Encouraging Enterprise: Rationalising Self-Exploitation in the Digital Games Sector

A Thesis submitted to The University of Manchester for the degree of Doctor of Philosophy in the Faculty of Humanities

2015

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ABSTRACT
The University of Manchester
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Encouraging Enterprise: Rationalising Self-Exploitation in the Digital Games Sector
2015

The creative industries have recently been identified as an exemplar of enterprising activity with workers in the sector being described as a ‘creative class of entrepreneurs’. The digital sector is seen at the heart of these debates as political and media rhetoric has illustrated the wealth of opportunity, flexibility, freedom and control available to digital workers willing to take up entrepreneurial activity. However, contrasting accounts of enterprise are apparent in the creative industries that highlight unstable and insecure labour market conditions for all but ‘star’ performers. High levels of job insecurity prevalent in the creative industries are also visible in the digital games sector as project work, flexible employment models, and changes in the structure of the sector leave employment in the sector, at best, fragile and unstable for many workers.

In the context of contrasting accounts of the impact of precarious labour market conditions on creative workers, the aim of this thesis is to examine the experiences of a cohort of digital game developers in the North West of England, in a sector that is, by contemporary prescription, both creatively empowered and entrepreneurial. Using in-depth interviews and an ethnography of networking events it will consider the consequences for work and employment in the local sectoral labour market. Empirical research reveals the exploitative and precarious nature of work in the experiences of self-employed digital game developers and charts the responses of developers to unstable and insecure working conditions. It is clear that the typical response to increasing instability in the labour market is to adopt more enterprising and entrepreneurial behaviour in order to find work. Using the Pongratz and Voß (2003) framework of the ‘entreployee’ this work illustrates the consequences for developers by highlighting examples of self-exploitation which has been fuelled by a passion and a dedication to the work but at the same time has led to long working hours, unpaid work, and a blurring of work–life boundaries. Faced with accounts which explain individuals’ acceptance of self-exploitation through self-actualisation, a love of their craft, or a gift of autonomy, this thesis offers an additional understanding of self-exploitation by examining how individualistic values of passion, self-discipline, enterprise, and a strong sense of belonging have acted as a control structure and have given a convincing rationale for individuals to engage in these self-exploitative practices. Furthermore, this thesis demonstrates how the occupational community socialises developers’ motivations towards sociality, altruism and enterprise. It is argued that the unintended consequences of these motivations have led to the normalisation and acceptance of self-exploitative practices.
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1.0 Introduction

1.1 Introduction and Background

In 1998 the inclusion of the software and computer services sector in the new collection of ‘creative industries’ enabled the UK’s New Labour government to point to the creation of an enterprising and economically powerful sector (Garnham, 2005). Following the financial crisis of 2007-8, the Conservative led coalition government’s re-energisation of Thatcher’s enterprise policies reinforced the focus on enterprise. The government continued to portray enterprise in an optimistic vein by using software and digital games as an exemplar of how success can be gained by undertaking entrepreneurial activity. Thus the creative industries have become characterised as combining notions of freedom, autonomy and choice (Reeves, 2001) with a drive for entrepreneurial skills (Hesmondhalgh and Banks, 2009) which has resulted in the conceptualisation of a ‘creative class’ of model entrepreneurs (Coulsen, 2012).

Following calls for more critical approaches to enterprise, an emerging body of literature has revealed a darker side to enterprise. This has highlighted that fragmented work has brought increased anxiety (Sennett, 1998; Marchington et al, 2005) and involuntary or ‘forced’ self-employment has developed from the erosion of conventional structures (Kautonen et al, 2010). Furthermore, as a response to changing market structures, Pongratz and Voß (2003) and Pongratz (2008) have argued that individuals need to redefine their role in workplace, by taking on more individual responsibility and by acting in a more entrepreneurial manner. As a result, some have argued that there has been a redefinition of work roles to maintain economic existence.

Changing market structures have influenced entrepreneurial activity in the digital games sector, which is by contemporary prescription, creatively empowered, entrepreneurial and one with economic significance. Faced with contrasting accounts of the impact of precarious labour market conditions on creative workers this study intends to examine a cohort of developers’ experiences of enterprise and contributes towards the literature on the digital gaming sector with a specific focus on entrepreneurialism, which hitherto has been largely absent.

1.2 Towards an entrepreneurial workforce – The statistics

To be employed, according to the Office of National Statistics (ONS) is to be an employee, self-employed, an unpaid family worker or someone on government supported training and employment
programmes (ONS, 2014). This definition illustrates the varying forms of employment relationships that classify one as being employed in the UK.

The self-employed are seen as an important sector of the labour force in the United Kingdom. In 2015 the UK government was celebrating an employment rate of 73.4% with a total of 30.03 million people ‘employed’ as of June 2015, an increase of 354,000 from a year earlier (ONS, 2015). While these statistics suggest an active labour market they tell us little about where the growth of employment is and the changing nature of employment relationships.

Self-employment represents a significant segment of employed workers. Recent statistics show that 14.5% (4.51 million) of the total workforce are self-employed. This reflects a fall of 2.1% from the previous year (ONS, 2015). However, these figures are not completely representative of the changes in employment relationships over the last few years of austerity. During 2013 to 2014 there was a rise of 450,000 employed workers, however statistics reveal that from this number 319,000 were as employees and 150,000 were self-employed workers. The increase of self-employed workers from 2013 to 2014 was 3.6% compared to 1.3% of employed workers which suggests a significant growth in self-employment, indicating that this is a growing form of engagement in the labour market. Although it would be inaccurate to suggest that the traditional form of employment was not the dominant form of work for individuals, the level of self-employment in the UK has grown and is growing faster than any other form of employment (ONS, 2014). While these statistics tell us of a general increase in self-employment during the period of austerity, it is important not to look at these employment figures in isolation when examining the emergence of the self-employed as a significant part of the economy.
Figure 1.1: Employment status for all people aged 16 and over; United Kingdom; 1984 to 2002. Labour Market Trends. (ONS, 2003)

A more detailed view of the historical levels of self-employment statistics reveal a consistent level of self-employment throughout the 1980’s and 1990’s. This matches a reasonably stagnant employee level throughout the same period. Figure 1.1 illustrates a fairly stable level of self-employment apart from the period in the late 1980’s to 1990 when self-employment grew from 6.3% to 7.9% of the population, peaking at around 3.5 million self-employed. This peak occurred at a time of economic recession and one that is in some ways comparable with the peak in self-employment in the period of austerity recently experienced. Self-employment then fell during the early 90’s. It was in gradual decline towards the millennium but then it began to rise after the turn of the century. By 2003 self-employment returned to the levels of the late 1980’s reaching around 3.5 million (ONS, 2003; ONS, 2004). By the end of 2006 self-employment had risen to over 3.7 million and continued to rise to over 3.85 million by the end of 2009 while traditional employment was declining (ONS, 2010). During the period of austerity between 2008 and 2012 self-employment rose to 4.2 million. By contrast the number of employees fell between 2008 and 2012 by 434,000 with a drop of 600,000 between 2008 and 2009.

These statistics clearly illustrate a growth in the numbers of self-employed in recent times partially accounting for the erosion of traditional forms of employment (Beck, 1992). Although traditional employment remains the dominant model, in recent years the movement away from full time employment by an employer is clearly rising. These statistics appear to support the views expressed in the literature that highlight growth in entrepreneurial activity as many individuals are moving towards employment relationships that are independent of conventional organisations and traditional career paths (Down, 2010). Chapter 2 will consider the critiques regarding the nature and pace of these changes in employment relationships and consider the impact of these on individuals.

1.3 The entrepreneur as a hero?

To add context to the statistics provided in the previous section there has been praise for enterprise in academic and political discourse. A mainstream view of enterprise is that of the self-made heroic entrepreneur, centred on positive images of successful independent businesses (Casson and Casson, 2013). Such rhetoric of an ‘enterprising self’ has led to an ethos of enterprise that has consumed parts of entrepreneurial discourse (Du Gay, 1996). At its heart is the romanticised character of an entrepreneur who displays characteristics such as initiative, risk-taking, flexibility, independence, imagination, hard work and an internal locus of control (Gibb, 1993). This characterisation of
enterprise is coupled with entrepreneurial career forms, such as the ‘boundaryless’ or ‘portfolio’ career, which have emerged in academic discourse highlighting the positive benefits of flexibility and choice that individuals can enjoy by pursuing this type of career (Handy, 1990; Defillippi and Arthur, 1996).

Embedded within notions of enterprise is individualism (Ahl and Marlow, 2012). The language of enterprise has been characterised as a key lexicon around which life has been organised as individuals are required to manage ‘me-plc.’ (Nayak and Beckett, 2008). Reflecting the global shift towards greater neo-liberal individualism in society (Beck, 1992), enterprise has found itself at the centre of ‘optimistic individualism’ (Ahl and Marlow, 2012: 544) through its ability to enable the realisation of human potential for creativity and innovation (Down, 2010). In silos of academic literature the heroic figure of the entrepreneur has been characterised as one who bears the load of revitalising society and economy by leading us to the ‘promised land of economic growth and prosperity.’ Entrepreneurship has been characterised as the engine for economic growth, competitiveness and employment (Weiskopf and Steyaert, 2009:4) thus placing the entrepreneur as the ‘single most important person in the modern economy (Lazear, 2002, p.1).

The ‘politics of enterprise’ has gone from what was once exclusively the ideological property of the right to being enthusiastically adopted by both right and left wing administrations (Du Gay, 2004). The term enterprise culture is argued to be a political touchstone of Thatcherism emerging from a capitalist ideology embraced within parts of the conservative party pre-1979 (Armstrong, 2005). Thatcher’s aim was to ‘change the soul’ through economics (Du Gay, 2004) communicating a moral prescription that people should be enterprising - not simply for economic necessity but also as a moral choice as it became imbued with the meanings of good citizenship and individual responsibility. Despite industrial restructuring and the consequential unemployment that was sweeping Britain at the time (Chell, 2007) enterprise was positioned as a challenge to people to be confident enough to ‘go it alone’ thus associating enterprise with connotations of bravery and endeavour (Fairclough, 1991).

In 1997 the election of the New Labour government re-energised the Thatcherite enterprise policies of the 80’s. In Tony Blair’s ‘Third way’ enterprise was no longer solely concerned with the competitiveness of British industry but was also linked to policy goals of fairness and social democracy (Nayak and Beckett, 2008). The promotion of enterprise went hand in hand with an attack on poverty and discrimination to emphasise that there was ‘opportunity for all’ if individuals were brave and
hardworking enough to undertake it. Governments glorified enterprise reinforcing the idea that success, equality and poverty can all be addressed by undertaking entrepreneurial activity.

