declared. The relevance of datasets should be defined based on their utility for citizens, including data on branches, socio-demographic statistics related to the agency, statistical information on controlled entities, among others. The information should be published with no restrictions that could impede its download or reuse, and in open formats, independent of the platform, so that it can be retrieved, downloaded, visualised, indexed and searched for by any application.”

Although MDGU was not able to exert facilitative power to enforce compliance with the Directive, the response rate of sectoral publishers was high, increasing from around 200 datasets in 2011 to around 1100 by the end of 2012 (PSP-10). However, after this period MDGU did not have any regulatory support to hold sectoral agencies accountable for their participation in cross-sectoral, collective initiatives such as OGD, having only limited surveillance through the OGD control dashboard which reported agencies, datasets, and dates of publication (PSP-09; PSP-10). Based on this information, MDGU occasionally communicated with agencies with limited publication rates to increase their publication levels, but with no facilitative power to enforce OGD disclosure (PSO-03; PSP-10). A similar dynamic can be observed during Bachelet’s government in 2014; the limited capacities of MDGU to exert facilitative power did not change with the new government. During this period, MDGU did not deploy any form of control over OGD disclosure, but defined other activities such as workshops and negotiations for sectoral publication agreements to foster the engagement of sectoral agencies and a positive valuation of OGD (PSP-03; PSP-09; PSP-10). However, due to the lack of facilitative power held by MDGU and the limited interest and engagement shown by sectoral agencies, this approach required significant time and effort. Given that sectoral agencies had better standing conditions to resist OGD, often these negotiations were cancelled or required further discussion time (PSP-03; PSP-09; PSP-10; PSO-08). As a consequence
of the lack of facilitative power held by MDGU as well as the better standing conditions for sectoral agencies, OGD did not become a tool to instil discipline from MDGU towards sectoral publishers; i.e. MDGU was not able to deploy specific techniques to ensure OGD compliance, with minimum monitoring practices that encouraged rather than regulated data disclosure through the OGD platform (PSP-10).

In terms of the techniques of production, there is evidence that OGD altered existing tasks related to data management and transparency procedures without incorporating sectoral incentives to generate collective goals for OGD appropriation. Indeed, several OGD practitioners saw how their routines were altered by an increasing amount of work related to data curation, publication and decision-making. However they did not receive additional economic resources or incentives that could have facilitated the implementation of these data processes (CS-02; CS-07; PSP-06; RA-12). This limited approach was the main reason for the negative perception of sectoral OGD practitioners given the workload that OGD practices produced, acting as a barrier for the development of collective goals for OGD development. As observed in the social relations between MDGU and sectoral agencies, the implementation of OGD required the definition of sectoral publishing roles that assume internal disclosure processes at sectoral agencies. Although MDGU defined the roles for editors and publishers in the technical guidance, these tasks were often allocated to existing civil servants according to the sectoral meaning awarded to OGD by the senior executive level, e.g. transparency officials, chief technology officers, or suggestion office officials (PSP-09; PSP-10). However, dedicated OGD officials were not appointed at any sectoral agency, thus increasing significantly the workload of those officials who were assigned OGD related tasks in addition to their actual area of work.

Additionally, OGD officials did not have any type of ownership over the datasets to be disclosed, playing only an operational role to upload datasets to the platform. As a result, OGD did alter existing working practices of civil servants involved in OGD implementation, who often observed OGD as an extra workload with no further sectoral benefits. Limited systemic integration is reflected in the resistance towards OGD among sectoral agencies that was generated by the lack of strategic incentives that MDGU provided to reduce disagreement and encourage compliance (PSP-03; PSP-06; PSP-10;
The role of organisational power in OGD

PSO-06). As stated in this chapter, MDGU promoted OGD solely as an extension of the transparency agenda and as a method to reduce passive transparency requests. However, sectoral agencies anticipated the difficulties of transforming these aims into practice, and the limited impact that OGD may have for their sectoral agendas. Interviewees highlight the minimal capacity of MDGU to generate and align sectoral incentives for OGD adoption, failing to create systemic integration (PSP-09; PSP-10). MDGU officials did not consider any participatory method or capture of sectoral perceptions on OGD during the period of study, constraining the integration of sectoral meanings and the MDGU implementation process as a collective goal.

7.5.3. Conclusions

The evidence presented in this section demonstrates that, similar to the limited episodic and social integration circuits, OGD in Chile did not achieve systemic integration either. The systemic circuit shows MDGU’s inability to implement adequate techniques of production and surveillance given its limited standing conditions, leading to a misalignment of both the actions and perceptions by sectoral agencies with MDGU’s objectives for OGD. The limited implementation approach undertaken by MDGU did not consider the generation of sectoral incentives that could have fostered higher levels of adoption by sectoral agencies, nor did it define specific monitoring and sanctioning methods to enforce the agencies’ compliance beyond the Presidential Directive 005/2012. Instead of promoting collective objectives for OGD, the implementation process adopted by MDGU laid the ground for the creation of sectoral and other particular interests, thus becoming a source of institutional resistance to the initiative. As a result, OGD was not inscribed in sectoral agencies’ routines nor did it become a source of power itself which, based on Clegg and CP, is a clear sign of the limited level of institutionalisation that OGD achieved during the period of study.

7.6. The role of organisational power in OGD

Findings and insights revealed by the Circuits of Power framework unveil the complex and crucial role that power plays in the process of OGD development (see summary of findings in Table 7.4 and Figure 7.5). The case of OGD in Chile shows how power does not flow adequately across the circuits of power, hence preventing the
institutionalisation of OGD during the period of study. In line with the previous chapter on the influence of historical politics, OGD development is a deeply political rather than only technical process. With public data being at the core of this initiative, OGD requires an implementation process that clearly links public data and power, in order to address the politics of data; as evidence suggests, “[public] data is not merely an intellectual commodity but also a political resource” (Keen 1981, p.24) whose distribution through OGD affects the interests of particular groups within the Central Government, and which requires a strong authority and legitimacy of the implementing unit to generate collective goals and lead a smooth implementation process.

Evidence highlights how, in the case of Chile, organisational power was not adequately addressed in order to facilitate an institutionalisation process for OGD, both in terms of the authority and empowerment of MDGU to develop a long-term OGD strategy, as well as to manage the politics of data emerging from sectoral agencies in the form of resistance behaviour. As public data is a complex source of power, evidence suggests that MDGU had a limited strategy in place to institutionalise OGD at sectoral level. However, the strategy undertaken by MDGU seems to be coherent and a logical acknowledgement of the exogenous contingencies, the dominant internal political aspirations to implement an OGD initiative, and the extent and nature of power that was needed for the purposes they pursued. Evidence suggests that the Government may have been successful in projecting efficiency, modernity and regional leadership through OGD, yet there was not a comprehensive initiative to take full advantage of public data disclosure.

Arguably, MDGU did not have sufficient capacities as leading agency to implement a comprehensive OGD policy, nor did it consider the complex organisational pluralism that constrained the development of OGD as a collective goal. With governments being the most complex and plural type of organisations, OGD implementation requires strong leadership that deals with the different interests of sectoral agencies, as well as the resistance that these show during this process. Instead, the limited capacities and awareness demonstrated by MDGU in OGD implementation fostered the development of sectoral agendas and interests that constrained a strategic approach to public data
The role of organisational power in OGD disclosure. However, a more comprehensive approach to OGD would have likely needed a broader set of exogenous contingencies and driving forces for OGD.

Table 7.4: Summary of Findings for the Circuits of Power and OGD

<table>
<thead>
<tr>
<th>Assumptions regarding OGD adoption</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exogenous Contingencies</strong></td>
<td>The reasons to implement OGD arose from the pressure from civil society and international organisations, the expansion of the transparency agenda and a dominant political aspiration of modernity, efficiency and leadership to be projected through OGD. Among these, there was a greater dominance of internal drivers to implement OGD.</td>
</tr>
<tr>
<td><strong>Episodic Power Relations</strong></td>
<td>Only being backed by the Presidential Directive 005/2012, MDGU displayed limited episodic/causal power over sectoral agencies to implement OGD. MDGU did not have favourable standing conditions such as political and economic resources to enforce OGD implementation, leading sectoral agencies to exert power resistance in the form of limited OGD compliance.</td>
</tr>
<tr>
<td><strong>Social Integration:</strong></td>
<td>There is a gap between the capacities and rationales used by MDGU and the perceptions of authority and views of sectoral agencies with regard to OGD. The Presidential Directive and the allocation at SEGPRES awarded limited political authority and legitimacy to MDGU, which was insufficient to fully integrate OGD into social practices and rationales. There was neither discursive nor normative adoption of OGD to transform it into the main means of data disclosure in the Central Government.</td>
</tr>
<tr>
<td><strong>Obligatory Passage Point:</strong></td>
<td>OGD did not become an OPP as sectoral agencies had other means to publish their datasets. MDGU did not specifically address OGD to become an OPP in order to systematise data disclosure. Sectoral agencies have higher ownership over datasets through their own publication methods.</td>
</tr>
<tr>
<td><strong>Systemic Integration:</strong></td>
<td>OGD did not reach systemic integration as MDGU was not able to develop specific techniques to monitor OGD compliance and OGD was not perceived as a collective goal for sectoral agencies. OGD was not inscribed in sectoral agencies’ routines nor did it become a source of power.</td>
</tr>
</tbody>
</table>

Source: Adapted from Smith et al. (2010)
The influence of power on OGD

Figure 7.5: Institutionalisation of OGD in Chile through the Circuits of Power

Source: Own elaboration based on Silva and Backhouse (2003)

MDGU

Sectoral Agencies

Dispositional Power

Facilitative Power

Causal Power

A makes B publish OGD

Institutionalisation

After repetition

MDGU cannot enforce sectoral agencies

Social Integration

Systemic Integration

Disruptions in the three circuits limit the routinisation of OGD and, consequently, its institutionalisation.

MDGU does not have any monitoring power to control OGD compliance, and OGD is not embedded into sectoral working practices. The unit and sectoral agencies show resistance and stand against the initiative. MDGU has limited official power to control sectoral agencies and does not collect sectoral OGD.

The influence of power on OGD
From the evidence presented in this chapter, three main themes emerge with regard to the role and influence of power in OGD implementation: the missing role of legitimacy, authority and incentives to institutionalise OGD in Chile; the lack of a strategic approach from MDGU to deal with the politics of data; and the disturbances in the circuits of power that undermined the institutionalisation of OGD in Chile.

### 7.6.1. The missing role of authority, coalition-building and incentives for the institutionalisation of OGD

The episodic and social circuits of power show how limiting the absence of strong authority and coalition building was, restricting the implementation of OGD in Chile. Literature on information systems suggests that a “fixer” is needed when an initiative is to be implemented in complex and plural organisations where the politics of data has a major influence on this process (Silva and Backhouse 2003). In the case of OGD, the fixer would be a unit or agent with strong leadership, formal authority and organisational resources to negotiate with agents with different interests, build coalitions to transform OGD into collective goals, and develop sectoral incentives that increase the appropriateness of OGD – all these leading to a legitimised initiative in sectoral agencies. Instead, MDGU had limited institutional authority that mainly came from the political legitimacy awarded to SEGPRES, and did not define strategies to legitimise OGD as a collective, cross-sectoral initiative. As reflected in the literature review chapter (see section 2.3), OGD has the potential to deliver political impact by redistributing power through a break-up of public data monopolies and individual interests. The case of Chile shows that OGD is a critical resource and a source of power at sectoral agencies. In order to transform sectoral interests into collective goals, OGD requires a central, legitimised and empowered leader that can effectively minimise the inherent pluralism and counter-implementation that such an initiative entails.