More recently the politics of enterprise espoused by the Thatcher and Blair eras appears to continue with David Cameron’s government in the context of continuing economic difficulties. Prior to the 2010 election the Shadow Chancellor, George Osborne cited enterprise as a way of ‘getting Britain working’ reinforced by the rhetoric of aspiration and opportunity for all (George Osborne, 2010). Following their election win, the Conservative party’s ‘Get Britain Working’ policy was announced as both a ‘moral and economic’ plan to ‘tackle’ unemployment and welfare. A key aspect of this was the role of enterprise in encouraging the British people to help themselves and the economy in a time of crisis. At the 2011 Conservative party conference David Cameron publically declared war on ‘enemies of enterprise’, by championing the ingenuity of British people and promising that government would:

“Be on the side of everyone in this country that wants to create jobs, and wealth and opportunity… …We understand that enterprise is not just about markets... it’s also about morals. We understand that enterprise is not just an economic good, it’s a social good too”. (David Cameron, 2011)

The message from Cameron reflected the style of Thatcher’s government in the 1980’s as he claimed enterprise was as much about moral responsibility as helping the economy.

In the context of the predominantly positive take on enterprise by a body of academic literature and political discourse, some authors have called for the need for literature to address the ‘dark sides’ of entrepreneurship as an alternative to popular clichés, and narrow conceptualisations of the phenomenon (Rindova et al, 2009). Others have called for more critical approaches to enterprise (Down, 2010) which this thesis intends to address. It contrasts the optimistic interpretations of entrepreneurial activity by building on the work of Sennett (1998) and Marchington et al, (2005) by suggesting that the increasingly fragmented nature of work results in anxiety for those involved in this employment form. Furthermore, given that the structural changes to firms have led to more outsourced and subcontracted work (Grimshaw et al, 2001) it will consider the extent to which workers are being forced into involuntary self-employment as a result of the erosion of conventional organisational structures (Kautonen et al, 2010).

1.4 From cultural to creative – the growing significance of the creative industries.

The unit of analysis in this study is the creative industries and more specifically the digital games sector. The categorisation of this sector has prompted debate surrounding the nature of its composition and its purpose to create an economically powerful sector. In this section I will chart this
debate, examine what the categorisation has achieved and illustrate the growing significance of this collection of sectors.

In 1998 the then newly created Department for Culture, Media and Sport (DCMS) set out what the creative industries were to include. These were defined as:

“Those which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property”. (DCMS, 1998:3).

This categorisation included advertising; architecture; art and antiques; crafts; design; designer fashion; film; interactive leisure software; music; the performing arts; publishing; software and computer services; and television and radio (DCMS, 1998). The definition by the DCMS achieved a number of goals. The broad definition of the creative industries enabled the government to link various sectors together to create an economically vibrant sector of industry (Hesmondhalgh, 2012). The critical inclusion of the computer software sector immediately enabled the creative industries to be seen as a larger and more significant part of the economy (Garnham, 2005). An optimistic viewpoint of these changes is that it permitted all ‘creative activities’ to benefit from the prestige surrounding this recategorisation and allowed the government to put creativity at the forefront of economic activity (Tremblay, 2011: 290). However, others have described this as a “redefinition of the grounds, purposes and instruments of policy” (Garnham, 2005: 16) or a ‘political trick’ enabling the identification of an economically competitive ‘new economy’ driven by digital technologies and intellectual property. This allowed governments to select positive areas from the creative industries to inform policy (O’Connor, 2007) resulting in the “intensive commodification” of artistic activity (Banks and O’Connor, 2009: 365). From this we can see that the movement from the cultural industries to the creative industries is more than a simple shift in terminology. The political movement by the New Labour government in the late 1990’s bundled together a broad collection of industries to construct the creative industries in order to fit a new Cool Britannia image, a new economic order and a new key growth sector (O’Connor, 2007).

The growth of this sector is reflected in the statistics. As a result of the change in terminology the creative industries have become a substantial and growing part of the UK economy. In 2000 the sector contributed £44.8 billion, 6.8% of Gross Added Value (GVA), to the UK economy (DCMS, 2007). By 2012 the sector had grown and contributed £71.4 billion (5.16% GVA) in a time of economic recession (See table 1.1 for a more detailed overview of growth in the creative sector) (DCMS, 2014). A more
A detailed analysis illustrates the significance of IT, software, and computer services within the recategorisation. It was the only sector with significant continuous growth (See figure 2) and the largest sector in the creative industries accounting for 43% of GVA.

<table>
<thead>
<tr>
<th>Creative Industries Group</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tr>
<td>Advertising and marketing</td>
<td>£8,347</td>
<td>£6,967</td>
<td>£6,840</td>
<td>£8,099</td>
<td>£10,229</td>
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<td>Architecture</td>
<td>£3,565</td>
<td>£3,205</td>
<td>£2,638</td>
<td>£3,223</td>
<td>£3,401</td>
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<tr>
<td>Crafts</td>
<td>£195</td>
<td>£218</td>
<td>£268</td>
<td>£266</td>
<td>£248</td>
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<tr>
<td>Design, product, graphic and fashion design</td>
<td>£1,856</td>
<td>£1,886</td>
<td>£2,049</td>
<td>£2,504</td>
<td>£2,491</td>
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<tr>
<td>Film, TV, video, radio and photography</td>
<td>£8,801</td>
<td>£6,923</td>
<td>£7,973</td>
<td>£9,979</td>
<td>£9,752</td>
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<td>IT, software and computer services</td>
<td>£26,019</td>
<td>£26,403</td>
<td>£26,991</td>
<td>£27,939</td>
<td>£30,904</td>
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<td>Publishing</td>
<td>£9,255</td>
<td>£8,968</td>
<td>£9,580</td>
<td>£9,228</td>
<td>£9,706</td>
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<tr>
<td>Museums, galleries and libraries</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Music, performing and visual arts</td>
<td>£3,740</td>
<td>£3,779</td>
<td>£3,434</td>
<td>£4,039</td>
<td>£4,574</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>£61,784</strong></td>
<td><strong>£58,391</strong></td>
<td><strong>£59,825</strong></td>
<td><strong>£65,277</strong></td>
<td><strong>£71,305</strong></td>
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<td><strong>UK Total (ONS Blue Book, ABMI)</strong></td>
<td><strong>£1,312,112</strong></td>
<td><strong>£1,280,261</strong></td>
<td><strong>£1,327,923</strong></td>
<td><strong>£1,360,925</strong></td>
<td><strong>£1,383,062</strong></td>
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<td><strong>Percentage share of UK Total</strong></td>
<td>4.71%</td>
<td>4.56%</td>
<td>4.51%</td>
<td>4.80%</td>
<td>5.16%</td>
</tr>
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Table 1.1: Employment in the Creative Economy in 2012, Creative Industries Economic Estimates, DCMS (2014)

The economic growth of the creative sector is also reflected in the numbers employed. By 2008 the creative industries had the largest creative sector in the EU with 1.1 million people working directly in the creative industries and a further 800,000 working in creative jobs outside the creative sector.
The growth of employment in the creative economy meant that by 2012 there were 2.55 million ‘creative’ jobs in the UK representing 8.5% of total UK employment. In a time of austerity, between 2011 and 2012 employment within the creative economy grew by 143,000 (DCMS, 2014). Unsurprisingly, the growth of employment in the creative industries correlates with economic growth statistics placing IT, software and computer services as the most significant area of employment within the sector. Of the 2.55 million jobs in the creative sector 31% were in the IT, software and computer services thus dwarfing other areas in the creative sector. The second largest sector, that of advertising and marketing employs 465,000 (DCMS, 2014). In terms of growth in numbers employed, the software, computer games and electronic publishing sector is the highest across the creative industries. Growth in that sector was at 5% per annum from 1997 to 2008 (Skillset, 2011). These statistics suggest that creative occupations are a significant element of the UK economy with IT, software and computer services serving as a central component. In the creative industries there is a reliance on freelancers, 75% of employers in the creative industries said that their need for freelance workers had increased or had remained the same in the year 2010 to 2011 with a further 24% of employers believing that their requirement for freelancers would increase in the following year suggesting that there is a reliance on freelance workers for growth in the future (Skillset, 2014). This evidence gives us some indication of the makeup of work in the creative sector and the reliance on casual work arrangements that are prevalent in this sector.

This short statistical review also supports those who argue that the creative sector has been adjusted for political reasons (O’Connor, 2007; Garnham, 2005), economic imperatives (Hesmondhalgh, 2012; Banks and O’Connor, 2009) and to identify a key area of strength in the ‘new economy’ with digital technologies driving this growth (O’Connor, 2007). The question remains however, what did the change in terminology achieve?

Creative industry policies became central to the new ‘Cool Britannia’ branding in the mid to late 90’s creating hype and optimism (O’Connor, 2007). The political and economic value of the recategorisation allowed perceptions of employment in these industries to be celebrated as ‘flexible’, ‘liberating’ and ‘cool’ (Reeves, 2001) as creative workers were characterised as “powerful troops of contemporary social life.” They had an image of excitement, flexibility and prestige (Holt and Lapenta, 2010). Florida (2002) argued that this gave rise to the creation of a ‘new class’ of creative worker who was identified as a group of individuals who added economic value through their creativity. This class was defined by characteristics such as autonomy, flexibility, their own identity, a hardworking mentality, independence, and importantly a wealth of labour market opportunities. However, critics
have argued that Florida’s idea of a new creative class is absent of any empirical investigation (O’Connor 2007: 39). Furthermore, the diversity of ownership, the employment status and the highly personalised nature of creative work highlights the difficulty of uniting this labour power (McKinley and Smith, 2009).

In this section it has been argued that the strength of the creative industries is built on political and economic foundations. The supporting literature questions the rationale of this ‘common group’ (Banks, 2007; Townley et al, 2009). However, there are factors that bring these industries together. Hesmondhalgh and Banks (2009) suggest that the sector involves a type of labour that might be characterised broadly as ‘creative’, or ‘artistic’. Hesmondhalgh (2012) draws on the common challenges of risk and uncertainty in the production of creative products. A number of scholars have highlighted the inherent tensions between autonomy, commercial pressures and commonalities in creative production (Caves, 2000; Lampel et al, 2000; Townley et al, 2009). Furthermore, creative workers have been grouped together due to the affective attachment they have with their work (Thompson et al, 2015). Also, the methods of production have influenced work arrangements resulting in commonalities in employment relationships characterised by project based work, temporary contracts and freelancing (Barley and Kunda, 2004; Blair et al, 2003). Furthermore, the creative sector is an exemplar of how structural forces have combined with agency to promote common values of entrepreneurialism (McRobbie, 2002).

In summary, this section has illustrated the movement from the cultural to the creative industries placing it at the heart of economic competitiveness. The key inclusion of IT, software and computer services has allowed the creative sector to be characterised as a sector of growth and one of significant numbers in employment. Although there are criticisms that surround whether this group of workers can ever be seen as a ‘common group’ (Banks, 2007) the alternative argument suggests there are factors that bring this collection of industries together. Commonalities in the nature of production, inherent tensions surrounding autonomy and commercial pressures, the affective attachment creative workers have towards their work, employment relationships characterised by project work, temporary contracts and freelancing suggest that the creative industries can be understood, at least in some respects, as a common grouping.

1.5 Celebrations of enterprise in creative work
Since the creative industries conception, ‘creative’ jobs have been compared favourably with ‘uncreative’ and alienating jobs suggesting that creative workers are free to utilise their intellectual
and artistic talents and enjoy enhanced control over the labour process (Hesmondhalgh and Banks, 2009). This characterisation rests on the premise that the values of freedom, autonomy and choice predispose individuals to pursue self-employment and entrepreneurialism in search of self-exploration and self-fulfilment (Leadbeater and Oakley, 1999). Alongside this, individuals employed in the creative industries have been encouraged by promises of wealth and fame embedded within creative industry discourse. Hesmondhalgh and Banks (2009) discuss the drive for workers to develop entrepreneurial skills and cite the use of success stories in the creative sector maintaining anyone could ‘make it’ citing Shakespeare and a series of well known ‘creatives’ as examples of people who have been successful. The drive for enterprise served to reinforce New Labour ‘Cool Britannia’ branding and ultimately led to altering expectations of the creative workforce to become a ‘creative class’ of model entrepreneurs (Coulsen, 2012).

More recently political discourse and media comment has followed New Labour’s drive for entrepreneurial skills by celebrating and positively encouraging enterprise in the creative sector. Policy initiatives introduced by the Conservative government have not only associated creative work with freedom and autonomy and self-fulfilment but the sector has increasingly been associated with secure work and economic prosperity in a cultural and economically vibrant environment. For example, when announcing tax breaks for film and animation industries Chancellor George Osborne said:

“This highlights the valuable cultural and economic contribution that our creative industries make to the UK. These fast growing sectors are creating jobs across the country and each new job means security for another family”. (George Osborne, 2014)

Encouraging enterprise in the digital sector has been central to the strategy of the Conservative government in the hope that it will make Britain an attractive place for innovation and entrepreneurialism. In 2010 the Conservative government, through its Blueprint for Technology policy initiative set out a plan to encourage innovation in the technology sectors with the aim of making London’s East End a rival to Silicon Valley (Blueprint for Technology, 2010). This has been reinforced by using entrepreneurship in the digital sector as an exemplar, thereby encouraging others to undertake enterprise. In his 2010 speech to the Conservative party conference David Cameron set out his vision of socially responsible and popular capitalism:

“We need to end the fear that says this opportunity is only for a few. I admire more than almost anything the bravery of those who turn their back on the security of a regular wage to follow their dreams and start a company. If you take a risk, quit your job, create the next Google or Facebook and
wind up a billionaire, then more power to your elbow. And if you took a punt, invested your money in that hugely risky start-up, and made a fortune, then fair play to you. And let's also recognise those people who take risks, who don't succeed first time but persevere. I'm not just open to that type of success - I actively want to see it happen”. (David Cameron, 2012)

The encouragement of enterprise within the digital sectors has pervaded media discussion. Well publicised success stories have supported policymakers by highlighting dotcom millionaires such as Mark Zuckerberg, alongside popular games such as Angry Birds, thus creating a ‘myth of success’ (Bergvall-Kåreborn and Howcroft, 2013) whereby small start-ups can achieve success by producing mobile applications. However, recent media reports have shown an alternative side to the celebration of enterprise in the digital sector. These highlight the precarious nature of the work and low pay arguing that the force feeding of enterprise does not reflect the experiences of software workers, and that entrepreneurial career forms are getting software workers precisely nowhere (The Guardian, 2013). This leads us to question the true nature of entrepreneurialism in the creative industries. A number of studies address challenging market conditions in the creative industries although a limited number show how entrepreneurial activity reveal the exploitative and precarious work conditions to which workers are exposed (Haunschild and Eikhof, 2009; Coulsen 2012; Bergvall-Kåreborn and Howcroft, 2013). Faced with these contrasting accounts of entrepreneurialism in the creative sector, the aim of this thesis is to explore the lived reality of enterprise in the digital gaming sector.

1.6 The digital games sector

Despite considerable research and published work on the labour process within creative industries in areas such as music, TV and film, the digital games sector seems to be comparatively under-researched. Likened in economic scale to the Hollywood film industry (Zackariasson et al, 2006) the digital games sector is valued at around £2.9 billion to the UK economy, the third largest in the world (Skillset, 2011). It contributes $68.3 billion to the global economy (Euromonitor, 2014). An example of the symbolic significance of this sector is the console title Call of Duty: Black Ops 2, which was the UK’s biggest selling entertainment release of 2012 selling 1.2 million more copies than the top selling music album ‘Our Version of Events’ by Emile Sande (BBC News, 2012). In digital games, dominant titles generate substantial revenue and are periodically released with development firms being able to rely on the historical success of these titles to predict future sales. Examples of this phenomenon include Halo, Assassin’s Creed and Grand Theft Auto. Despite the success of the digital games sector in the UK, it is still regarded as a risky industry and is characterised by instability having gone through a number of changes which have influenced work in the sector.
Recently, digital games firms have adapted to major technological change impacting on product innovations, power relations in the sector (Parker et al, 2014), government U-turns and European Commission investigations over tax breaks (Keynote, 2014) and the changing demographics of users which has influenced consumption (Prato et al, 2010). Like other areas of the creative industries (Hesmondhalgh, 2012), large publishers have tended to keep to existing formats and genres in the production of games in order to meet commercial demands. Given that new concepts which are unfamiliar to customers involve the investment of a significant amount of capital in research, development, distribution and marketing activities, the lack of predictability of success has influenced large digital games companies to rely on established titles (Keynote, 2014).

In another major development, the UK government has encouraged innovation in the sector and has made attempts to stimulate the creation of games. Government incentives in the form of tax relief has been introduced giving developers 25% tax relief on up to 80% of a game’s production budget providing the money is spent on designing, producing and testing the titles in the UK. (Keynote, 2013). The incentive was seen as a key development for games producers in the UK as France, Canada and Ireland also had similar incentives in place to stimulate development. However, tax breaks were put on temporary hold by the European Commission on the basis that it gave UK developers an unfair advantage over the competition. Even though the European Commission has approved the tax break the confusion has contributed to instability in the sector as large development firms have moved production to more advantageous geographical locations (Keynote, 2014).

Recent significant innovations in business models have changed the way games are consumed. This has influenced the structure of the sector and the composition of firms within it. Typically, console manufacturers have held a very strong position within the value chain controlling four main actors: the developer, the publisher, the distributor and the retailer (Johns, 2006). The developer created the content and the publisher has acted as the agent for pre-developed products. The publisher procures the services of the developer and finally the distributor linked the publisher and retailer (Datamonitor, 2009). In recent years games firms have consolidated horizontally and vertically and this has had a significant effect on the structure of the sector. Broadly speaking the larger companies have attempted to internalise a range of these activities. Although independent developers remained an important feature of the sector, the ecosystem was controlled by the dominant console manufacturers and publishers Sony, Nintendo and Microsoft (Phillips et al, 2009).

Recently, the distribution of smartphone handsets, the affordability of mobile data plans and the arrival of tablet computers have offered opportunities for developers to adapt existing and develop
new types of games for this market (Bergvall-Kåreborn and Howcroft, 2013). As a consequence mobile devices have become the fastest growing gaming platform (Stewart and Misuraca, 2013). The rapid growth of the sector, the dynamic changes to digital games products and the emerging technologies have affected working practices and lowered barriers to entry within the sector. The rapid rise of the number of mobile games, plus increasing smartphone and iPhone sales are transforming the mobile market. The digital games sector now has increased accessibility to digital platforms which has encouraged the supply of online content. Apple’s iPhone Software Development Kit (now iOS software development kit) and Google’s open source Android platform for mobile phone development have allowed mobile apps to be developed and sold on a variety of mobile phones in stores including the App store and Google Play stores respectively (Bergvall-Kåreborn and Howcroft, 2013).

In the context of the positive spin on entrepreneurialism in the digital sector highlighted previously, this critical lowering of barriers to entry has further encouraged enterprise. Third party game developers are now able to create and bring to market their own games, predominately on mobile platforms, for a significantly lower cost both in terms of development time and finance. Perhaps changing market conditions go some way to explaining the changes to constitution of firms in the sector and the trend towards smaller development teams. Employment statistics reflect this change and also reinforce the unstable nature of the sector. The number of developers working in digital games in the UK dropped to 7,000 in 2009 from an industry high of 9,400 in 2004 (Skillset, 2011). Furthermore, the sector is characterised by small development teams; the vast majority of companies (80%) have fewer than four employees and a further 5% have between 5 and 9 employees. Only a small proportion of the sector (5%) is made of games firms who have between 100 and 249 employees (Keynote, 2013). Ostensibly, these changes appear to have given developers choices in terms of work and employment: whether to work for a large game studio as an employee or to work in an independent studio as self-employed developers. The lowering of barriers to entry combined with political and media encouragement of enterprise makes independent development seem a viable option.

Research in the area of digital games has tended to focus on managerial tensions when reconciling creative, technical and commercial imperatives (Tschang, 2007), issues of insecurity, autonomy and identity (Thompson et al, 2015), the quality of work life and the exploitative working conditions (Robinson, 2005; Peticca-Harris et al, 2015), the employment relationships (Peuter and Dyer-Witherford, 2005), the managerial attitudes towards control (Cohendet and Simon, 2007) and the evolution of skills development (Izushi and Aoyama, 2006). However, such work has typically focused on the relationship between console game manufacturers and developers and only a very limited
amount of the published literature has recognised the new working practices in independent games production and the implications that this has had on developers (Martin and Deuze, 2009). It is in the context of limited research on entrepreneurialism in the digital games sector where this thesis aims to make a contribution.

1.7 Research aims
This section has argued that self-employment is a growing form of employment relationship as many individuals are moving outside of conventional organisational boundaries and traditional career paths. To add context to this argument, media and political discourse has encouraged the rise of this career form by purveying positive benefits that come from these boundaryless or portfolio careers (Handy, 1990; DeFillippi and Arthur, 1996). However, in contrast to optimistic portrayals, others have highlighted the increasingly fragmented nature of work, and anxiety notions of involuntary self-employment as individuals are forced into self-employment due to the erosion of conventional organisational structures (Kautonen et al, 2010).