Literature on power and information systems suggests that critical initiatives need to be recognised and legitimised by both designers and users as a political intervention. In the case of Chile, although MDGU and sectoral agencies were aware of the political dimension of OGD – as both parties exerted causal power and power resistance respectively – the Unit faced disclosure negotiations with sectoral agencies from an extremely disempowered position. However, evidence in this chapter suggests that data
disclosure negotiations need to be handled by an empowered agent who is well connected to senior management. Cross-sectoral and large-scale initiatives such as OGD require these negotiation processes to be based on coalition-building in the form of collective goals. This partnership approach seeks to control the negative externalities of data disclosure. This role cannot be undertaken by non-legitimised officials who do not have formal powers to ensure adoption and compliance.

In order to facilitate the development of OGD as a collective goal, MDGU could have fostered sectoral incentives that would have increased the legitimacy of the initiative and thus contained resistance behaviour during the disclosure process. Such a wider policy would improve information flows, derive OGD from a comprehensive interoperability initiative, make economic resources available to fund costs related to data disclosure, and target specific public service delivery issues at sectoral agencies to be solved by using OGD. The benefits of information technology initiatives are not necessarily as evident to other users as designers presume. MDGU should have forged closer ties to users and adopters to foster OGD appropriateness. However, MDGU showed a changing approach towards the control of externalities arising from or related to power resistance, reaching from publishing information without sectoral authorisation at the initial stage through to directives and the signing of bilateral agreements. This limited approach, indeed, questions the extent to which MDGU sought to implement a comprehensive OGD initiative. Evidence suggests that appearance of OGD was more important than a comprehensive initiative. Being aware of both the politicalness of OGD and its own limited formal authority to deal with the politics of data, the Unit followed an approach that favoured a quick-win initiative and that did not overtly demonstrate their lack of power. By neglecting the relevance of authority, coalition building and political incentives, the negative political background against which OGD was developed was not fully addressed, constraining the institutionalisation of OGD.

7.6.2. The lack of a strategic approach to OGD to address the politics of public data

One of the key insights from the episodic circuit of power is that OGD development is significantly influenced by the politics of data. As observed in the power resistance
section, sectoral agents’ behaviour is influenced by the redistributive role OGD has over data monopolies. Although CP does not clearly addresses who is benefiting from power redistribution caused by data disclosure, it does reflect on who are the public agents affected by this process. Power resistance in OGD shows that public data is seen as a political resource rather than a transactional commodity by several sectoral agents for whom public data symbolise a resource of status that boosts authority and shapes power relationships. Data ownership and the privilege of data access also represent a source of independency for sectoral agencies. Their capacity to influence and their political status depend on their hegemony over sensitive data given the authority data control awards. All in all findings thus demonstrate that OGD in Chile is a sensitive political resource and requires a robust strategy that deals with the inherent politics of public data.

Evidence reported in this chapter shows that MDGU adopted a limited strategy that did not effectively deal with the politics of a socio-technical system. The design of OGD never considered sectoral meanings and visions about how data disclosure may affect sectoral agencies. MDGU did not analyse nor consider the internal circuits of power and did not design an initiative that dealt with high levels of resistance. Instead, the Unit prioritised a quick-win initiative, which disregarded a tactical approach to take on board sectoral views on public data disclosure. This limited strategy occurred as MDGU attempted to simplify the implementation process to make it more manageable, however disregarding key political aspects.

OGD in Chile was lacking a strategic approach that could have taken on board the constraints caused by the politics of data. For instance, OGD policies require a small-scale and phased process with clear objectives being led by an actor with sufficient organisational resources to negotiate at sectoral level. This would have likely produced better and long-term outcomes. Such a strategy could have evolved into an iterative development methodology that would have increased sectoral agencies’ participation and generated appropriateness from an early implementation stage, thus reducing the risk related to the politics of data. A strategic approach can be described by deconstructing CP: in addition to strong authority and legitimacy to facilitate causal power and contain resistance (episodic circuit), OGD would have required a) alignment
of objectives and meanings regarding OGD between MDGU and sectoral agencies; b) empowerment of the Unit to carry out such an initiative (social integration circuit); and c) specific techniques to monitor OGD compliance and embedded OGD routines at sectoral agencies (systemic integration). An OGD strategy that couples the three circuits of power would increase the likelihood of institutionalising OGD in a complex organisational environment such as the Chilean Central Government.

However, evidence suggests that a long-term and comprehensive OGD initiative was not part of MDGU’s objectives. OGD implementation was mainly pushed by MDGU, and it was observed as a voluntary collaboration of sectoral agencies with no further appropriateness. Instead, the Unit adopted a strategy characterised by an emphasis on showing quick results, with unclear objectives and insufficient resources that did not correctly address the complex politics of data observed in the case of Chile. Arguably, the approach undertaken by MDGU may not be seen as a failure but as a logical recognition of the circumstances of both image-oriented exogenous contingencies and limited standing conditions to carry out an OGD initiative.

7.6.3. Disruptions in the circuits of power undermined the institutionalisation of OGD

The theoretical framework provided by CP facilitates understanding of OGD institutionalisation from a power perspective. Under CP, institutionalisation occurs when the three circuits (episodic, social and systemic) are stable enough for power to flow regularly. In contrast, non-institutionalisation occurs when one or several circuits are disrupted, causing short circuits across CP power grids. The case of Chile shows how power did not systematically flow across the circuits of power given their instability; i.e. episodic, social and systemic integration circuits were easily disrupted by changes to ruling coalitions and their programmes, limited authority and resources, and an inconsistent strategic approach that went from one-sided publication to a short-term directive, all converging in the form of power resistance towards OGD compliance observed at sectoral agencies.

Both the social and systemic integration circuits failed, i.e. disrupted the flow of power, and hence inhibited operation of episodic power. The social integration circuit observes the role of rules of membership and meaning, in order to award authority and legitimacy
to MDGU. Through these rules the Unit can develop collective goals that facilitate the institutionalisation of OGD. This circuit breaks down given that MDGU only obtained political legitimacy to implement OGD from SEGPRES, in addition to the limited capacities of the Unit to transform OGD into collective goals (the way in which MDGU and sectoral agencies legitimise OGD implementation). The systemic integration circuit observes the role of techniques of surveillance and discipline and the embeddedness of OGD practices, in order to facilitate OGD routinisation. However, this circuit fails given MDGU’s limited surveillance capacities and resources to incorporate OGD practices into sectoral routines. As Figure 7.6 depicts, both social and systemic circuits reached the highest level of integration during the implementation of the Presidential Directive 005/2012, when objectives, practices and MDGU’s legitimacy and authority were relatively aligned, in order to facilitate the implementation of OGD. However, the short-termism of this Presidential mandate did not create the power conditions needed to extend this political momentum into the longer term. The figure shows higher systemic than social integration: evidence suggests that the Directive played a more relevant role in OGD compliance than in aligning objectives and meanings for OGD that may have facilitated the adoption of OGD.

The consequences of the disruptions in these two circuits were the instability of the episodic circuit of power, as MDGU was not able to fully exert causal power over sectoral agencies; i.e. MDGU cannot force sectoral agencies to release relevant, sensitive and high quality public datasets on a regular basis – in other words, MDGU cannot transform OGD into an obligatory passage point for sectoral agencies in their data publication procedures. The limited legitimacy, authority and surveillance capacities of MDGU had a significant impact on its weak standing conditions and constrained causal power. Collective goals and persuasion techniques to make sectoral agencies disclose OGD were constrained, increasing the likelihood of resistance behaviour at sectoral agencies. The critical impact of disruptions in these circuits is also reflected in the way OGD is contested by sectoral agencies; resistance behaviour in OGD emerged given the limited standing conditions of MDGU to exert causal power over sectoral agencies.
The disruptions observed in the three circuits of power led to the limited institutionalisation of OGD during the period of study. As Clegg suggests, information systems become institutionalised when power flows across stable circuits, a process that leads towards the routinisation and embeddedness of practices associated with the systems. Following this premise, the institutionalisation of OGD can be understood as the routinisation of its practices, resulting in OGD being taken for granted by sectoral agencies. These are thus less likely to contest OGD as they see its benefits outweighing the associated costs. However, this level of embeddedness was not achieved during the period of study, and consequently OGD has not sufficiently been institutionalised to date resulting in the lack of a consistent and systematic public data disclosure process.
7.7. Chapter summary

The power analysis here conducted through the Circuits of Power shows that OGD has a limited level of institutionalisation during the period of study. The limited empowerment of MDGU to mandate sectoral agencies to disclose OGD, to achieve collective goals for its implementation, and to monitor its compliance, reflects the limited institutional capacities that MDGU had during the period of study. MDGU addressed the implementation of OGD from an extremely weak power position that led to sectoral resistance and limited levels of compliance. The Presidential Directive 005/2012 is observed as a key source of power for MDGU, but its limited validity also weakened MDGU’s position of power beyond its basic compliance.

The argument of this chapter is to determine to what extent organisational power has influenced the implementation of OGD in Chile. Evidence demonstrates that power plays a significant role in the institutionalisation of OGD. As OGD is a political resource, and its redistribution through data disclosure processes affects sectoral interests and power positions, OGD implementation should be designed with these politics of public data in mind. In order to be able to manage the negative externalities of OGD with regard to the politics of data, MDGU would have needed favourable standing conditions that could have provided the Unit with increased causal power. By contrast, the absence of causal power and the limited standing conditions produced sectoral resistance behaviour that compromised public agencies’ compliance with OGD. Additionally, the social and systemic integration circuits demonstrate the limited institutional environment in which OGD was placed, and help to understand OGD development beyond the direct causal power occurring in the episodic circuit; i.e. it allows us to see the bigger picture of organisational politics given the detailed analysis of facilitative and dispositional power in addition to the causal power observed between MDGU and sectoral agencies.

Finally, empirical evidence and analysis conducted in this chapter demonstrates CP’s relevance to understanding the politics of OGD from an organisational power perspective. Insights from the historical institutional analysis conducted in Chapters 5 and 6 show the strong influence of Chilean institutions in MDGU and, as a consequence, in OGD. The analysis provided by CP supplements this historical analysis by unveiling the
The influence of power on OGD

complex role of organisational power in its causal, facilitative and dispositional types to better understand the politics of OGD in Chile.
“It's difficult to imagine the power that you are going to have when so many different sorts of data are available.”

– Sir Tim Berners-Lee

Chapter 8: Conclusions

8.1. Introduction

This research answers the following two questions related to the Chilean OGD initiative (alongside the question on developing a suitable research framework which was answered in Chapter 3): How do historical political institutions influence the development of OGD; and how does power influence the development of OGD? Whereas most of the current research and advocacy highlights the transformative role of OGD in shaping political institutions, this project aims at understanding the opposite direction of influence: How have power and historical politics affected the development of OGD in Chile? Empirical evidence and findings presented in the preceding three chapters demonstrate that OGD is significantly shaped by existing political institutions and organisational power at two levels: at the macro level (strategy and policy), OGD is influenced by historical political institutions; while at the micro level (internal data disclosure practices and procedures), it is influenced by agents’ power.

In this chapter conclusions are drawn on four aspects: firstly, a summary of key findings and contributions of the research; secondly, methodological implications; thirdly, policy implications for practitioners and governments implementing OGD; and finally the outline of a future research agenda in the matter.

8.2. Summary of empirical findings

This section summarises the research findings with reference to the research questions. Based on the preceding empirical chapters, key evidence and discussions related to this research are included.
8.2.1. How do political institutions influence the development of OGD in Chile?

The literature studied in section 2.3 shows the relevance of understanding OGD from a political perspective given the hypothetical and in parts empirically proved relationship between OGD and political institutions. Indeed, OGD initiatives are embedded in a certain institutional arrangement (i.e. a set of regulatory, normative and cultural-cognitive institutions in digital government, transparency and access to information, and data governance) with long institutional trajectories and context-dependent institutional features that determine the extent of implementation and impact of OGD.