Areas of academic, political and media discourse have embraced enterprise in the creative sector which has ultimately led to altering expectations of the creative workforce to become a creative class of model entrepreneurs (Coulsen, 2012). These have been encouraged by promises of wealth and fame and notions of freedom, flexibility and choice (Leadbeater and Oakley, 1999). However, contrasting accounts of enterprise in the creative industries reveal exploitative and precarious conditions (Haunschild and Eikhof, 2009; Coulsen 2012; Bergvall-Kåreborn and Howcroft, 2013).

In labour process literature, despite its considerable economic and symbolical significance, the digital games sector is comparatively under-researched when compared with other areas of the creative industries. Typically, research in the area of digital games tends to focus on the relationship between console manufacturers and developers, not taking into account new working practices and evolution of business models which has made independent development more viable (Bergvall-Kåreborn and Howcroft, 2013).

Therefore, the purpose of this thesis is to subject to critical scrutiny the heroic notions of enterprise encouraged by academic, political and media discourse in the creative sector with specific application to the digital games sector. The research aims are as follows.
• To investigate market conditions in the digital games sector, with a specific focus on the North West, and examine how changes in the labour market contribute towards entrepreneurialism and enterprise.

• To explore how changing labour markets and the rise of enterprise and entrepreneurialism shape the working conditions and experiences of developers.

• To investigate how developers perceive changing market conditions in the digital gaming sector and explore developers’ interpretations of entrepreneurial activity.

• To examine the ways in which individuals articulate and rationalise changing working conditions.

1.8 Overview of the thesis

The thesis will be structured in the following way:

Chapter two considers work and employment in the context of changing employment relationships. It critically examines the factors influencing the changing nature of employment and examines the emergence of enterprise in the economy.

Chapter three is dedicated to the focus of this thesis, the creative industries and more specifically the digital games sector. It discusses production in the creative industries, the labour process in software and digital games and then examines and considers changing employment relationships in its application to the creative industries and the software and digital games sector.

Chapter four will outline the case of the digital games sector and the methodological approach of this research. It demonstrates that the location of the research provides an interesting and distinctive context for the study. The chapter then turns to discussing the methodological justification for the research.

Chapter five is the first of three chapters that presents the findings of the study. It highlights interpretations of market conditions in the regional sector and considers how different interpretations of these conditions frame the actions of developers.

Chapter six considers the impact of self-employment on developers’ working lives. It uses Pongratz and Voß’s (2003) conceptualisation of ‘the entreployee’ centrally to illustrate how work in digital gaming can be characterised as increasingly entrepreneurial. Categories of self-control, self-
commercialisation and self-rationalisation are used in order to understand the working conditions of developers.

Chapter seven focuses on how developers rationalise their work conditions. The first part of the chapter focuses on individual values and beliefs that provide meaning in developers’ work. The second part of the chapter consider the influence of the occupational community in shaping the values, beliefs and motivations of its members.

The final chapter (chapter eight) draws conclusions and discusses the implications for the research. It also considers its limitations and offers suggestions for future research.
2.0 Has Employment Changed?

2.1 Introduction

This chapter considers work and employment in the context of changing employment relationships. More specifically, its purpose is to critically examine the factors influencing the changing nature of employment and to examine the emergence of enterprise in the economy. The chapter begins by highlighting the key changes in the nature of employment in the UK and OECD member states which represent a shift from Fordist to post-Fordist methods of production and consider how this results in the increasing use of peripheral labour relations.

In section 2.3, the chapter explains how advocates of the end of work thesis suggest that we are experiencing a more individualistic society driven by conditions generated by contemporary capitalism and by illustrating how contemporary work and capitalist production has created tensions surrounding the fragmentation of work, insecurity, and connection with work. The chapter then considers the relationships between changing organisational structures and societal attitudes and the emergence of boundaryless and portfolio careers and contrasts optimistic portrayals of ‘boundaryless’ and ‘portfolio careers’ supported by optimistic claims of freedom, flexibility and autonomy with accounts of precarity and insecurity as individuals adjust to new work arrangements. Following this, the chapter then addresses criticisms that challenge the validity of the arguments presented in order to emphasise how a comprehensive review of the literature helps to provide an accurate account of changing employment relationships.

In 2.6 the focus of this chapter moves to an understanding of changing contemporary careers within the context of enterprise and entrepreneurialism and considers how individuals have been encouraged to adopt ‘enterprising characteristics’. It will then contemplate the factors driving self-employment and it analyses the extent to which individuals are ‘forced’ into self-employment due to the paucity of available alternatives. Finally, this chapter will assess the relevance of the conceptualisation of ‘the entreployee’ (Pongratz and Voß, 2003) in order to understand the impact of entrepreneurial activity on individuals that take on this career form. It will use this conceptualisation centrally to illustrate the importance for individuals to understand the centrality of this in their life and highlight how work becomes increasingly intensified for self-employed workers.

2.2 Understanding Employment Change

Over the past 30 years there have been considerable changes regarding the nature of employment represented by a shift towards a post-Fordist industrial society (Beynon et al, 2002). Traditionally
careers have been associated with internal labour markets and long term employment (Gold and Fraser, 2002). ‘Linear’ careers provided a common work role, upward mobility and a notion of stability for the workforce (Driver, 1982). Economic activity in the ‘new economy’ (Reich, 1991) has been characterised by different organisational forms, smaller workplaces and diverse contractual arrangements. Changes such as corporate restructuring, innovations in technology and new lean techniques have resulted in new forms of fragmented organisations employing fewer people and moving towards outsourced and subcontracted work (Grimshaw et al, 2001; Rosenthal, 1995).

In the mid-20th century the dominant era of Fordism allowed organisations to gain from economies of scale and increased productivity and profits (Bratton and Gold, 2013). The Fordist model of production was much more than a philosophy of production and represented a new way of life for individuals (Edgell, 2012). Fordism typically favoured standardised production in stable mass markets and was broadly epitomised by large corporations, who employed mass production methods and divisions of labour and a low trust strategy from employers (Thompson and McHugh, 2002). In return for strict controls the workforce, which was predominantly male, was offered higher pay, full time permanent regular work, job security, and social provisions which in turn encouraged values and behaviour such as self-discipline and reliability that were considered vital to commercial success (Edgell, 2012).

However, since the 1970’s there has been considerable discussion of changes to the workplace that suggest a movement away from Fordist production towards a new, post-bureaucratic forms of organisation which characterised the new economy. Thompson and Warhurst (1998), Thompson, (2003) and Hirst and Zeitlin (1991) note a degree of cynicism regarding the pace and nature of changes to employment relationships. Central to these arguments is the suggestion that post-Fordist scenarios are at odds with reality and lack analytical or empirical coherence (Thompson and Warhurst, 1998; Thompson, 2003) or overstated because they bring together different conflated political and economic changes (Hirst and Zeitlin, 1991). However, there is evidence that suggests the movement from Fordist to post-Fordist production has influenced the relationship organisations have had with their employees (Piore and Sabel, 1984).

Some have stressed that the shift from Fordist to post-Fordist methods of production stems from a major transformation in the nature of the industrial economy and society and identified this as ‘the second industrial divide’ (Piore and Sabel, 1984; Beynon et al, 2002). ‘Flexible specialisation’ reflected the increasing demand for specialised products, making the Fordist system of mass production and the old economics of scale that Fordism enjoyed redundant (Thompson and McHugh, 2002). Whereas
Fordist production was characterised by stable markets, large corporations, mass production, divisions of labour and low trust from employees, flexible specialisation was typified by specialised and volatile markets, small firms, flexible production, an upgrading of employee skills and high trust between employee and employer and collaborative structures in the workforce (Bramble, 1988). The arrival of flexible productive capacities brought about by technological innovations such as ICT’s and computer aided systems introduced increased efficiencies for firms and enabled them to convert the traditional organisational structure into more supple organisational forms capable of responding to market conditions and demand (Piore and Sabel 1984; Kenney and Florida, 1993). As the economic model of flexible specialisation was based on the relationships between small firms and artisan production, it allowed larger firms to decentralise their work and outsource their production to subcontractors enabling firms to hold a smaller core workforce which in turn has led to different employment relationships. This model changed the relationship between workers in the production chain as flexible specialisation encouraged increased participation between the producers, managers and the worker particularly in relation to the latter’s intellectual participation. This made knowledge a prime factor of production rather than land, labour or capital which therefore caused intellectual work and the new economy to become more important (Thompson and McHugh, 2002).

Organisations implementing flexible specialisation policies have led to a series of changes. It meant that the external and internal boundaries of the organisation were redrawn as were employment relationships within the organisation (Guest, 1990). Consequentially the traditional full-time nature of work which characterised the Fordist model was eroded which impacted on the types of jobs available. In the 1950’s and 1960’s full time, stable superannuated labour force was prevalent. However, by the 1980’s and 1990’s this had been combined with a more flexible, knowledge based workforce and the use of a labour force which included more part time, temporary and self-employed workers (Beynon et al, 2002).

Associated with post-Fordist perspectives the most widely used framework to understand these changes to employment forms and relationships is the flexible firm model developed by Atkinson (1984). It represents a move from a core workforce to a cluster of peripheral employment relations (Thompson and McHugh, 2002).
The flexible firm model (see fig 2.1) describes the firm looking for three kinds of flexibility: functional (employees moved between activities and tasks), numerical (headcounts can be quickly increased and decreased) and financial (pay reflects the labour market and that pay flexibility facilitates numerical or functional flexibility). This model represents the orthodox hierarchy of the firm being broken up into increasingly peripheral flexible groups of workers resourced by the use of outsourcing, temporary employees and self-employed workers. Additionally, the erosion of the full time permanent workforce and its replacement by non-standard forms of work arrangements, while increasing the organisations’ flexibility, limits the organisations’ commitment to the worker and crucially the individual’s job security (Atkinson, 1984). The implications of this is that it divorces the worker from the organisation and when one contrasts this model to the Fordist structures of employment, it can be seen that it has the effect of making work more unstable.

This section has illustrated that the movement from Fordist to post-Fordist production has changed not only the nature of work that employees did but has also the influenced the work arrangements and the types of employment relationship that individuals have. Fordism, which typically was characterised by full time work and mass production was replaced by flexible specialisation resulting in more supple organisations that have made organisations more capable of responding to changing market conditions. Due to changes in their structure firms have become more nimble and adaptable. The flexible firm model illustrates the structural changes that firms have employed and highlights the
changing relationships between and firm and the employee, and as these structures have changed so have the employment relationships that individuals have with employees. While the validity of this argument will be considered later in the chapter, the next section will focus on the changing meaning of work in light of the changing nature of employment.