As previous literature on e-Government (Smith 2011; Yang 2003; Fountain 2001), transparency frameworks (Scrollini 2015; Janssen 2011b), open government (Harrison et al. 2012) and public sector information (Janssen 2011a) suggests, findings from this research have demonstrated that OGD initiatives are significantly influenced by the institutions that host them, a hypothesis suggested but not empirically proved by Davies and Bawa (2012). Indeed, OGD intervenes in political frameworks and affects political spaces and interests, with foundational institutions having a relevant role in OGD development. This assumes that OGD should be studied from a macro-level perspective taking into account strategy, policies and political institutions. However, little attention has so far been paid by scholars to understand how political institutions shape OGD initiatives.

Hence, the first question answered in this research looks at the extent to which political institutions influenced the development of OGD in Chile. This analysis was conducted considering Historical Institutionalism, Path Dependency and using a self-elaborated model of institutionalisation. Given the long timeframe selected for this study as well as the large amount of primary and secondary data used in this process, this analysis has been divided into two phases in order to provide a clear narrative for the reader: Chapter 5 presented the institutional trajectories pre-OGD (from 1990 to 2011) including particular institutional features and paths that are likely to be replicated by future innovations in the intersection of digital government, transparency and access to information, and data governance. Subsequently, Chapter 6 analysed OGD from a historical perspective to determine the extent of influence of pre-2011 institutional
features and paths on the development of OGD. The findings presented in these chapters show that, indeed, \textit{the development of OGD in Chile has been strongly influenced by the historical trajectories of digital government, transparency and access to information, and data governance institutions.}

The first part of this analysis (which comprises Chapter 5) provides an extensive historical overview of the three institutional trajectories that converge in OGD, as well as the analysis of their key institutional features and paths prior to 2011. By conducting Path Dependence analysis, this work revisits historical political institutions in Chile that have had a significant influence on the way OGD has been implemented. The period 1995-1999 is defined as the time when the critical junctures occurred. The corruption case in Codelco and the institutional agenda for modernisation and anti-corruption (which was characterised by the symbolic approach to counteract corruption cases) are identified as the historical triggers of a broad institutional agenda in digital government, transparency and access to information and data governance. The structural persistence period (a time when institutions tend to stabilise) was identified from 2000 to 2005. This period was characterised by the institutional progression of these three trajectories under a similar institutional framework as defined during the critical juncture period.

The reactive sequence period (when new events lead institutions to adapt to new circumstances) was identified from 2006 to 2011. This period observed a radical positive change in transparency with the implementation of a comprehensive access to information framework, albeit irregular progression of e-Government and data governance institutions.

The outcome from this period of study is the limited institutionalisation of the three institutional trajectories. Empirical evidence demonstrates that pre-2011 institutions were largely characterised by more symbolic than material features, with emphasis on short-term practices and rationales rather than long-term strategies and public policies. Additionally, there is evidence that these institutions held low but sufficient levels of resources to carry out initiatives at an operational level, and were mostly driven by incentives related to the projection of an image of modernity and efficiency. Overall, significant levels of symbolism and limited resources resulted in a weak institutionalisation of these trajectories up to 2011. Moreover, these trajectories
developed institutional paths that would likely constrain future innovations emerging from the intersection of the three trajectories analysed in this study.

The second part of this analysis in Chapter 6 studies the impact of these historical institutional trajectories on the development of OGD in Chile. Previous research on digital government and transparency claimed that new initiatives are context-dependent and shaped by existing institutional arrangements (Fountain 2001; Ahn and Bretschneider 2011). This work has confirmed these claims in the context of OGD in Chile; a perspective that has widely been neglected in dominant OGD research trends which have largely focused on socio-technical benefits and barriers. Empirical evidence shows that OGD in Chile has mostly progressed on the same paths as its foundational institutions, and has replicated similar institutional features to those observed in the path dependence analysis conducted in Chapter 5, and which leads to the conclusion that OGD has been strongly influenced by Chilean political institutions in digital government, transparency and access to information, and data governance. Similar to the pre-2011 institutional analysis, there has been emphasis on symbolic rather than material institutional features in OGD, leading to a weakly-institutionalised initiative during the period of study. Indeed, OGD has been framed by symbolic regulatory institutions that do not fully regulate public data disclosure in open and machine-readable formats, and it has been embedded in short-term strategies that are subservient to and highly dependent on domestic politics and direct presidential support. Moreover, OGD has been developed with limited resources, while the driving political incentives for its development and implementation primarily centred on two aims: positioning Chile (and the Government) as a global leader in the openness and modernity agenda, and reducing negative bureaucratic externalities from the existing institutional transparency framework. The symbolism awarded to OGD is reflected in its weak institutionalisation to date, which is characterised by limited engagement of sectoral agencies in data compliance, an emphasis on quantity over quality of published datasets, and a lack of strategies to foster data reuse and impact delivery from public data disclosure. Overall, OGD is embedded in a limited institutional framework which, in line with the empirical evidence provided in both chapters, has facilitated the OGD initiative at an operational level but falls short of having a transformative impact. This
evidence confirms the theoretical work of previous researchers, who claimed that OGD initiatives require a strong institutional framework to be sustainable across years (Boyer and Iglesias 2014; Ramirez-Alujas and Dassen 2014), and that highly politicised environments constrain rather than foster public data disclosure (Peled 2011; Cole 2012).

The consequence of this complex institutional framework for OGD is that the initiative has remained weakly-institutionalised and has not delivered significant outcomes as it largely replicates rather than transforms the dominant features of Chilean digital government, transparency and access to information, and data governance institutions. One key conclusion revealed by this research is that the institutional nature of OGD is rooted in existing, long-term institutional politics. Much of the advocacy and discourse supporting OGD speaks of the transformative power that the release of data can cause. In fact, evidence suggests that OGD can help unlock disruptive, positive outcomes in some circumstances. Nonetheless, evidence provided in this research shows that OGD initiatives themselves carry, and likely replicate, the very institutional features they attempt to transform. While existing institutional trajectories may act positively to strengthen the trajectory of OGD when it is part of a robust, cross-sectoral policy framework; they may also constrain the development of transformative initiatives in cases where those institutions are weak and vulnerable to political ideologies, in line with the observations of Peled (2011) and David and Bawa (2012). The case of Chile shows how a long trajectory of short-termism and politicisation of ICT-based initiatives can be reflected in OGD and, therefore, have a major role in its limited institutionalisation. The Chilean case highlights the influential role that Presidents have in shaping trajectories and thus OGD progression. Although this research does not attempt to conduct a detailed study on institutional entrepreneurs, findings reveal that the OGD trajectory has also been influenced by the meanings and leadership awarded to OGD disclosure by the top executive political level, influencing the OGD trajectory by either providing or restricting political backing for the initiative.

Outcomes of this research also demonstrate the importance of taking existing dominant institutions into account, as well as being aware of the key role that top political agents play in the particular ways OGD is developed. It is of particular interest how
contemporary research on OGD has disregarded the understanding of key political aspects of OGD, such as how political institutions frame and shape these initiatives, and rather focused on its socio-technical barriers, as David and Bawa noticed (2012). Certainly, existing institutions condition how initiatives are planned and implemented, but OGD is not necessarily condemned to fully replicate those institutional trajectories. Indeed, the challenge associated with the institutionalisation of OGD is to develop long-term policies that clearly state objectives, resources and responsibilities and, at the same time, evaluate dominant institutions and determine the best approach to overcome any constraining environmental barriers.

8.2.2. How does power influence the development of OGD in Chile?

Literature analysed in section 2.3 suggests that OGD needs to be understood from a power perspective given the hypothetical and limited empirical evidence on the relationship between OGD and exertion of power. OGD initiatives intervene in political interests and shares of power as public data are of high value to politicians and other public sector agents. Hence, it requires empowered and legitimised public agencies as well as committed and aligned sectoral agencies to disclose datasets. Existing evidence suggests that OGD disclosure requires redistribution of power within the public sector. OGD practitioners may resist data disclosure as this process could disempower them and restrain their legitimacy within public agencies (Peled 2014b; Peled 2011). In such cases, Peled suggested that agencies leading OGD implementation require high levels of empowerment and authority to bargain for the disclosure of public data (2011). Indeed, in the absence of empowerment and authority, OGD initiatives can remain weakly-institutionalised and fail to deliver the expected impact. This assumes that OGD should be studied from the micro-level of internal practices and data disclosure processes, in order to understand how agents exert power or resistance during this process. So far, little attention has been paid by scholars to understand how these power dynamics occur and shape OGD initiatives.

Therefore, the second question answered in this research relates to how exertion of power has influenced the development of OGD in Chile. Taking Circuits of Power as the main theoretical lens, the analysis focuses on the period 2011-2015 and identifies the three types of circuits: episodic (causal power at agency level); social integration
Summary of empirical findings

(dispositional power in rules of meaning and membership); and systemic integration (dispositional power in working practices and techniques of discipline). The insights presented in Chapter 7 show that, indeed, the development of OGD has been influenced by the limited exertion of organisational power from MDGU (the leading unit within the Central Government in Chile) in making sectoral agencies commit to OGD disclosure; and by the relative power resistance exerted by sectoral agencies in actively disclosing relevant and high quality datasets.

The study consists of three levels of analysis corresponding with the types of circuits of this theory. The episodic circuit of power identifies the Modernisation and Digital Government Unit (MDGU) as the leading agent which has to exert power to make sectoral agencies disclose public data. Empirical evidence from this circuit shows that MDGU was not able to exercise causal power over sectoral agencies to make them disclose data, as they did not have sufficient authority and empowerment to carry out this task. This was due to the inadequate standing conditions, i.e. low levels of economic resources and authority, held by the Unit, which only inherited the legitimacy to lead OGD from SEGPRES, the ministry responsible for political coordination within the Chilean Central Government and that hosted MDGU. Therefore, sectoral agencies found themselves in a position to exert power resistance to MDGU initiatives. This evidence deepens existing theoretical reflections that Peled (2014b), Cole (2012) and Caidi et al. (2014) made about the role of power in OGD disclosure by identifying how these agents interact in practice, and to what extent they need to be politically resourced to successfully implement or comply with OGD initiatives, aspects that have not been studied to this extent by dominant OGD research to date.

Leading on from the episodic circuit, the social integration circuit defines the conditions and meanings that empowered or disempowered MDGU and sectoral agencies with regard to carrying out and complying with OGD. Previously, Peled (2014b) claimed that public agencies needed to be sufficiently empowered to negotiate data disclosure, as OGD could produce unfavourable conditions for OGD stakeholders. This research has empirically proved that, in the case of Chile, the lack of authority and empowerment was a relevant cause to explain the limited OGD initiative in place. Specifically, the case of Chile shows that OGD stakeholders had different levels of authority and access to
economic and political resources, allowing sectoral agencies to resist OGD implementation. Additionally, there is a prevalence of negative meanings awarded to OGD by sectoral agencies: they perceived the initiative as a disruption to their routine which did not provide further sectoral benefits. MDGU did not approach this tension between data disclosure and sectoral concerns, for example by creating incentives to positively change rules of meaning at sectoral agencies, work that has only been theorised by contemporary research to date. The limited social integration of OGD meant that it has never become mandatory (as an obligatory passage point) for sectoral agencies. Indeed, there has never been an intention to make OGD compulsory for public agencies, nor was MDGU empowered to produce regulatory and normative conditions to transform OGD into an obligatory initiative. This evidence reinforces the demand for strong institutional frameworks for OGD initiatives to succeed (David and Bawa 2012; Peled 2011), and reflects on the importance of taking into account existing political institutions at the time when OGD is designed and implemented.

Finally, OGD did not achieve systemic integration either. MDGU was unable to implement techniques of production and surveillance to regulate sectoral agencies’ participation in OGD beyond the Presidential Directive 005/2012, due to its limited standing conditions. Indeed, MDGU did not provide any incentives to align sectoral goals and rationales for OGD disclosure. Instead, MDGU’s limited approach laid the ground for other sectoral interests, what became a source of institutional resistance to OGD. Consequently, OGD was not embedded in the routines of sectoral agencies, affecting the working practices of OGD practitioners at sectoral level.

The consequence of the limited integration of the three circuits and the disrupted flow of power across them is that OGD remained weakly-institutionalised during the period of study. Empirical evidence highlights the relevance of taking into account the politics of public data in OGD disclosure as public datasets are valuable political resources; conclusions that have only been theorised but not empirically proved by current OGD research. Additionally, findings underline the need to empower the leading Unit with sufficient political and economic resources, so that it can deal with different sectoral interests, generate collective goals and lead a smooth implementation process. However, MDGU did not have sufficient access to political and economic resources, and
hence adopted a coherent strategy in accordance with both the nature and extent of power held by the Unit, as well as the diverse interests and power resistance observed at sectoral agencies. MDGU would have needed favourable standing conditions and increased causal power, in order to be able to manage the negative externalities that OGD produced due to the politics of data and sectoral interests. Furthermore, the social and systemic integration circuits demonstrate the limited institutional environment in which OGD was placed, and reveal the need to understand OGD development beyond the direct causal power occurring in the episodic circuit; i.e. it permits a view of the bigger picture of organisational politics given the detailed analysis of facilitative and dispositional powers in addition to the causal dynamics observed between MDGU and sectoral agencies.

8.2.3. Synthesis of theoretical frameworks and empirical findings

The work conducted in this research can be summarised as the integration of two different institutional perspectives: on the one hand, the macro-level perspective provided by Historical Institutionalism and operationalised through Path Dependency, focuses on how political institutional trajectories progress over years and, through lock-in effects, create patterns that likely determine future innovations along these trajectories. On the other hand, the micro-level perspective provided by the Circuits of Power provides further insights on the organisational power dynamics that shape how different agents interact and upon which institutional conditions they are able to act.

The integration of these two theoretical frameworks has been conducted to understand how OGD has been shaped by local political institutions related to ICTs, transparency and data governance, as well as by dominant power dynamics between publishers and demanders of public data within the public sector. Insights from the historical institutional analysis conducted in Chapters 5 and 6 show the strong influence of Chilean institutions on MDGU and, as a consequence, on OGD, and demonstrate the relevance of understanding the influence of existing institutions on OGD. The precedent institutional trajectories of OGD show a preponderance for limited institutionalisation, politicisation, short-termism, and contingency-driven progression, all of which have led to initiatives reaching only a limited level of institutionalisation and not fully taking off to produce the impact they were supposed to deliver. The presence of these
institutional paths in the three trajectories studied – digital government, transparency and data governance – showed a significant influence on OGD to inherit similar institutional features and to deliver outcomes to a similar extent: OGD in Chile is weakly institutionalised, it has been politicised and implemented mostly with short-term objectives, having an impact on the limited quality and relevance of the datasets that the OGD platform held during the period of study.

On the other hand, the analysis provided by CP supplements this historical analysis by unveiling the complex role of organisational power in its causal, facilitative and dispositional types to better understand the politics of OGD in Chile. The superposition of episodic, social integration and systemic integration circuits opens up the black box of politics at the organisational level, and exposes the power conflicts that emerge given the limited institutional integration of OGD. The limited sectoral participation in OGD can be explained by recurrent disruptions in the circuits of power, not allowing power to flow continuously between MDGU and sectoral agencies. However, these disruptions cannot be fully understood by analysing episodic relations only, and requires taking into account the social and systemic conditions under which these agents act. Hence, the value of CP lies within its holistic power analysis that helps us understand OGD through the direct disclosure procedure, as well as through the power environment in which this initiative is placed.

The novel integration of these two perspectives to understand the politics of OGD provides new insights compared to existing political institutional analysis of OGD. Firstly, this work provides both a macro-level analysis of the historical institutional context in which OGD has been developed, as well as a micro-level analysis of the organisational context in which OGD takes place. This provides a more holistic understanding of how the institutionalisation process of OGD requires to consider both the broader institutional context and the inner organisational power dynamics related to data disclosure processes. Secondly, this approach provides valuable insights on how OGD is institutionally developed, compared to mainstream research that mostly focuses on socio-technical benefits and barriers. Thirdly, this integrated vision helps reflect on how these two levels of analysis determine OGD initiatives, and how they are affected by the institutions they attempt to transform; an aspect that has been neglected in dominant
Key contributions of this research

OGD research to date. Finally, this approach has shown how contemporary research on OGD has neglected to better understand the politics of OGD, while it has focused on socio-technical barriers in order to justify its impact and clarify its implementation. However, by not taking into account the political aspects of OGD, dominant research has been insufficiently rigorous in trying to explain these benefits and barriers. This work has, indeed, helped cover this gap by integrating two different political approaches, and it can be of help to complement contemporary research in attempting to understand how OGD has to be implemented in a certain polity.

All in all, this theoretical approach has proved to be useful and relevant to understand the political and power dynamics around OGD initiatives. It has effectively analysed the dominant institutional trajectories that shaped the OGD initiative – also providing an insightful historical overview of digital government, transparency and data governance in the country – as well as it has deconstructed how power is held and exerted within the local polity. This integrated view can be of help to OGD researchers and policy makers to deconstruct their local institutional arrangement, in order to understand how OGD policies should be designed and implemented.

8.3. Key contributions of this research

Based on the findings provided in the section above, several contributions to the broad body of academic knowledge are derived from this work. They are organised considering the conceptualisation of the influence of power and politics on OGD, the progression of both political and historical research on OGD, and the institutionalisation process of OGD.

8.3.1. Conceptualisation of the influence of power and politics on OGD

The analysis of the literature presented in section 2.3 suggests that scholars have reflected on the role politics and power play in the development of OGD. For instance, Davies and Bawa (2012) suggest that OGD intervenes in political spaces, and hence its development needs to be contextualised according to dominant politics, institutions and communities. Furthermore, Peled (2014b; 2011) highlights that OGD disclosure deals with power issues as it can disempower sectoral agencies. However, the work of these and other scholars does not clearly conceptualise the influence of power and politics on
Conclusions

OGD – a fact that may explain the limited political research on the topic to date. This current work contributes to the body of knowledge as it develops a conceptualisation of the influence of power and politics on OGD. In particular, this work deepens existing knowledge regarding the politicalness of OGD by assuming two perspectives: how authority, legitimacy and sectoral interests affect the implementation of OGD initiatives, and how their host political institutions have a significant influence on determining levels of access to power, legitimacy and resources to effectively implement OGD initiatives.

This research shows the relevance of existing institutions for the success or failure of OGD initiatives, and how in the case of Chile long-term institutional trajectories explain the lack of institutional foundations and access to sufficient levels of power and resources. These historical political trajectories have constrained the development of OGD in Chile and, in other cases, can help explain current success in countries where credible impact from OGD disclosure has been delivered (see policy assessment in World Wide Web Foundation 2016). By disregarding the politics of data, OGD policy makers do not reflect on the relevance of having a leading unit that is empowered and equipped with sufficient resources and that can effectively implement OGD, while developing collective goals and impact oriented data disclosure policies.

This conceptualisation of the influence of power and politics on OGD will help future researchers who wish to follow a more political approach to understanding OGD initiatives, in particular the importance of dominant political institutions and power relationships in the OGD implementation process.

8.3.2. Institutional analytical framework to study the influence of power and politics on OGD

Given the limited political research on OGD, one of the challenges of this work was to identify or develop a suitable conceptual analytical framework that could guide the study of the influence of power and politics on OGD. This work makes a valuable theoretical contribution to the research on OGD by providing a conceptual framework that studies the influence of power and politics on OGD; a topic that has not been adequately addressed by OGD researchers to date. As can be seen in Figure 8.1, two institutional dimensions need to be taken into account at the time OGD initiatives are
designed and implemented. On the one hand, OGD initiatives are influenced by local historical politics, reflected in the role and vision for transparency and ICTs in the public sector, both influencing data governance practices and data disclosure processes. This influence represents the macro-level analysis considering long-term institutional trajectories and institutionalisation processes that determine the institutional context in which OGD is being developed. On the other hand, OGD initiatives are influenced by power exertion between who manages data and who requests its disclosure, as is reflected in the role of authority and legitimacy, personal interests and incentives, and the working practices related to these tasks. This influence represents the micro-level analysis that considers organisational politics and power exertion within data governance and data disclosure processes. It is important to highlight that these institutions shape both, how data is managed and how it is disclosed, not only affecting OGD, but also other related processes.

Figure 8.1: Conceptual framework for the influence of power and politics on OGD
Source: Own elaboration

This conceptual framework has been derived from Historical Institutionalism (Fioretos et al. 2016), operationalised through Path Dependence analysis (Mahoney 2000), and
Conclusions

the Circuits of Power (Clegg 1989). These two theoretical frameworks – widely used in political and social sciences to study political processes but not widely applied to ICT innovations – provide an effective way to implement the conceptualisation of the relationship between power, politics and OGD by identifying the historical political processes and power relationships that determine how OGD initiatives have been implemented.

In particular, this theoretical approach highlights the need to include both political and historical-institutionalist elements in political studies on OGD. By incorporating the role of organisational power and historical political institutions as theoretical lenses, this work extends the dominant research trend of studying impact and socio-technical barriers of OGD. It also provides a better understanding of the dominant historical political institutions that frame the development of OGD, as well as the power relationships that determine OGD disclosure.

Another contribution of this work is the development of an institutionalisation model that helps understand the extent to which OGD initiatives – and arguably any other type of initiative – are institutionalised. The process of institutionalisation is defined in this model as the level of materialism or symbolism observed in dominant related institutions; e.g. a higher degree of materialism of those institutions that frame an initiative, translates into a higher degree of institutionalisation of the initiative itself. This model may be of relevance to scholars who wish to understand the institutionalisation process of OGD and the degree of sustainability of these initiatives according to the materialism observed in their foundational institutions.

8.3.3. Understanding OGD from a political perspective

As the literature review reveals, much of the research on OGD – as well as its practical conceptualisation – is a-political. Research on OGD has concentrated on understanding the benefits and socio-technical barriers related to OGD initiatives, but often it does not consider the politics of data disclosure as a relevant aspect of OGD development. The current work addresses this shortcoming by providing an in-depth analysis and explanation of how power and politics influence the speed, direction and sustainability of OGD initiatives. Indeed, this work demonstrates that OGD initiatives are complex
political interventions rather than only technical interventions, where the politics of public data and ICTs in the public sector are key determinants of the success or failure of OGD initiatives. Insights from this work highlight that OGD initiatives are framed by local polities and institutions, as well as by how OGD stakeholders in the public sector deal with the politics of data and with dominant long-term political trajectories. The evidence presented in this work strengthens the view, expressed by a few sources in the SLR, that politics and power issues need to be considered in order to understand the trajectory of OGD initiatives.

Furthermore, this work highlights specific power and political issues based on the case of Chile, which – at least for this case study – play a vital role in shaping the OGD trajectory. The case of Chile shows how OGD initiatives disregarded key political aspects of OGD disclosure, such as the politics of public data, in an attempt to overcome institutional constraints, favour quick-win initiatives and alleviate the limited power position of MDGU, the leading OGD unit, which faced limited political support and limited access to economic resources to design and implement the OGD initiative. The technology determinism awarded to OGD emphasised the prioritisation of data disclosure over setting the institutional foundations for long-term strategies that could have effectively delivered intended outcomes. The Chilean OGD initiative also shows how initiatives related to openness can be politicised with the aim of fostering dominant bureaucratic rationales on modernity, efficiency, and integrity. This politicisation of OGD reflects the increasing concern about “open washing”, or the way OGD and open government initiatives can be instrumental in promoting cosmetic changes in public governance, while more transformative initiatives are partially disregarded. All these elements, as presented in this work, have had a significant role in shaping the trajectory of OGD in Chile. Although these findings may not be directly, or in their entirety, applicable to other countries, they do reflect the relevance of politics for the implementation of OGD.