2.3 The Changing Meaning of Work

The work of Bauman (1998), Beck (1992) and Sennett (1998) are grouped together by scholars describing an ‘end of work’ thesis which emphasises a change in the position work occupies in people’s lives united by accounts of fragmentation, individualism and disconnection (Stranglemen, 2007). A central argument surrounding this subject is that we have entered an ‘age of insecurity’ in employment as nonstandard work arrangements, driven by organisations’ desire for flexibility, have resulted in insecure work and that this characterises the ‘post-industrial age’ (Beck, 1992; Doherty 2009). For Beck (1992), the changes to the labour market and to contemporary careers have impacted on the character of individuals. Neff (2007) highlights how changing organisational structures resulting in flexible, short term work has put more responsibility for getting and keeping work on the employee themselves, thus increasing fears of job insecurity as individuals are exposed to cyclical economic risk. Ultimately, Beck (1992) argues that we have entered a more individualistic society as the traditionally homogenous and collective nature of employment has now been replaced with mobility and competition with individuals being “encouraged” to take charge of their own lives.

The end of work thesis highlights the loss of attachment from social relationships at work as the increased fragmentation of work, and lives driven by choice, contingency and risk have led individuals to be orientated to a normative goal of ‘responsibility for the self by the self’ (Riach and Loretto, 2009) as individuals bear the responsibility to engage with work (Beck, 1992). This thesis is exemplified by Bauman (1998) as he describes a changing society where individuals live in an age where consumerism and a reduced work ethic results in work losing its power and meaning in people’s lives (Bauman, 1998). These factors have contributed to a diminishing relationship with work and have forced individuals to be reflective about their identities given their increased responsibility to themselves (Giddens, 1991).

A central tenet surrounding ‘the end of work’ thesis is how work provides a means of identity. It suggests that work has “lost its position as an axis around all other attempts that identity building rotate”, “is no longer a way of identifying one’s place in the world” (Doherty, 2009: 86), has distorted the character-forming function of work (Sennett, 1998) and no longer provides substance for a
permanent identity to be defined or secured (Bauman, 1998). Furthermore, this thesis questions the role of social relations at work as individuals are disembedded from the ‘historically prescribed social forms and commitments’ associated with traditional work arrangements as work has lost significance as a ‘locus of social relations’ (Doherty, 2009: 86). This impact of this is as Sennett (1998) suggests, is that social relations have become increasingly short term and limited, which has then damaged self-identity as social relations are a key part of identity formation.

The ‘end of work thesis’ has taken it’s place alongside labour process debates regarding capitalist production and the individual. Castells (1996) suggests that changes to contemporary work such as decentralised management, individualising work and customised markets has resulted in both segmented work and fragmented societies thus representing an ‘individualisation of the labour process’. This has coincided with work in the labour process literature which attempts to understand the subjective experiences of individuals at work. As a response to Braverman’s (1974) neglect of work on subjectivity in favour of objective analysis, there have been attempts to take into account ‘the missing subject’ (Doherty and Wilmott, 2001). Collinson (2003) challenges a functionalist paradigm that understands subjectivity in the context of a rational and coherent economic man which was reflected in some earlier objectivist accounts of modes of organisational analysis. He highlights an account of the self that sees the individual as being self-conscious, and having the ability to separate himself or herself from the social world and, thus have the creative potential to envisage alternative realities. Anxieties in subjectivity are understood as a product of the conditions generated by capitalism to control an individual’s notion of self, such as disciplinary mechanisms, techniques on surveillance and power strategies (Knights and Wilmott, 1989). As the individual is seen as having a desire to be a free, creative and autonomous subject (Ezzy, 1997) the activation of these traits and therefore a secure sense of the self or identity is constituted through the mediation of these power and control mechanisms (Knights and Wilmott, 1989).

Sennett’s (2008) analysis, which is, in some respects, similar to those of debates around subjectivity, argues that contemporary workplace practices degrade the work experience of the individual to the extent that it can damage workers’ self-identity. Sennett’s argument is that the values of freedom and autonomy that contemporary work practices pursue in search of flexibility, produce structures of power and control rather than increase freedom and autonomy. Although it is not uncommon to suggest that capitalist production is harmful to work based identities, this suggests that the promises of increased freedom from supporters of a new capitalism can be called into question (Tweedie, 2013).
The work of Sennett, Beck and Bauman argues that due to external pressures or bureaucratic controls, work loses its ability to define an individual’s identity.

The magnitude of this shift has been questioned with varying degrees of criticism. For some, the accounts of Beck (1992), Giddens (1991) and Sennett (1998) are described as a ‘nightmare’ scenario borne from little empirical evidence and overly simplistic accounts of work and new capitalism (Fevre, 2007). For others, this ‘overly nostalgic’ view is misrepresentative of the scale of shift in employment and has been over emphasised and suggest that work still provides the structure and meaning in people’s lives (Strangleman 2007). Parry et al, (2003) does admit that work provides meaning for some individuals. Furthermore, MacKenzie et al, (2006) argue that work demonstrates a sense of identity amid fragmented circumstances. However, both Parry et al, (2003) and MacKenzie et al, (2006) reinforce the importance of occupational communities to provide meaning in work connecting with literature that highlights how occupational communities influence how people see themselves in their work role and in turn, the values that are associated with it which become part of their self-image (Salaman, 1974).

Sveningsson and Alvesson (2003) suggest that fragmented work doesn’t necessarily lead to fragmented identity pointing to ‘identity work’ which highlights an ongoing mental activity that individuals undertake in order to construct an understanding of the self that is coherent, distinct and positively valued (Alvesson et al, 2008). The concept of ‘identity work’ concerns individuals actively engaging in ‘forming, repairing, maintaining, strengthening or revising constructions that are productive of a sense of coherence and distinctiveness’ (Svenningsson and Alvesson, 2003: 631). This is based on a social constructionist position where personal identities are not fixed but are shaped by discursive forces in their environment (Svenningsson and Alvesson, 2003). Drawing on the influence of external forces Watson, (2008) argues that individuals express agency and bring their own meaning to their work orientations as images and representations (physical, symbolic, verbal, textual and behavioural). These become imbued with meaning and are taken as part of one’s identity (Beech, 2011). Therefore ‘identity work’ can be described as a reciprocal process between the self and others around them (Bartel and Dutton, 2001) in which individuals seek to maintain a narrative consistent with the ‘realities’ they inhabit (Ybema et al, 2009). In essence, this positions identity as a conscious struggle to respond to the question ‘who am I?’ which fuels, or stabilises self-identity which is heavily reliant on those around them. This suggests that self-identity, seen as ‘the self as reflexively understood by the individual in terms of his or her biography’ (Giddens, 1991: 53) has an individualistic dimension but is influenced by factors outside of organisational controls.
Although Alvesson and Wilmott (2002) illustrate how managers concentrate their efforts on achieving organisational control through engineering managerial discourses which aim to secure a sense of self, they also demonstrate that this can never be fully accomplished as individuals derive their identity from other parts of their life experience and from various sources of influence and inspiration. Others highlight the role of external forces that mould and shape the human subject emphasising the role of life experience, narrative identity and integrative capacities which then merge in the construction of a sense of self (Svenningsson and Alvesson, 2003). Furthermore, Parry et al, (2003) show that amid challenging labour market opportunities individuals have sought meaning from communal, leisured, familial or political activities.

The literature surrounding identity work argues that work can and does still provide a sense of identity, which contrasts with the end of work thesis suggesting that work has lost its axis as a place for where identity is built. However, a body of literature exists that focuses on the individual being responsible for their place in work, occurring amid individuals’ changing relationship with organisations and new types of careers that challenge works ability to form identity. The next section will consider the emergence of these types of careers and the impact of this on individuals.

2.4 Towards portfolio and Boundaryless careers

As a result of changing organisational models and their relationships with employees, concepts such as the ‘boundaryless career’ and portfolio careers have emerged in academic discourse. These concepts have been contrasted with Fordist traditional career models and they underline a shift in typical employment relationships. Market forces and societal attitudes have led to a state of transition between employee and employer as the ‘job for life’ and long term career development by employers have now been abandoned and replaced by short term contracts, temporary staffing and outsourced work (Cappelli and Keller, 2013). However, optimism surrounding new career forms can be contrasted with less favourable accounts of the impact of these types of careers on individuals.

Arthur and Rosseau’s (1996: 3) conceptualisation of the ‘boundaryless career’ challenges traditional employment assumptions by suggesting that the organisational career, dominant through the mid-20th century, was a ‘bounded career’ which saw people in orderly employment arrangements achieved through vertical co-ordination in mainly large stable firms. The ‘boundaryless career’ is cited in opposition to the organisational career and is conceived to operate outside the organisational setting. Although it does not characterise one particular form of career it is broadly characterised by the term
‘protean careers’. The boundaryless career is characterised as moving across the boundaries of employers, drawing validation and marketability from outside a present employer, involvement in a career that is sustained by external networks or information, a career regardless of structural constraints and ultimately being independent from, rather than dependent on organisational career arrangements (Arthur and Rosseau, 1996: 6).

In comparison the portfolio career, conceptualised by Handy (1990) offers an explanation of the changing nature of employment relationships. Handy (1990) refers to the development of the shamrock organisation and a three leafed workforce with core, flexible and subcontracted labour, the growth of which Handy deems to have encouraged portfolio working. Handy’s illustration of portfolio careers and the shamrock organisation effectively repeats Atkinson’s (1984) flexible firm model. The flexible firm model, distinctly similar to Handy’s notion of portfolio workers illustrates different employment relationships within the firm and like Handy emphasises how organisations rely on a peripheral workforce outside the core workforce. Ultimately, this core of peripheral workers operate as freelancers, self-employed workers charging for individual pieces of work essentially exchanging full time work for independence carrying out different items of work for different clients (Handy, 1994: 1975).

These descriptions of the boundaryless or portfolio worker have essentially conceptualised a group of workers to highlight a redefinition of how work is carried out by individuals as a response to changes within organisations. This illustrates how structural forces have encouraged a move towards non-traditional employment relationships ultimately conceptualising a trend towards diverse, non-standard and flexible employment contracts (Rubery et al, 2005).

However if one looks at the emergence of these type of careers against the backdrop of structural organisational changes, this may be too simplistic. The changing nature of employment and work has also taken place amongst a backdrop of economic and social changes which have influenced the choices and opportunities for employment (Baldry et al, 2007). The other side of this debate suggests that individuals themselves have also contributed to changes to employment towards non-traditional relationships (Down, 2010). Changing beliefs and attitudes towards work and employment has resulted in individuals adapting to take on different types of careers. Kanter’s (1989: 310) illustration of contemporary working suggests individuals have engaged in ‘job hopping’ as an opportunity for labour market success. Instead of loyalty towards companies, the focus is on personal loyalty rather than organisational loyalty and the ability for individuals to maintain their job security through their
own personal reputation rather than the organisational security. This suggests a changing orientation from individuals rejecting the pattern of full time linear organisational careers to orientations towards the careers of the individual (Scase and Goffee, 1989).