8.3.4. Understanding OGD from a historical perspective

The analysis of the literature reveals that much of the research on OGD and its practical conceptualisation is a-historical, and that it does not directly highlight the role of long-term political institutions in creating the conditions for the implementation of OGD and
Conclusions

other related initiatives. This work contributes to the understanding of OGD by clearly outlining the role of historical political institutions in shaping the course and speed of OGD trajectories. As evidence of this research highlights, understanding the role of politics and power requires revisiting long-term historical political trajectories that serve as foundations for OGD initiatives. These context-dependent trajectories determine the dominant rationales and incentives that govern OGD, the levels and types of resources available for its implementation, as well as the regulatory and normative institutions framing OGD policies.

In particular, the case of OGD in Chile reveals the role of dominant long-term historical institutions – such as digital government, transparency and access to information, and data governance – in shaping the paths that precede and lead OGD initiatives in Chile. Although not directly replicable in other contexts and countries, these historical political trajectories help explain the lack of institutional foundations and insufficient political support and resources for OGD implementation. The findings from the Chilean case show that historical political institutions have to be taken into account in order to understand the politics of OGD.

8.3.5. Understanding the sustainability of OGD initiatives

Evidence suggests that research on OGD and its practical conceptualisation has paid little attention to understanding the sustainability of OGD initiatives, e.g. the process of institutionalisation of OGD initiatives to ensure their long-term sustainability. Much of the existing research focuses on the potentially transformative role of OGD in existing institutions, as well as the dominant socio-technical barriers in that process; whereas an in-depth analysis of institutional frameworks, which can ensure the long-term success of OGD initiatives, has attracted little attention by researchers to date. This work contributes to the body of knowledge by clearly stating the need for institutionalising OGD policies and initiatives if they are to be transformative. As OGD initiatives are embedded in long-term political institutions and deal with sectoral interests and positions of power, they need to be designed with local polities and socio-political contexts in mind in order to make them less vulnerable to dominant political ideologies and political programmatic changes.
OGD initiatives require a strong institutionalisation process to shift from individual administrations to their endurance across political transitions. From an institutional perspective, OGD initiatives should be inscribed in regulations and materialised in practices, strategies and collective goals; all of which require the support of the political leadership, economic resources and the development of appropriate incentives. From a power perspective, the leading unit needs to be empowered through authority and legitimacy to deal with the politics of data; i.e. to reduce sectoral power resistance and to facilitate the development of collective goals for data disclosure. In the absence of a comprehensive institutional approach, OGD likely reproduces rather than alters key dominant institutional features and trajectories. This research also reflects on the value of balancing a) the emphasis on OGD practices to create public value and show quick results, and b) the comprehensive process of institutionalisation that makes OGD initiatives sustainable and independent from dominant political ideologies in the longer term.

Evidence from the Chilean OGD initiative highlights the relevance of the institutionalisation of OGD. The case of Chile shows how fragile openness initiatives can be if they are not embedded in existing institutional arrangements that balance regulatory, normative and cultural-cognitive institutional forms. Findings reveal that such a balance was not achieved as the Chilean government focused on gaining political credentials by implementing an OGD initiative, rather than providing institutional foundations for its long-term success. The approach undertaken by the Chilean government shows that an OGD initiative which is solely based on practices may not be successful in the longer term, and advances in OGD and other related openness initiatives may easily be jeopardised by changes in political coalitions and ideologies.

8.4. Policy recommendations

Given the political momentum of OGD initiatives, several actors across the public sector and other organisations may be interested in the theoretical and practical insights delivered by this research. Due to the focus on a single case study, the conclusions are not necessarily applicable to other cases and must be seen within the specific context of the historical trajectories and institutions in particular countries. The following points
may be of help to actors either promoting these institutions or dealing with the constraints observed in the Chilean case. Arguably, major institutional shifts may be required in order to favour the implementation of OGD. There is always the temptation to suggest more drastic approaches such as “open-by-default” or “open-by-design” policies. However, legislation does not magically change political cultures and needs to be embedded in comprehensive institutions that facilitate compliance with laws and regulations. Nonetheless, some key policy considerations can be drawn from this research in terms of enhancing current institutions to implement a more comprehensive OGD policy. Two broader recommendations are suggested: the improvement of the institutional framework for OGD, and the promotion of incentives and collective goals for OGD appropriateness.

8.4.1. Institutional policy and framework for OGD

Since this work clearly highlights the limited institutional framework for OGD in Chile, two policy recommendations are presented with the purpose of strengthening OGD initiatives. The first aspect relates to the clear definition of a strategy or policy for OGD to progress from simple publication portals to cross-sectoral public policies on data disclosure and reuse. Although there is the sense among some stakeholders that OGD initiatives are a magic tool, which can be used to solve public issues by solely focusing on data disclosure; practitioners and policy makers should understand that these are complex political interventions that require adequate policy making processes. OGD policies should clearly define full-time roles and responsibilities, as well as provide sufficient resources to fund data curation and publication, both at central and sectoral levels. Like any other policy making process, OGD initiatives should follow a strict development process including problem diagnosis and definition, analysis and selection of policy options, policy implementation and policy assessment. Furthermore, the constraints related to the politics of data observed in this research require that these policies are led by skilled public management experts, instead of allocating additional responsibilities to practitioners who already have a significant workload and thus cannot effectively deal with these constraints. A comprehensive policy approach for OGD would also require higher levels of coordination between MDGU and sectoral agencies. There is currently occasional coordination between MDGU, the Council for Transparency, and
the Public Sector Modernisation Programme at the Ministry of Treasury, among others; which have shown interest in OGD through different projects. A coordinated approach towards OGD would increase the awareness and political support at Central Government in order to foster capacity building and the availability of resources. Finally, it is vital to perform continuous assessments of OGD initiatives in two areas: performance of public agencies in data publication (number, quality and relevance), and the levels of reuse of public data both inside and outside the public sector. The correct assessment of demand for data from key stakeholders inside and outside the Government would facilitate the definition of tailored strategies that reflect local needs, as well as identify the key areas that require more efforts from the Central Government to enhance OGD initiatives.

The second aspect of policy recommendation relates to the broader institutional framework, and the empowerment of the leading OGD unit. As the case of Chile shows, in the absence of a strong institutional framework the Unit faces OGD disclosure from a limited position of power, from which it is not only difficult to make other agencies comply with OGD regulation, but more importantly to develop collective goals that provide sustainability to these initiatives in the long term. OGD initiatives need be hosted by empowered and legitimised agencies that can plan long-term policies, while remaining relatively independent from domestic politics and changes of administration. In the case of Chile, OGD implementation depends on MDGU, a project within a political ministry responsible for cross-sectoral digital government policies in the Central Government, and which does not have sufficient resources and political backing to implement projects such as OGD – as the evidence presented in this work suggests. MDGU needs to adopt a different institutional structure, such as a ministry or an independent agency, which would empower the Unit to define binding regulation and plan long-term digital government policies. This research outlines the lack of an institutional framework for digital government policies prior to the implementation of OGD, and the need for adequate institutions that ensure the long-term sustainability of digital government policies beyond individual administrations. In line with this argument, the OECD has recently proposed similar recommendations to the Chilean government, albeit lacking an academic analytical evidence base (OECD 2016).
8.4.2. Promotion of incentives and collective goals of OGD

Increasing the levels of adoption of OGD policies by sectoral agencies can be achieved through the fostering of correct incentives for all stakeholders involved in data disclosure processes. As OGD policies often collide with sectoral objectives and interests, governments should clearly define strategies that balance these concerns with the benefits of data disclosure regarding public sector efficiency and policy making, as well as equipping public servants with data skills and technical infrastructure. The big data and machine-learning era opens the door for introducing sophisticated data analysis techniques for prediction, business intelligence or other methods that facilitate the development of more accurate public policies. By stating the clear link between data availability and the introduction and training in advanced data analysis, public agencies may better anticipate benefits in public sector delivery. These strategies could help empower users and support platforms of exchange among businesses, civil society organisations and government agencies to promote greater reuse and impact of public data.

Another relevant aspect to increase alignment and reduce tensions between leading units and sectoral agencies, is that OGD policies could be developed following participatory approaches that reflect the views of key stakeholders. As OGD initiatives are often centrally managed and do not consider sectoral concerns about the process of data disclosure, policy makers should attempt to develop collective goals for OGD through a participatory policy-making process that increases the anticipation of benefits at sectoral agencies and hence their demand for OGD. Public agencies could develop sectoral OGD plans which both identify the purposes, needs and benefits that data disclosure may create for themselves and other interested stakeholders; but also carefully consider technical issues related to data governance practices. Following a participatory approach, sectoral agencies could develop tailored initiatives according to sectoral resources and capacities, while focusing on those areas that are of relevance for data users. Further collaboration strategies could be considered between local organisations and public agencies to co-create solutions for common issues in public service delivery using OGD.
8.5. **Limitations of the research**

Although this work has effectively answered the stated research questions, it naturally has limitations. This section reflects on some of these shortcomings, in particular with regard to two areas. Firstly, comments on the methodology are made – specifically about the lack of quantitative data to reinforce some of the findings. Secondly, conclusions are provided regarding the generalisability of this work based on the selected case study. While some limitations and critiques are highlighted in this section, they do not negate this work’s findings. Instead, they can be of help for future research which may expand and test this approach in different contexts and polities.

8.5.1. **Methodological approach**

The methodology adopted in this research, comprising qualitative methods and a single case study, has served to introduce new insights into the role of power and political institutions in OGD. This approach has been useful to collect in-depth data about the dynamics that determine how domestic institutions have influenced OGD in Chile. However, this approach also presents some limitations, e.g. quantitative data sources and expanded theoretical frameworks could have complemented the qualitative methods used in this research.

Firstly, this research relies on primary and secondary qualitative data to explain the levels of compliance of sectoral agencies with the OGD initiative. This data could have been complemented with detailed annual quantitative data on sectoral compliance or engagement, disaggregated by agencies, formats and other qualities, in order to compare how agencies performed in the long term, as well as to contrast how they engaged with OGD during the two Presidential terms studied in this work. Although Table 7.3 provides the agencies’ performance in 2015, more detailed data could have enriched the observations obtained through interviews. This qualitative data on agencies’ performance in OGD was personally requested from MDGU – informally during the interviews – and through passive transparency requests. However, no answer was provided at the time of submitting this work. Furthermore, no qualitative surveys

---

14 A FOI request was made using the Law 20.285 of transparency and access to information (CNC 2008b): the first one was presented to SEGPRES and MDGU, who answered that such detailed information would
or other instruments were used to obtain this data given the time constraints and the resistance of sectoral agencies to actively disclose their level of compliance. Hence, findings solely rely on in-depth qualitative data collected through interviews and relevant documents which provide high-quality answers but do not reach the level of granularity and complementary perspective to quantitatively analyse sectoral compliance of OGD.

Secondly, both HI and CP have proved to be suitable and relevant theoretical lenses to understand political dynamics in OGD. However, these theories have also presented some limitations related to their explanatory power to answer the research questions. Specifically, HI, being operationalised through PD, helps understand history through a linear sequence. By revising critical junctures, structural persistence and reactive sequences, current political events are explained as a linear occurrence. However, the linear interpretation of progression in history does not incorporate the iterative co-development of institutions and actions, hence constraining the analysis of gradual institutional change. Further insights into these complexities are addressed in a collection of HI related papers (Fioretos et al. 2016; Mahoney et al. 2016). These authors suggest nuanced approaches to understand how gradual change occurs in HI, which may be introduced in future research related to the historical understanding of OGD or other types of technological innovations.

All in all, both qualitative data and selected theoretical frameworks have proved to be a suitable methodological basis to effectively answer the research questions, providing detailed and in-depth insights into the politics of OGD. However, improved quantitative data and more flexible theoretical frameworks could still enhance these insights, while adding unambiguous support to the findings derived from the qualitative sources.

8.5.2. Generalisability of findings and conclusions

One of the common concerns arising from a single explanatory case study is how to interpret the research findings and conclusions in a broader context. In this section some
distract public servants from their regular work tasks, denying the information by using the clause c) of article 21.1. A complaint was made to the Council for Transparency, which has not been answered to date.
reflections on the generalisability of this research are stated in terms of both the country and the nature of OGD in different polities.

The focus of this work is to understand the influence of politics and power on OGD, a link that has been suggested by few OGD researchers and practitioners. Based on this argument, one of the purposes of this work has been to identify and test conceptual frameworks that can be used to research and analyse this influence. While the more general contributions of the methodological approach that has been adopted to test this hypothesis may be generalisable, the specifics of the Chilean case may not be applicable to other countries and polities.

By selecting a single case study, the specific findings and conclusions presented in this work cannot easily be extended to other countries, as they need to be contextualised in terms of local polities and institutional progression. Specifically, the Chilean government is characterised by strong presidentialism and a highly centralised executive government. Hence, the particular settings of the Chilean polity have a significant influence on the identified institutional trajectories and how they affect OGD. Under this particular polity, the identification and analysis of key institutional trajectories and structural conditions that determine how OGD has been developed, may only be explanatory with regard to the Chilean case and history. However, it can be used as a starting point for analysing OGD in other countries with similar or different characteristics. Other Latin American countries present comparable institutional settings, i.e. environments where these findings can serve as explanatory sources rather than simply as an analytical lens. The presence of other trajectories influencing the way OGD is implemented does not deny the relevance of the findings and insights presented in this work, but may condition its direct generalisability for other countries and polities.

Nonetheless, the theoretical approach used to conduct this research may be a suitable lens to understand the political dynamics that determine other countries’ OGD initiatives. The combination of micro-level analysis of power in OGD disclosure as well as macro-level analysis of political trajectories influencing OGD initiatives, materialised through the Circuits of Power and Historical Institutionalism respectively, is a replicable conceptual framework that can provide relevant insights for any polity. Hence, it can be of relevance to understand other countries’ political dynamics in their OGD initiatives.
However, as the findings of this work show, this analysis is context-dependent and highly influenced by the local political environment and stakeholders. This requires that researchers, who are interested in understanding these dynamics through the institutional framework developed for this research, take into account the idiosyncratic nature and political dynamics of these countries.

8.6. Future research

This research presents an argument explaining how power and political institutions have determined the development of OGD in Chile. As OGD initiatives continue to expand and represent a relevant policy on countries’ political agendas, new research could address other perspectives from which to understand the influence of political institutions on OGD.

Firstly, the theoretical framework adopted in this research could be tested in other political contexts and polities in order to confirm or question its validity and appropriateness. By adding more cases, new insights may emerge from comparing different historical political trajectories related to digital government, transparency and access to information, and data governance institutions. For example, comparative case studies may shed light on the likely role of different institutional arrangements in failing or succeeding OGD initiatives across the world. They may also serve to elucidate the conditions required to deliver social impact from public data disclosure. Comparing the Chilean case with other polities and institutional arrangements would allow the insights from this research to be seen from a relative viewpoint, as other countries likely experience similar institutional challenges and constraints.

Secondly, further research could be conducted to understand the role of OGD as democratic innovation. One possible route to understand the political implications of OGD is studying how democratic OGD initiatives are – an approach that was initially part of this research, but which had to be set aside given time and other constraints. Being often declared a transformative tool for democracy, future research could analyse how democratic OGD is, which may elucidate the extent of its use and relevance for local democracies in redistributing power through access to public information. One suitable theoretical lens to conduct this study is provided by Graham Smith and his “Democratic
Innovations” framework (2009). In his work, Smith suggests that democratic initiatives should incorporate democratic goods, i.e. a set of desirable characteristics that make these innovations a real tool to change established power relationships. The framework’s focus on institutionalisation and democratic goods may be helpful in understanding how OGD has shaped democratic arenas, and its degree of openness to broader social groups compared to a mere focus on already empowered elites.

A third aspect that warrants further investigation is the analysis of the type of dominant logics that govern OGD development, and the way they interact, in order to determine the meanings driving OGD. Evidence presented in this research suggests that agency plays a relevant role in defining different worldviews and meanings attributed to OGD, which is reflected in the diverse levels of political understanding, political support and resources to implement OGD and engage with the initiative. In particular, this work highlights the role of Presidents in providing political support and resources according to their dominant incentives, the leading role of MDGU in shaping a strategy for OGD implementation, as well as the resistance exerted by sectoral agents towards adopting OGD. Whilst this research acknowledges the role of agency and how different meanings collided in OGD implementation, further research could look at specific logics on OGD disclosure, as well as the conflicts that determine which logic governs the initiative. These rationales may be explored by using Institutional Logics as a theoretical lens. The adoption of institutional logics would provide a clearer picture of the role of agency in OGD initiatives. Likely, several logics may compete to dominate the OGD arena, and hence hybrid logics may be in place to determine different levels of collaboration and contestation in OGD policies. As the majority of institutional theories are based on stability and gradual change (i.e. path dependency studies), Institutional Logics is used with the purpose of drawing out conflict in institutional progression, concentrating attention on the role of agency in institutional studies; i.e. Institutional Logics assumes that institutions are highly heterogeneous, and that multiple and contradictory logics can co-exist (Thornton and Ocasio 2008; Ismail et al. 2017).

Fourthly, further insights at agency level may be obtained from studying the role of entrepreneurs in promoting and progressing the OGD agenda both inside the Government and in civil society. The case of Chile shows the relevant role of OGD
Conclusions

*champions* in leveraging resources, creating awareness and gathering political support to progress the OGD agenda. In particular, champions at MDGU were able to obtain political support by highlighting the bureaucratic and political benefits of OGD, having a seminal role in the way OGD was developed in the country. One suitable approach is studying OGD agents as Institutional Entrepreneurs, e.g. actors that “have an interest in a particular institutional arrangement and who leverage resources to create new institutions or to transform existing ones” (Maguire et al. 2004, p.657). Identifying and characterising institutional entrepreneurs is of relevance to understand who champions OGD are and how these entrepreneurs gather political and economic resources for OGD’s implementation. Arguably, OGD initiatives are embedded in complex institutional arrangements which likely constrain rather than favour their development. Hence, institutional entrepreneurs are key to overcoming institutional barriers. Whilst this research does not attempt to conduct a detailed analysis of institutional entrepreneurs, empirical evidence suggests that they were present in MDGU as well as in sectoral agencies, and that they played a vital role in introducing change and facilitating the implementation of OGD.

Finally, further insights may be derived by addressing the limitations of this work presented in the preceding section. For instance, an institutional analysis, similar to the one presented in this work, may be conducted with regard to OGD implementation in different countries and polities. Against the background of a context-dependent impact of political institutions and power on OGD, a comparative analysis of how different countries politically implement OGD would be beneficial to test the applicability of the findings and conclusions obtained in this work. It would also serve to expand the political understanding of OGD to countries with different polities and political institutions. Furthermore, future research may revisit Chile as a single explanatory case study and look at a longer timeframe of study to observe how each institutional trajectory has progressed, and to what extent they continue to influence the development of OGD in the country. Further research may consider detailed quantitative data to assess sectoral performance and commitment to OGD, and analyse how each agency has engaged or resisted the initiative based on the level of compliance related to the quantity and quality of the datasets comprised in the national OGD platform.
References


References


CIDHH. (2006). *Sentencia caso Claude vs Chile* [Sentence case Claude vs Chile]. San Jose, Costa Rica: Corte Inter-American de DDHH.


CNC. (2006). *Decreto 100 - Norma técnica para el desarrollo de sitios web de los órganos de la administración del estado* [Decree 100 - Technical guideline for the development of public agencies’ websites]. Santiago: Congreso Nacional de Chile.


CNC. (2008a). *Decreto 271 sobre reglamento para inscripción de esquemas documentales en el repositorio de esquemas y metadatos* [Decree 271 for regulations to register metadata repositories]. Santiago: Congreso Nacional de Chile.

CNC. (2000). *Decreto 779 - Reglamento del registro de bancos de datos personales*
References

[Decree 779 - Regulations for the personal data register]. Santiago: Congreso Nacional de Chile.


Future research


References


References


Janssen, K. (2012). Open government data and the right to information: Opportunities
Future research


References

**Directive 05 for e-Government.** Santiago: Gobierno de Chile.


References


Olavarría, M. (2013). La institucionalización y gestión estratégica del acceso a la información y transparencia activa en Chile [The institutionalisation and strategic management of active transparency and access to information in Chile]. Santiago: Consejo para la Transparencia.


References


UMGD. (2012b). *Propuesta de norma técnica para publicación de datos en Chile [Proposal of technical guidelines for publication of public data in Chile]*. Santiago de Chile: SEGPRES.


References


Appendix 1: Systematic literature review methodology

This appendix describes the methodological process conducted to develop a systematic literature review and, consequently, the identification of relevant research gaps in academic literature related to the intersection of OGD and politics. The methodological aspects described in this work led to the identification of the research gaps presented in section 2.4.

Developing a literature overview of political aspects of OGD implies conducting a systematic literature review (SLR). In the information systems discipline, different authors have suggested systematic procedures to conduct a literature review based on the generally large amount of journal articles, books, conference proceedings and reports which provide the basis for any theoretical understanding of the topic of study. For instance, Webster and Watson (2002), Levy and Ellis (2006), and Okoli and Schabram (2010) developed specific systematic literature reviews for information systems scholars, providing a methodology which comprises both literature sources and specific practices in order to achieve a high-quality literature analysis. To a higher or lower extent, these three literature review approaches consider a rigorous search methodology based on the definition of keywords and a set of relevant databases, as well as a classification of these sources in terms of relevant constructs for the researcher.

This work adopts the methodology suggested by Webster and Watson (2002). The SLR of OGD from a political perspective includes: a) identification of relevant academic literature, b) structure and classification of the literature, and c) theoretical development of the review. This review has been developed considering publications between January 2008 and June 2014 based on a list of keywords and from a list journal articles, conference proceedings and electronic databases, all of which are summarised in Table A.1. The purpose of this SLR is to investigate the notion that there is a lack of empirical research with a political focus in the OGD arena.

The first step was to define a set of keywords relevant to the research context according to an inductive analysis of OGD literature. Two groups were identified through this
Future research process: the first group contains basic keywords that relate OGD to its three convergent streams (OD, OG and GD), and the second group contains keywords based on political aspects associated with OGD. Afterwards, these keywords have been combined through logical (AND) and search (+,””) operators, which were then used to retrieve academic literature from a list of selected academic databases, starting with Google Scholar and the University of Manchester Library search engines. Based on a set of initial findings, a list of specific journal articles and conference proceedings was identified. Once a consistent list of articles was selected, backward (papers cited within the text) and forward (references to the paper in newer academic articles) searching techniques were applied, producing a list of relevant literature that formed the basis of this theoretical analysis. Furthermore, automatic search notifications on Google Scholar were scheduled according to the keywords in Table A.1 at the time this SLR was conducted, with the purpose of including other literature that had not been covered in this process.