Concepts such as protean careers, boundaryless careers (DeFillippi and Arthur, 1996) and portfolio working (Handy 1990) have been used by scholars to illustrate new opportunities for individuals both in the way they work and in their working relationships with organisations. Such concepts have been associated with flexibility and free worker choice founded upon secure labour markets allowing workers to benefit from a ‘free agent’ mentality as individuals can use their labour power to achieve better conditions (Baldry et al, 2007). In addition to increased choice and flexibility this new orthodoxy of careers has been credited with allowing individuals to gain psychological benefits such as the possibility of self-realisation, freedom and control over their own destiny (Cohen and Mallon, 1999; Elchardus and Smits, 2008). Furthermore, the mobile worker can identify themselves by the skills and positions they have achieved, rather than the organisation they are affiliated to, allowing individuals to improve their position outside the restriction of organisational boundaries (Rosenbaum and Miller, 1996). These factors have all led to an optimistic viewpoint of how we can judge changing contemporary careers centred around the advantages of increased flexibility, more choice, better psychological conditions for work and more individual freedom in the labour market, putting the worker in control of his or her own future rather than being tied to, or dependent on the organisation.

Optimistic interpretations of the new work arrangements should be seen alongside a similarly less favourable view of new career forms which highlight the challenging and difficult implications for individuals in this type of employment relationship. Contrasting the views of Handy, (1990) and DeFillippi and Arthur, (1996) some scholars suggest that portfolio working leads to a loss of attachment with work and the loss of material benefits that employees gain from full time permanent relationships with the organisations such as pensions, salary and employment opportunities (Cohen and Mallon, 1999). Additionally, the flexibility and opportunity celebrated in the literature is more concerned with the adaption of individuals to the precariousness and uncertainty of new career models rather than the quest for self-realisation (Elchardus and Smits, 2008). As further assessment of boundaryless and portfolio careers suggest, coveted notions of flexibility and opportunism have meant that workers must rejuvenate themselves in order to find work. Within the analysis of contemporary careers it is stated that an employee’s free agent ‘marketability’ means that individuals must adjust themselves to the preferences of the market. However, Marchington et al, (2005) highlight that this ‘marketability’ is a reaction to work being increasingly fragmented rather than
individuals being able to enjoy free agent employment. The implications of this on the individual are described by Sennett (1998) who suggests that workers are becoming increasingly anxious about the short term nature of their work and their prospects of future employment.

Changes in work arrangements have also led to the destruction of the psychological contract as the transformation of work has led to an erosion of mutual loyalty between the employee and the firm. Traditional employment arrangements based upon mutual trust and the psychological contract meant that employees offered loyalty, conformity and commitment in return for job security, career prospects and training. However, the new employment relationships mean that employees must often work longer hours, assume additional responsibility and be prepared to be more tolerant of change in return for higher pay and reward for performance (Baruch, 2001). The consequences of these changes to traditional work arrangements on individuals are illustrated by Sennett (1998) who asserts that employment relationships in the ‘new economy’ such as the boundaryless or portfolio careers promote a weakness of virtues such as loyalty and commitment as short termism corrodes the virtues that bind human beings to one another.

This section has illustrated the emergence of a trend away from the standard Fordist model of full time employment and standard work patterns. It is debateable whether the changing structure of organisations or individual motivation for an alternative type of career can be attributed to shaping careers, and this links to wider debates concerning structure versus agency. It is beyond the scope of this review to address this issue but what is clear from the discussion is the emergence of non-traditional careers and labels such as ‘boundaryless’ and ‘portfolio’ careers have proved popular in discussions charting the movement from traditional full time stable careers towards ones conceived outside traditional organisational boundaries. A positive approach to this development points to increased flexibility, independence and autonomy where individuals can use their career to control their own destiny and move outside restrictive organisational boundaries to achieve a greater fulfilment in their work. However, this can be contrasted with precarity, insecurity and anxiety as individuals struggle to adjust to changes in work arrangements. However, the changes to organisations, and the demise of Fordism as a dominant production system does point towards different types of work relationships. The next section of this review will consider criticisms of scholars regarding the pace and nature of these employment changes.
2.5 Has work changed? Criticism of the destandardisation of work thesis

As discussed, traditional key features of work involved a male as the sole breadwinner, who worked full time on an employer’s premises in exchange for pay and benefits (Edgell, 2012). However, this literature review has discussed some key economic and societal changes that have led to new work arrangements. Both Beck (1992) and Castells (2001) support the argument presented in the previous section crediting new patterns of work to increased sub-contracting, outsourcing, downsizing, customisation and the adoption of information and communication technology. The primary suggestion is that these factors have made work more flexible and are transforming work arrangements across skill levels. Critics have raised questions towards the adequacy of metaphors such as boundaryless, portfolio careers and the use of the flexible firm model when describing contemporary careers and have questioned the impact these have had on an individual’s employment relationships. This section will highlight each of these criticisms in turn.

Numerous historical debates focus on full time work as the dominant model of employment and criticise the influence of entrepreneurial spirit and the free agent mentality when discussing changes to work arrangements. Thompson and Warhurst, (1998) suggest that Handy’s conceptualisation of portfolio careers is much more a result of organisational restructuring, outsourcing and downsizing rather than of a new breed of entrepreneurial individuals with a free agent mentality, and that, given the opportunity many would happily return to full time employment. Furthermore, Rodrigues and Guest (2010) question the ability and viability of boundaryless and portfolio careers to reflect reality, claiming that this only provides a partial account of contemporary careers. They suggest that the positive aspects implies that individuals are the main agent in their career direction as progression, job tenure and turnover is relatively stable among those who have stayed in long term employment and traditionally benefited from organisational careers, i.e. managers and professional persons. Additional evidence suggests that individuals perceive self-management central to these career concepts, and complement rather than replace organisational career management (Sturges et al, 2002).

The structural forces that are said to have influenced the emergence of contemporary careers have also been criticised. Pollert (1988) questions the validity of Atkinson’s (1984) flexible firm model as not being representative of the broader spectrum of firms and claims that the model embodies an over-simplified dynamic. She suggests that the employment forms represented in the model have more to do with the variety of employment policies that encouraged differing forms of employment. Pollert highlights the argument that, in addition to the decline of the manufacturing sector and
simultaneous rise of the service sector, the feminisation of the work force and the use of young workers are a much more likely explanation for new employment relationships rather than employers ‘manpower policies’ of large organisations.

Standing (1999) suggests that an increase in non-standard employment relationships is not solely due to the multiple structural shifts in the labour force but it is more a simple case of global transformation. Furthermore, Standing introduces the ‘precariat’, a new class of individuals that experience anger, anomie, anxiety and alienation due to the insecurities of the labour flexibility. While Standing’s argument reinforces the work that connects flexible labour to insecurity and anxiety, his research has generated criticism. Spencer (2012), Conley (2012) and Thompson (2013) criticise Standing for the lack of data and statistics when he illustrates the prominence of this new class and the assumption that Standing generalised the precariat as a global phenomenon without taking into account geographical differences in economies (Thompson, 2013, Spencer, 2012). These critiques suggest that Standing’s broad analysis of the studies into labour flexibility is somewhat unreliable. To support this Thompson (2013) suggests that there is no single trend relating to labour market flexibility demonstrating that studies in the USA and Europe show no consistent relationships.

Others have also dismissed the accounts of scholars such as Beck, Castells and Sennett when analysing contemporary careers. Doogan (2009: 148) suggests that the authors engage in superficial accounts of the fragmented and flexible work and argue that they “generalise from minority experiences represented by temporary, casual and part time staff”. Doogan charges Beck with having “scant regard for current trends and statistical data” and claims that Beck offers visions rather than evidence of changes to the nature of work. He further suggests that Sennett offers a superficial account while discussing the impact of these changes on individuals and that Castells’ conclusion are only tenuously connected to statistics and the arguments that he advances. In a rebuttal of Doogan’s comments, Edgell (2012) highlights how Castells emphasises the typical nature of these statistics whereas Doogan has concentrated primarily on temporal destandardisation neglecting the contractual and spatial work that weakens his claims, leading to Doogan’s analysis being less than comprehensive.

Given the debate surrounding the destandardisation of work thesis it is important to note the criticism of commentators and address them. Pollert’s (1998) criticism of the flexible firm model seems to contradict a considerable body of literature that charts the movement towards post-Fordist methods and employment statistics of non-standard work and which illustrates the prominent use of a non-core workforce. If it could be as simplistic to be put the destandardisation of work thesis down small
spectrum of firms, feminisation and young workers, surely the evidence presented would not be so significant. While it may be tempting to follow Standing’s (1999) suggestion of the movement to standard work being due to a global transformation, the lack of empirical evidence and the multiple factors leading to the growth of non-standard work suggests that the analysis is both simplistic and generalised. As Doogan’s (2009) work tends to primarily focus on temporal work rather than take a holistic analysis of the destandardisation of work thesis, this causes us to question the validity of his account. A review of the literature tends to reinforce Sennett, Beck and Castells comments rather than contradict them, something that could not be said for Doogan’s analysis. Finally, the criticism of the entrepreneurial spirit and the free agent mentality put forward by Thompson and Warhurst (1998) and Rodriguez and Guest (2010) is something that will be addressed in the next section. However, the literature referred to earlier in this chapter suggests that this does represent reality and that there are significant numbers of individuals who are engaged in a non-traditional employment relationship.

2.6 An Entrepreneurial Character

The review of literature in this section has taken place in the context of changing employment relationships between the organisation and the individual. However, the focus of this thesis is self-employment, enterprise and entrepreneurialism. Therefore, the rest of this chapter focuses upon work in the context of self-employment. It will highlight the emergence of an entrepreneurial character, consider what is driving self-employment, and examine how labour market conditions have impacted on entrepreneurialism and enterprise.

A growing body of literature exhibits no clear definition of entrepreneurialism. Common definitions centre on wealth and business creation by individuals (Garcia-Lorenzo et al, 2014), other definitions include ‘an enterprising person’ (Gibb, 1993) or ‘the person who recognises and acts to exploit an opportunity’ (Shane and Venkataramen, 2000). Generally portrayed as positive competencies an individual develops focused around creativity, innovation, imagination, hard work and an internal locus of control (Caird, 1990) the entrepreneur represents a distinctive facet of the developed world. Such rhetoric of an ‘enterprising self’ (Du Gay, 1996) has led to an ethos of enterprise that has consumed parts of entrepreneurial discourse. The heart of the argument focuses on an individual’s capacity to be enterprising whether through risk taking, creativity or self-reliance (Down, 2010: Beck, 1992). This raises interesting questions with regard to the development of enterprising individuals. In the early 1980’s governments turned to enterprise as a political response to social and economic problems of the 1970’s. High oil prices, rising inflation, high interest rates and unemployment resulted in social instability that lead to radical changes in government policy which centred around facilitating
freedom for the individual and encouraging independence (Down, 2010). A key response of Western governments at this time was to organise employment and corporate legislation to encourage enterprise with the philosophy that by doing this it would lead individuals to be more self-dependent and less reliant on the state for their needs as a more entrepreneurial society would emerge (Audretsch et al, 2007).