Table A.1: Research Methodology

<table>
<thead>
<tr>
<th>Keywords1</th>
<th>Journals2</th>
<th>Conference Proceedings2</th>
<th>Databases2</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Open Data*</td>
<td>- Communications of the ACM</td>
<td>- Conference for E-Democracy and Open Government (CeDEM)</td>
<td>- Elsevier (ScienceDirect, Scopus)</td>
</tr>
<tr>
<td>- Open Government Data*</td>
<td>- Electronic Government</td>
<td>- International Conference on Electronic Government (EGOV)</td>
<td>- Pro-EBSCO</td>
</tr>
<tr>
<td>- Politics</td>
<td>- European Journal of ePractice</td>
<td>- Thomson Reuters (Social Science Citation index)</td>
<td>- Springer Link</td>
</tr>
<tr>
<td>- Political Institutions</td>
<td>- European Journal of Information Systems</td>
<td>- University of Manchester Library Database</td>
<td>- SSRN: Social Science Research Network</td>
</tr>
</tbody>
</table>
### Appendix 1: Systematic literature review methodology

#### Public Data
- Empowerment
- Government Information Quarterly
- Information Polity
- Information Systems Management
- International Review of Administrative Sciences
- Journal of E-Government
- Journal of the American Society for Information Science
- Policy and Internet
- Public Policy and Governance Review
- The Journal of Community Informatics
- The Political Quarterly
- UCLA Law Review Discourse

#### International Conference on System Sciences (HICSS)
- International Conference on Theory and Practice of Electronic Governance (ICEGOV)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>sorted by relevance</td>
<td>sorted by alphabetical order</td>
<td>most relevant keywords</td>
</tr>
</tbody>
</table>

The list of literature with reference to the “political” aspects of OGD is presented in Table A.2. In order to classify these documents, specific concepts of the topic or the research approach were identified, such as the streams of OGD covered, the type of research and the type of evidence. Additionally, some of the findings and reflections presented in the sections 2.3 and 2.4 are based on the researcher’s interpretation of the politics of OGD, which are reinforced with existing literature from other related areas given the absence of empirical work on the politicalness of OGD. These other areas include digital government and e-government, public data governance, ICT-driven transparency and
accountability, and ICT4D. Innovations from these areas have faced similar political issues and political trajectories to OGD, and are hence being added to strengthen some of these reflections.

Table A.2.1: Systematic Literature review of OGD from a political perspective

<table>
<thead>
<tr>
<th>Literature</th>
<th>Coverage of OGD streams</th>
<th>Type of research</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Data (technological)</td>
<td>Open Government political</td>
<td>Government Data (bureaucratic)</td>
<td>Empirical</td>
</tr>
<tr>
<td>Bates (2013b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Boyera &amp; Iglesias (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Caidi, Stevenson &amp; Richmond (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cole (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Davies &amp; Bawa (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Davies (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Denis and Goeta (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fioretti (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fumega &amp; Scrollini (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gurstein (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hansen et al. (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Harrison et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Helbig (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Heusser (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hogge (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Janssen (2011a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Janssen et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Johnson (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lathrop &amp; Ruma (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Longo (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maguire (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maier-Rabler and Huber (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meijer et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Peikoto (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Peled (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Peled (2014a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ramirez-Alujas &amp; Dasser (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The World Bank (2012a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Tkacz (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ubaldi (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>United Nations (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Van Veenstra and van den Broek (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Yu and Robinson (2009)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Appendix 1: Systematic literature review methodology

<table>
<thead>
<tr>
<th></th>
<th>Literature</th>
<th>Openness</th>
<th>Transparency &amp; Accountability</th>
<th>Empowerment</th>
<th>Value of PSI</th>
<th>Exertion of Power</th>
<th>Political Institutionalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Yu and Robinson (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>35</td>
<td>Zuiderwijk et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>36</td>
<td>Zuiderwijk and Janssen (2012a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>37</td>
<td>Zuiderwijk and Janssen (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: Own elaboration

The result of the SLR is an analysis of the key political aspects related to OGD, and which help construct the politicalness of OGD. As can be seen in Table A.2.2, the literature can be classified into six categories: openness, transparency and accountability, empowerment, the value of public sector information (PSI), exertion of power, and political institutionalisation. The development of this analysis as well as further reflections from this academic literature is outlined in sections 2.3 and 2.4, which present key insights regarding the politicalness of OGD initiatives.

Table A.2.2: Systematic Literature review of OGD from a political perspective

<table>
<thead>
<tr>
<th>Literature</th>
<th>Openness</th>
<th>Transparency &amp; Accountability</th>
<th>Empowerment</th>
<th>Value of PSI</th>
<th>Exertion of Power</th>
<th>Political Institutionalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bates (2013b)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2 Boyera &amp; Iglesias (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3 Caidi, Stevenson &amp; Richmond (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4 Cole (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5 Davies &amp; Bawa (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6 Davies (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7 Denis and Goeta (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8 Fioretti (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9 Fumega &amp; Scrollini (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10 Gurstein (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11 Hansen et al. (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12 Harrison et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13 Helbig (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>14 Heusser (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>15 Hogge (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>16 Janssen (2011a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>17 Janssen et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>18 Johnson (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>19 Lathrop &amp; Ruma (2010)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>20 Longo (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Author(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Maguire (2011)</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Maier-Rabler and Huber (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Meijer et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Peikoto (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Peled (2011)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Peled (2014a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Ramírez-Alujas &amp; Dasser (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>The World Bank (2012a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Tkacz (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Ubaldi (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>United Nations (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Van Veenstra and van den Broek (2013)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Yu and Robinson (2009)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Yu and Robinson (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Zuiderwijk et al. (2012)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Zuiderwijk and Janssen (2012a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Zuiderwijk and Janssen (2014)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: List of relevant documents

This work incorporates relevant documents that frame OGD development, or its foundational trajectories in Chile. The list presented in Table A.3 comprises different regulations, reports, presidential directives and other documents that have a relevant role in shaping OGD or its historical trajectory.

Table A.3: Research Methodology

<table>
<thead>
<tr>
<th>No</th>
<th>Type</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“Chile Towards a Knowledge Society” – report from the e-Government committee</td>
<td>Comisión Presidencial TIC (1999)</td>
</tr>
<tr>
<td>2</td>
<td>Law 19.628 for personal data protection</td>
<td>Congreso Nacional de Chile (1999a)</td>
</tr>
<tr>
<td>3</td>
<td>Decree 779-2000 for registration of personal data databases held by public agencies</td>
<td>Congreso Nacional de Chile (2000)</td>
</tr>
<tr>
<td>8</td>
<td>Decree 077-2004 for technical guidance for electronic communication</td>
<td>Congreso Nacional de Chile (2004a)</td>
</tr>
<tr>
<td>9</td>
<td>Decree 081-2004 for interoperability among public agencies</td>
<td>Congreso Nacional de Chile (2004b)</td>
</tr>
<tr>
<td>12</td>
<td>Decree 100-2006 for technical guidance for public sector web pages</td>
<td>Congreso Nacional de Chile (2006)</td>
</tr>
<tr>
<td>15</td>
<td>Final Assessment - PRYME programme</td>
<td>SEGPRES (2007)</td>
</tr>
<tr>
<td>16</td>
<td>FOIA – Law 20.285 on transparency and access to information</td>
<td>Congreso Nacional de Chile (2008b)</td>
</tr>
<tr>
<td>20</td>
<td>Law 20.500 for citizen participation</td>
<td>Congreso Nacional de Chile (2011)</td>
</tr>
</tbody>
</table>
Future research

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Technical Guide for OGD publishing – MDGU (Draft)</td>
<td>Unidad de Modernización y Gob Digital (2012b)</td>
</tr>
<tr>
<td>23</td>
<td>Chile’s 1st Action Plan for OGP 2012-2013</td>
<td>Gobierno de Chile (2012)</td>
</tr>
<tr>
<td>26</td>
<td>Decree 014-2014 to repeal Decree 181-2002</td>
<td>Congreso Nacional de Chile (2014a)</td>
</tr>
<tr>
<td>27</td>
<td>Decree 071-2014 to implement the lobby law 20.730</td>
<td>Congreso Nacional de Chile (2014b)</td>
</tr>
<tr>
<td>28</td>
<td>Law 20.730 for lobbying</td>
<td>Congreso Nacional de Chile (2014c)</td>
</tr>
</tbody>
</table>

Source: Own elaboration
Appendix 3: Interview structure

Below is the semi-structured questionnaire conducted with key interviewees involved in the development of OGD in Chile or other related areas. These questions only represent the basic set of areas to be discussed during interviews, as each answer led to new questions to deepen the information provided by the interviewee.

General Questions

1. What is your background?
2. How have you been involved with OGD and for how long?

Historical Institutionalism

3. In your experience, what are the key political historical events that provide the foundations for OGD in Chile?
4. How have these political events been institutionalised in Chile?
5. Do you observe any cultural, organisational or political change caused by these political events?
6. What are the dominant rationales driving the progression of these historical events?
7. How are these historical events connected to the development of OGD?
8. For what purposes did the government implement OGD in Chile?
9. What are the dominant rationales driving the progression of OGD?
10. What is the institutional framework in place for OGD?

Circuits of Power

11. Who are the main agents involved in the disclosure process?
12. Could you describe the process of data disclosure and the relationship between MDGU and sectoral agencies?
13. How is the relationship between publishers and MDGU?
14. How do sectoral agencies embed this and other data disclosure initiatives?
15. What are the key issues observed between MDGU and publishers?
   a) Is OGD embedded in daily routines and working practices at sectoral agencies?
   b) Do public agencies resist or engage with OGD? How?
16. What are the formal/informal rules that govern the implementation of OGD?
17. How does MDGU ensure that public agencies effectively publish and commit to OGD duties?
Appendix 4: Summary of fieldwork

As section 4.4 explains, Chile was selected as a case study for this work. Given the qualitative focus of this research, two fieldwork periods were conducted in Chile in order to interview key stakeholders involved in the development of OGD in the country, as well as to obtain any relevant document source to support this process. Firstly, pilot fieldwork was conducted in Santiago, Chile, between the 4th December and 20th December 2014, a period in which five interviews with two government officials, two academics and one journalist were conducted. These interviewees were selected given their direct involvement in OGD, as well as their participation in OGD-related events and activities in the country prior to this pilot fieldwork. Interviews were arranged from Manchester via email and using official information sheets approved according to the policies and regulations of the School of Environment, Education and Development (SEED), University of Manchester, as can be seen in Appendix 6.

Once the pilot fieldwork was conducted, interviews were transcribed according to the procedure explained in section 4.6. These sources were analysed to capture key insights that served as feedback to refine both the interview structure and the selection of future interviewees. During this period of analysis, further interviewees were identified and contacted from Manchester using the aforementioned official information sheets.

After the pilot fieldwork, a main fieldwork period was conducted between the 1st March and 10th May 2015 in Santiago, Chile. Similar to the approach used for the pilot fieldwork, interviewees were contacted and interviews were arranged using the official information sheets sent via email. For the official fieldwork period, the pool of interviewees was expanded in order to obtain insights from different groups involved in OGD in the country, or with a critical view on relevant areas for OGD policies, such as digital government, transparency implementation in the public sector and civic technologies, among others. Hence, different groups of interviewees were incorporated in this research: civil society organisations, ICT individuals, data journalists, technology-related entrepreneurs, public sector officials and practitioners, and researchers and academics.
Appendix 5: List of interviews

Below the list of interviews conducted for this thesis is outlined for reference.