During the 1980’s most European governments gave substantial support to activities to stimulate entrepreneurship. In Britain, Prime Minister Thatcher’s ‘Enterprise Culture’ was continued by the New Labour government that was fundamentally concerned with stimulating entrepreneurship (Du Gay, 2004). The rationale for building an enterprise culture was that experience and motivation through an individual’s formative years was of major importance while developing entrepreneurial attributes. A government communicating positive components of enterprise culture is viewed by Gibb (1993: 13) as ‘socially engineering’ a view of entrepreneurial development. The major components for the building of an enterprise culture focuses around positive images of successful independent businesses, familiarity with small businesses, an opportunity to practise entrepreneurial attributes reinforced by societal culture and provisions of knowledge and insight into the process of setting up small businesses. The combination of these circumstances on a sufficient scale, and the ideology of governments to reflect the above, underwrite the existence of an enterprise culture and therefore influence the support of the development of small businesses (Gibb, 1993). As a result of such rhetoric and government policy a new form of enterprising self (Du Gay, 1996), a ‘social surge of individualism’ (Beck 1992: 87) and an ethos of enterprise has consumed entrepreneurial discourse. The heart of the argument focuses on an individual’s capacity to be enterprising whether it be through risk-taking (Down, 2010; Beck, 1992), creativity or self-reliance.

In an organisational context capturing entrepreneurial spirit has been represented in academic writing since the 1980’s (Kanter, 1984). Traditionally this management ‘new speak’ both referred to organisational activity borne from orientation towards the customer and lean, flexible structures of the organisation but also individuals showing new enterprising qualities in order to help their organisation become more competitive (Fournier, 1998: 56). Academic references to the organisational type of enterprise was popularised by terms such as intrapreneurship, which is seen as crucial in a successful organisation (Kanter, 1984). This refers to entrepreneurship within organisations and focuses on the individual and their propensity to act in an entrepreneurial way (Down, 2010). This ultimately conceptualised a shift in the role of employees in the workplace as the employee takes on a new character focused around enterprise and in turn the new meaning of career for employees.
Intrapreneurship, made popular by gurus in the 1980’s (Kanter, 1984, Peters and Waterman, 1982), appears to put much of the onus on the organisation and macro-economic factors in encouraging entrepreneurial actions. This type of enterprise was said to have occurred when an employee chooses to embrace entrepreneurial action for the good of the company (Kanter 1984). Seen as a dual role for every employee, it rested under the premise that every individual has the capacity for entrepreneurial behaviour and should alter their role in the organisation accordingly. Intrapreneurship indicated a change of role for the employee encouraged by the organisation and which centred on the self-management of on-going activities and the pursuit of new activities (Birkinshaw 1997: 209). Antoncic and Hisrich (2001) suggest that the concept of intrapreneurship can be characterised by four dimensions with individuals taking on the traits and behaviours to facilitate new business venturing, innovativeness, self-renewal and proactiveness. Kanter (1984) suggests that the entrepreneurial accomplishments within the firm are encouraged by integrative structures emphasising entrepreneurial characteristics such as pride, commitment, teamwork and encouraging workers to ‘do what needs to be done.’ This contrasts with typical managerial responses which drive out entrepreneurial responsibilities (Birkinshaw, 1997). Whereas this form of enterprise is primarily concerned with entrepreneurial actions inside the organisation it clearly demonstrates how individuals were encouraged to take on entrepreneurial characteristics in order to bring about organisational success.

The previous section has discussed how new organisational structures have supported careers outside the traditional career models which have heavily influenced a movement towards self-employment and contracted work and ultimately entrepreneurial characteristics (Sullivan, 1999). The rise of new careers conceptualised by Handy’s (1990) portfolio careers and Arthur and Rosseau (1996) boundaryless careers are closely associated with the independent, enterprising and entrepreneurial careers which are seen as key to economic and corporate success (Fournier, 1998; Cohen and Mallon, 1999). Coupled with government policies which promote individualism and self-reliance, these organisational and political changes appear to have created a surge in enterprise and enterprising characteristics amongst individuals. The next section will examine in more detail what pressures and policies influence individuals to become self-employed.

2.7 What is Driving Self-Employment?

A combination of structural, technological and socio-cultural factors have been drawn on as a means to explain the growth of self-employment. Personal factors such as high levels of work satisfaction, the myth of autonomy and the attractions of self-direction seem to have acted upon individuals to
become self-employed. The combination of economic factors, advances in technology, reduced start-up costs and governments embracing the ideology of enterprise culture appear to have made self-employment an increasingly widespread employment option. However, an alternative explanation can be found in inhospitable labour market conditions which have influenced individuals to become self-employed. This section will look at these factors in more detail to examine key influences which have driven and continue to drive self-employment.

Economic factors have heavily influenced the growth of self-employment. As industry has changed and post-industrial occupations such as business and professional services have become more prevalent, this has encouraged self-employment (Wright, 1997). The deindustrialisation of capital intensive manufacturing and the growth of the labour intensive service economy have also encouraged self-employment (Edgell, 2012). As service based industries generally require a smaller financial outlay the barriers to entry have been lowered and these in turn have encouraged more start-up businesses which have had a significant impact upon self-employment (Marshall et al, 1993; Scase and Goffee 1989).

Technological innovations reducing start-up costs and offering flexibility have also contributed to the increase in the number of self-employed workers (Edgell, 2012, Down, 2010). As technologies have developed it has been made possible for small business to find niches responding to the software and internet needs of customers (Castells, 2001, Marshall et al, 1993). Additionally technological advances such as ICT’s have allowed individuals to decentralise their work both temporally and spatially although not necessarily contractually (Beck, 1992).

The political encouragement of SME’s has also contributed to the rise in the numbers of self-employed. The reduction of bureaucratic red tape, the government policy of tax incentives, the provision of loans and the relaxation of regulation by recent Conservative and Labour governments since the 1980’s have provided considerable support to the SME sector. These factors, in addition to promoting training in workforce development in SME’s, have encouraged individuals towards self-employment (Marshall et al, 1993).

Against the backdrop of these political and technological factors which have encouraged self-employment it can be seen individuals’ beliefs and attitudes have also contributed to a growing number of self-employed workers. Freedom and personal choice appear in some degree to have contributed to positive perceptions of self-employment. The logic of autonomy (Bogenhold and
Stabler, 1991) is a primary motivator for individuals choosing to become self-employed. A primary motivation is the desire to leave a stifling or unsatisfactory working situation. Likened to the opportunistic entrepreneur coined by Smith (1967) this is rationalised by the individual’s motivation for self-direction and the choosing of their destiny in the labour market. Granger et al, (1995) recognises the personal factors which may be involved in the decision to become self-employed as independence, freedom, excitement and flexibility, all of which were cited as reasons for becoming self-employed. Despite these being cited as a significant factor this logic is not one that is open to every individual in the labour market but only those who already possess a series of advantages over others. It is restricted to a class of entrepreneurs that have significant amounts of education or cultural capital to draw on and have previously enjoyed high earnings, job security and opportunities for advancement in their careers.

In contrast to structural, technological and socio-cultural factors that have been used to explain the growth of self-employment changing organisational structures have also contributed to this employment form. Organisational restructuring and the conversion of employee jobs into self-employed jobs in order for firms to become more flexible (Down, 2010) has encouraged self-employment. The growth of the ‘flexible firm’ model (Atkinson, 1984) has influenced two forms of self-employment, subcontracting and self-employed freelance work which, along with other types of non-standard work, are considered risky forms of employment or highly flexible (Edgell, 2012). An additional factor that has led to self-employment are the levels of unemployment over a sustained period. In some cases redundancy payments fund a new business (Curran and Blackburn, 1991) but self-employment and entrepreneurialism can also be a response to economic or labour market insecurities. This is brought about as the individual is driven to self-employment by economic necessity, unemployment or redundancy as self-employment is the only opportunity to participate in the labour market as this employment option is an attractive alternative to low income unstable employment (Bogenhold and Stabler, 1991). These factors illustrate the ‘push versus pull’ dichotomy of self-employment, one class being pulled by the intrinsic benefits of self-employment such as freedom, independence and autonomy and the other being pushed by economic necessity and the insecure labour market conditions. These factors assume that self-employment is a rational, calculated decision however some literature suggests this is not the case and that individuals enter non-standard working arrangements because standard employment is denied to them (McKeown, 2005).
Platman (2004) argues that these changes encourage individuals and employees to negotiate different kinds of relationship. The movement of individuals towards self-employment raises interesting questions regarding agency and structure, particularly with regard to whether it would seem that individuals have been and are moving towards flexible careers both out of choice, and also because of changing market structures that control the choices of individuals.

So far this section has illustrated a variety of reasons for individuals to move into self-employment. Curran and Blackburn, (1991), Bogenhold and Stabler, (1991) and McKeown (2005) have all suggested that self-employment may have been driven by necessity rather than choice or opportunity. This literature connects to a body of work that suggests individuals sometimes have limited choice about moving into self-employment and are ‘forced’ into self-employment using terms such as involuntary self-employment, false self-employment and/or quasi self-employment.

Kautonen et al, (2010) suggests that people are effectively ‘forced’ into taking on sub-contracted work and that their self-employed status therefore becomes involuntary self-employment due to inhospitable environmental conditions and the erosion of conventional organisational structures. Kautonen suggests that this form of self-employment stems from the use of new technologies, outsourcing, and the vertical integration of firms. The key difference identified by Kautonen and one which contrasts with the stance taken by Bogenhold and Stabler (1991) and Granger et al, (1995) is choice. The indication here is that rather than these factors encouraging self-employment it is maintained that these factors effectively left the individual with little choice but to move towards a self-employed status as this was their only option in securing work (Kautonen et al, 2010).

The notion of ‘involuntariness’ in self-employment Kautonen et al (2010) implies that an individual becomes self-employed even if he or she prefers traditional employment as the individual sees this as the best available alternative in the labour market, with the primary motivation towards self-employment being the threat of unemployment. In other words, these individuals would not set up a business if it was not for the threat of being unemployed. Kautonen et al (2010) broadens the term of involuntary self-employment to encompass forms such as quasi self-employment and false self-employment. Quasi self-employment and false self-employment is said to take place when individuals become employed on self-employment contracts with a previous or exclusive client in order that that organisation may then economise on employers non-wage labour costs. In such a situation the individual is given no choice by the employer and in that way they are then permitted to continue their employment relationship with the organisation (Stel, Carree and Hurik, 2010). Burchill et al,
(1999) uses the example of being pushed into self-employment when an employer redefines a task that has been conventionally performed in a normal employment relationship as a self-employed subcontracting arrangement. These forms of involuntary self-employment contrast with Stel, Carree and Hurik’s (2010) classification of ‘real’ self-employed who follow their own preferences, are fully autonomous and enter self-employment via a voluntary arrangement.