Table A.5: List of interviews

<table>
<thead>
<tr>
<th>No.</th>
<th>Code</th>
<th>Stakeholder</th>
<th>Area of Incidence</th>
<th>Date of Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CS-01</td>
<td>CSOs</td>
<td>Transparency</td>
<td>09/03/2015</td>
</tr>
<tr>
<td>2</td>
<td>CS-02</td>
<td>CSOs</td>
<td>ICTs and Transparency</td>
<td>19/03/2015</td>
</tr>
<tr>
<td>3</td>
<td>CS-03</td>
<td>CSOs</td>
<td>ICTs</td>
<td>16/03/2015</td>
</tr>
<tr>
<td>4</td>
<td>CS-04</td>
<td>CSOs</td>
<td>ICTs and Transparency</td>
<td>24/03/2015</td>
</tr>
<tr>
<td>5</td>
<td>CS-05</td>
<td>CSOs</td>
<td>ICTs in Public Sector</td>
<td>14/04/2015</td>
</tr>
<tr>
<td>6</td>
<td>CS-06</td>
<td>CSOs</td>
<td>Transparency</td>
<td>13/04/2015</td>
</tr>
<tr>
<td>7</td>
<td>CS-07</td>
<td>CSOs</td>
<td>Transparency and Open Government</td>
<td>11/03/2016</td>
</tr>
<tr>
<td>8</td>
<td>CS-08</td>
<td>CSOs</td>
<td>ICTs and Transparency</td>
<td>10/03/2016</td>
</tr>
<tr>
<td>9</td>
<td>IN-01</td>
<td>Individual</td>
<td>ICTs</td>
<td>24/03/2015</td>
</tr>
<tr>
<td>10</td>
<td>IN-02</td>
<td>Individual</td>
<td>ICTs in Public Sector</td>
<td>17/01/2015</td>
</tr>
<tr>
<td>11</td>
<td>IN-03</td>
<td>Individual</td>
<td>ICTs and Transparency</td>
<td>10/03/2015</td>
</tr>
<tr>
<td>12</td>
<td>IN-04</td>
<td>Individual</td>
<td>ICTs</td>
<td>31/03/2015</td>
</tr>
<tr>
<td>13</td>
<td>IN-05</td>
<td>Individual</td>
<td>ICTs</td>
<td>12/03/2015</td>
</tr>
<tr>
<td>14</td>
<td>JT-01</td>
<td>Journalist</td>
<td>Data Journalism</td>
<td>27/03/2015</td>
</tr>
<tr>
<td>15</td>
<td>JT-02</td>
<td>Journalist</td>
<td>Data Journalism</td>
<td>13/03/2015</td>
</tr>
<tr>
<td>16</td>
<td>JT-03</td>
<td>Journalist</td>
<td>Data Journalism</td>
<td>04/12/2014</td>
</tr>
<tr>
<td>17</td>
<td>PSE-01</td>
<td>Private Sector</td>
<td>ICTs</td>
<td>04/03/2015</td>
</tr>
<tr>
<td>18</td>
<td>PSE-02</td>
<td>Private Sector</td>
<td>ICTs</td>
<td>08/04/2015</td>
</tr>
<tr>
<td>19</td>
<td>PSE-03</td>
<td>Private Sector</td>
<td>ICTs in Public Sector</td>
<td>12/03/2015</td>
</tr>
<tr>
<td>20</td>
<td>PSO-01</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>26/03/2015</td>
</tr>
<tr>
<td>21</td>
<td>PSO-02</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>25/03/2015</td>
</tr>
<tr>
<td>22</td>
<td>PSO-03</td>
<td>Public Sector Official</td>
<td>Transparency</td>
<td>24/03/2015</td>
</tr>
<tr>
<td>23</td>
<td>PSO-04</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>23/03/2015</td>
</tr>
<tr>
<td>24</td>
<td>PSO-05</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>03/03/2015</td>
</tr>
<tr>
<td>25</td>
<td>PSO-06</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>16/03/2015</td>
</tr>
<tr>
<td>26</td>
<td>PSO-07</td>
<td>Public Sector Official</td>
<td>ICTs in Public Sector</td>
<td>20/03/2015</td>
</tr>
<tr>
<td>27</td>
<td>PSO-08</td>
<td>Public Sector Official</td>
<td>Transparency</td>
<td>14/04/2015</td>
</tr>
<tr>
<td>28</td>
<td>PSO-09</td>
<td>Public Sector Official</td>
<td>Transparency</td>
<td>05/12/2014</td>
</tr>
<tr>
<td>29</td>
<td>PSO-10</td>
<td>Public Sector Official</td>
<td>Transparency</td>
<td>20/04/2015</td>
</tr>
<tr>
<td>30</td>
<td>PSO-11</td>
<td>Public Sector Official</td>
<td>Transparency</td>
<td>13/04/2015</td>
</tr>
<tr>
<td>31</td>
<td>PSO-12</td>
<td>Public Sector Official</td>
<td>ICTs and Modernisation</td>
<td>15/04/2015</td>
</tr>
<tr>
<td>32</td>
<td>PSP-01</td>
<td>Public Sector Practitioner</td>
<td>ICTs in Public Sector</td>
<td>05/03/2015</td>
</tr>
<tr>
<td>33</td>
<td>PSP-02</td>
<td>Public Sector Practitioner</td>
<td>Transparency</td>
<td>07/04/2015</td>
</tr>
<tr>
<td>34</td>
<td>PSP-03</td>
<td>Public Sector Practitioner</td>
<td>ICTs in Public Sector</td>
<td>26/03/2015</td>
</tr>
<tr>
<td>35</td>
<td>PSP-04</td>
<td>Public Sector Practitioner</td>
<td>ICTs and Transparency</td>
<td>09/04/2015</td>
</tr>
<tr>
<td>36</td>
<td>PSP-05</td>
<td>Public Sector Practitioner</td>
<td>ICTs and Transparency</td>
<td>07/04/2015</td>
</tr>
<tr>
<td>37</td>
<td>PSP-06</td>
<td>Public Sector Practitioner</td>
<td>Transparency</td>
<td>10/03/2015</td>
</tr>
</tbody>
</table>
### Future research

<table>
<thead>
<tr>
<th></th>
<th>Code</th>
<th>Title</th>
<th>Type</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>PSP-07</td>
<td>Public Sector Practitioner</td>
<td>Data Management</td>
<td>19/03/2015</td>
</tr>
<tr>
<td>39</td>
<td>PSP-08</td>
<td>Public Sector Practitioner</td>
<td>Data Management</td>
<td>07/04/2015</td>
</tr>
<tr>
<td>40</td>
<td>PSP-09</td>
<td>Public Sector Practitioner</td>
<td>ICTs in Public Sector</td>
<td>03/12/2014</td>
</tr>
<tr>
<td>41</td>
<td>PSP-10</td>
<td>Public Sector Practitioner</td>
<td>ICTs in Public Sector</td>
<td>06/03/2016</td>
</tr>
<tr>
<td>42</td>
<td>PSP-11</td>
<td>Public Sector Practitioner</td>
<td>ICTs in Public Sector</td>
<td>13/03/2015</td>
</tr>
<tr>
<td>43</td>
<td>PSP-12</td>
<td>Public Sector Practitioner</td>
<td>Data Management</td>
<td>20/03/2015</td>
</tr>
<tr>
<td>44</td>
<td>RA-01</td>
<td>Researcher/Academic</td>
<td>ICTs and Transparency</td>
<td>31/03/2015</td>
</tr>
<tr>
<td>45</td>
<td>RA-02</td>
<td>Researcher/Academic</td>
<td>ICTs</td>
<td>25/03/2015</td>
</tr>
<tr>
<td>46</td>
<td>RA-03</td>
<td>Researcher/Academic</td>
<td>ICTs in Public Sector</td>
<td>17/12/2014</td>
</tr>
<tr>
<td>47</td>
<td>RA-04</td>
<td>Researcher/Academic</td>
<td>ICTs</td>
<td>26/11/2014</td>
</tr>
<tr>
<td>48</td>
<td>RA-05</td>
<td>Researcher/Academic</td>
<td>ICTs</td>
<td>11/03/2015</td>
</tr>
<tr>
<td>49</td>
<td>RA-06</td>
<td>Researcher/Academic</td>
<td>ICTs and Transparency</td>
<td>01/04/2015</td>
</tr>
<tr>
<td>50</td>
<td>RA-07</td>
<td>Researcher/Academic</td>
<td>Design</td>
<td>23/03/2015</td>
</tr>
<tr>
<td>51</td>
<td>RA-08</td>
<td>Researcher/Academic</td>
<td>ICTs in Public Sector</td>
<td>20/03/2015</td>
</tr>
<tr>
<td>52</td>
<td>RA-09</td>
<td>Researcher/Academic</td>
<td>Transparency</td>
<td>06/03/2015</td>
</tr>
<tr>
<td>53</td>
<td>RA-10</td>
<td>Researcher/Academic</td>
<td>ICTs in Public Sector</td>
<td>09/12/2015</td>
</tr>
<tr>
<td>54</td>
<td>RA-11</td>
<td>Researcher/Academic</td>
<td>Data Management</td>
<td>13/04/2015</td>
</tr>
<tr>
<td>55</td>
<td>RA-12</td>
<td>Researcher/Academic</td>
<td>Open Government</td>
<td>27/04/2015</td>
</tr>
</tbody>
</table>
PARTICIPANT INFORMATION SHEET

The Development of Open Government Data (OGD): an institutional analysis in the context of the Chilean OGD programme

Through this information sheet we would like to request your participation as interviewee in the research project *The Development of Open Government Data (OGD): an institutional analysis in the context of the Chilean OGD programme*, and inform you about the details of this investigation. This research is conducted by Felipe González-Zapata, Chilean researcher of the Institute for Development Policy and Management, as part of his doctoral studies.

The development of Open Government Data (OGD), as any ICT innovation within the public sector, is immersed in a set of contextual processes that shape its planning, implementation and operation stages, and also how different stakeholders perceive and use OGD. Thus, historical trajectories and organisational factors have a highly-relevant impact on the way OGD is established, and therefore also affect its institutionalisation inside and outside the public sector. Thus, the main objective of this project is to analyse how historical and organisational processes have affected the development of OGD in Chile, and how, in return, this programme has also shaped Chilean political institutions.

Based upon this, you have been selected either due to your relevant role inside the public sector or as stakeholder from civil society, academia, NGOs or the private sector (involved with planning, implementation, use and/or dissemination of OGD). If you decide to participate, you will be interviewed for around 30 minutes by the researcher in a place and date previously agreed with you. Ideally this interview can be audio-recorded, but if you do not feel comfortable with this option notes about the conversation could also be written down instead. All the data (recorded-written) will be kept and managed only by the researcher until the end of the project (2016), when it will be completely deleted in all available sources. Moreover, your participation is totally
Future research

confidential and anonymous, and your name and/or personal details will not be mentioned in any outcome of this research (final thesis or future publications based on it). Your participation is completely voluntarily and you can suspend it with no further explanations whenever you want by sending an email to the researcher. Additionally, this research does not contemplate any payment in relation to your participation.

The initial interview period of this research will be carried out during 1st March and 10th May 2015 in Santiago or Valparaíso (depending on your location). However, when the fieldwork period is over, further research will be developed at the University’s facilities in Manchester, UK. Once the research is concluded, journal articles are expected to be published based on the final findings and conclusions, but once again, personal details will not be mentioned in the final thesis or in any publication to maintain confidentiality. Copies of the journal articles will be sent to you once they are officially published.

In case of any further question or clarification please do not hesitate to contact:

Felipe González-Zapata

PhD researcher
Centre for Development Informatics
The University of Manchester

E-mail: felipe.gonzalez@postgrad.manchester.ac.uk
Mobile: +447761786495 (UK) - +56995020166 (Chile) available between 12/2014 and 05/2015
PARTICIPANT CONSENT FORM

If you are happy to participate in this study, please complete and sign the consent form below.

I confirm that I have read the attached participant information sheet and have had the opportunity to consider the information and ask questions, and had these answered satisfactorily.

I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to any treatment/service.

I agree to take part in the above research project.

Name of participant  Signature  Date

_________________________  _____________________  _____________

Name of person taking consent  Signature  Date

_________________________  _____________________  _____________