Kautonen et al, (2010) understands the involuntary self-employment phenomenon from two perspectives. Firstly it is seen as a ‘push’ motive for self-employment for individuals who would not normally consider self-employment and who are thus driven towards this employment relationship. Secondly, it is seen as being the precarity of the employment relationship as employers define their relationship with individuals and thus bring about a different legal and economic relationship between the individual and the organisation. However, it must be noted the involuntariness of self-employment depends on subjective and contextual factors (Kautonen et al, 2010) and that these are similar to those of voluntary self-employment. Despite the limited academic attention given to this phenomena, practical examples of involuntary entrepreneurship or self-employment provide empirical support for the argument. Harvey (2001) states that employment legislation and tax laws have led to 361,000 individuals being classed as in ‘false self-employment’ suggesting that government policies can influence the decisions of organisations to reclassify the relationship they have with employees and that in consequence leads to involuntary self-employment. Organisational restructuring and changes to technology that follow changes typified by the movement to post-Fordist production methods can also lead towards involuntary self-employment. Boyle (1994) highlights this amongst milkmen in Northern Ireland. Boyle illustrates how vertical deintegration has led to the laying off of full time employees thus forcing individuals to be enfranchised as self-employed businessmen. Vertical deintegration, made economically viable by the rising costs of vertical integration together with changing technologies, has influenced a mushrooming of self-employed milkmen operating milk delivery franchises. The main contribution here was not that it was the psychological or sociological condition that encouraged self-employment but the rationalisation of firms and the exploitation of new business relationships. Despite this limited body of literature on involuntary self-employment it appears that organisational restructuring has influenced employment relationships leading to individuals to become involuntarily self-employed.

This section has highlighted the concept of involuntary self-employment as a reason why individuals have become self-employed. From this we have learnt that self-employment does not only stem from ‘choice’ but also from necessity as individuals can be ‘forced’ into this employment form with little
alternative. Despite Kautonen et al’s (2010) comment that if the individual stays in self-employment then the self-employment cannot be deemed to be involuntary, even if the motivation for turning to self-employment is involuntary, this body of work suggests that the motivations and rationale for self-employment may be indistinct. The next section will aim to further examine the expansion of entrepreneurial actions using a conceptual framework that characterises entrepreneurial individuals as a new form of labour power and investigates the impact that this has had on self-employed workers.

2.8 The entreployee as new labour power

The concept of involuntary self-employment broadly links the new form of labour supply conceptualised by Pongratz and Voß (2003) as the ‘entreployee,’ where an employee is forced to redefine their capacity within the workplace and the wider labour market. Although the ‘entreployee’ primarily refers to the employees within an organisation, Pongratz (2008) broadens out this category to include the self-employed business, a single person business, and the freelancer. Pongratz (2008) has further developed this theory by putting forward the idea of a ‘society of entrepreneurs’, stating that throughout his or her lifetime the worker experiences the need to act as an entrepreneur in some form.

Pongratz and Voß (1998:2003) original conceptualisation characterises the entrepreneurial aspirations of modern employees (Deutschmann, 2010). It has been labelled as the “increased entrepreneurial handling of one’s own work capacities” (Pongratz and Voß 2003: 2) by way of a response to the insecure labour market conditions which in tandem with macro factors rather than entrepreneurialism have been heavily influenced by the organisational dynamics illustrated in intrapreneurship. This new form of labour power is brought about by changing structural factors, as hierarchical structures are replaced by market like relations between firms focusing on the reduction of direct labour control practices and the active promotion of employee responsibility, therefore emphasising the greater necessity for an entrepreneurial manner among employees both in terms of the workplace and the wider labour market (Pongratz and Voß 2003: 2).

In later writings Pongratz (2008) broadens out the ‘entreployee’ to include the self-employed business, a single person business, and the freelancer. This type of worker is characterised by individualised skills, internal control mechanisms and a prioritisation of generic over technical skills with an emphasis on the individual’s own responsibility to produce and market competences in order to increase his or her own employability inside or outside the organisation (Kirpal and Brown, 2007).
According to Pongratz and Voß (2003:3) the ‘entreployee’ may be identified by three features:

- **Self-control** – Intensified independent planning, control and the monitoring of work by the person responsible.
- **Self-commercialisation** – Intensified active and practical ‘production’ and commercialisation of one’s own capacities and potential on the labour market as well as within companies.
- **Self-rationalisation** – Self determined organisation of one’s daily life and long term plans, and the tendency to accept willingly the importance of the company (employer) as an integral part of life.

The following section will describe these features from Pongratz and Voß’s (2003) original work in more detail. Despite limited academic usage of the framework of the entreployee, central aspects of the concept can be found in a variety of literature which illustrates the applicability of this framework to entrepreneurial individuals.

2.8.1 Self-control

“It doesn’t matter how you manage your job and what you do in detail, the main thing is that you achieve at least the goals set” (Pongratz and Voß, 2003: 7)

Here the individual is now in control of their own potential as it transfers into concrete performance. Pongratz and Voß (2003) suggest this was formerly in the hands of the employer but that it is now being seen as a substantial and qualitative part of acquired labour. These features see the individual in charge of actual work performance, the number of working hours an individual performs, where the work is carried out, social ties and how the individual motivates himself or herself to get the job done.

Whilst it may be argued that individuals cannot wait for organisations to offer opportunities and have to take responsibility for their own careers (Arthur and Rosseau, 1996) this may also be the case for self-employed workers or entrepreneurs. Gibb (1993) illustrates that for an entrepreneur to be successful, individuals need to act independently on their own initiative. This involves a number of skills and attributes that an entrepreneur needs to possess. Central to Gill’s work is the need to hold such attributes as versatility and resourcefulness and be ‘achievement orientated’ and dynamic. In addition, Gill highlights the general skills entrepreneurs need such as problem solving, negotiating, and be able to plan, all of which are important elements of the Pongratz and Voß framework of self-control.
Some additional narratives of entrepreneur’s working experiences demonstrate the need for skill development in what is linked to the characterisation of the ‘enterprising self’ (Miller and Rose, 1990) in which the self constantly updates his or her skills and goes through a process of self-evaluation and appraisal, not just in terms of skills but also in terms of life direction (Garcia-Lorenzo et al, 2014). Storey et al, (2005) describe this new type of employee as being responsible for their own success or failure, developing their own skills in a manner appropriate to competitive, free market conditions.

Self-control is not only limited to skills but also to freedom and autonomy. Whilst this chapter has already identified autonomy, freedom and independence from the employer as a primary reason for being self-employed (Bogenhold and Stabler 1991), self-employed workers also have the autonomy to make decisions over rates of pay, deadlines (Fraser and Gold, 2002), work hours and spatial boundaries (Felstead et al, 2005) highlighting the need for self-control amongst entrepreneurial individuals.

### 2.8.2 Self-commercialisation

“You’ll stay only as long as you prove that you’re needed – by making profits!” (Pongratz and Voß, 2003:7)

Here the entreployee regards his or her own capacities as a commodity. In contrast to a typical employee, where the employer employee relationship is focused around the organisation exploiting as much labour from the employee’s labour ‘capital’ as possible, within this function the individual actively exploits their own ‘capital’ to secure a living (Pongratz and Voß, 2003).

According to Pongratz and Voß (2003) there is a focused and continuous effort towards gainful economic usage within the labour market as well as within a company. Ultimately this leads to a higher level of commercialisation of labour power and has two implications. Firstly, the employee must actively and consistently generate capacities and performance therefore creating a deliberate production economy of their work capacity. Secondly, the employee must also market his or her own capacities to ensure that their capacities are both needed and paid for. The result of this is that the formally passive individual is an entrepreneur of his or her own potential.

As has been seen, more individuals are swapping long term employment relationships for new types of short term careers meaning that individuals need to sustain their employability and seek new opportunities. Additionally, the nature of relationships between individuals have moved from
hierarchical environments to networked environments (Castells, 2001) with both factors giving more options to workers with regard to their work location. The impact of this is the emergence of networking and the accrual of social capital, seen to be vitally important when finding work. Antcliff et al, (2007) discusses the difficulty in assessing the value of networking but argue that in recent times value has been conceptualised as social capital. Bourdieu (1986: 51) defines this as “the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition or in other words, to membership of a group”. Reinforcing the value of networking and the ‘weak ties' between individuals, Granovetter (1973) demonstrates the importance of capturing from outside one’s own friendship circle.

This phenomenon is particularly present in the experiences of the self-employed and the enterprising worker. Chell and Baines (2000) correlate a positive relationship between active networking and business success whilst Arthur and Rosseau (1996) highlight the importance of collaborative networking when securing opportunities. Networking is also seen as vital for the on-going success of entrepreneurial ventures as it allows small businesses to access resources that might not normally be available to them, it enhances credibility, and it encourages innovation and expands customer bases (Harris, Rae and Misner, 2012).

Additionally, self-commercialisation is not restricted to networks and the accrual of social capital. Although there is only a limited literature in the area of entrepreneurialism, working for a reduced stipend in return for future rewards can be understood as self-commercialisation. MacDonald (1996) illustrates this point by offering examples of how self-employed workers may work for low wages early in their career in order to secure their position in the market place.

2.8.3 Self-rationalisation

"We need you totally, exclusively, anytime and anywhere, so you’ll have to manage your life perfectly! We want people who are completely under control!” (Pongratz and Voß, 2003: 8)

This aspect involves the understanding that the active production and commodification of capabilities will cause profound changes to the lives of the people concerned. Concerns over work, life balance and job retention and a strictly separate private life can no longer be safeguarded as entreemployees understand that their commitment to work and to commercialising themselves will blur previous work and life boundaries and a systematic reorganisation of life needs to occur to reconcile this (Pongratz and Voß, 2003:7).
Pongratz and Voß (2003) suggest that as self-employed individuals adapt to changing circumstances so does their relationship and so does the ability of work to consume all areas of their working and private lives. In contrast to political and media portrayals of entrepreneurs and narratives of success, self-employed individuals are left with very different perceptions of entrepreneurialism or self-employment. Hyytinen et al, (2013) note that entrepreneurs work longer hours as a consequence of having greater responsibility and control over their work and highlight the long hours that self-employed contractors expend on their work.

The acceptance of the centrality of work in the everyday life of an entrepreneur is discussed by Garcia-Lorenzo et al, (2014) who maintain that the struggle entrepreneurs have to engage in to generate work is seen as a continuous process of reinvention rather than one which can be seen as a sense of goal or achievement. MacDonald (1996: 445) contrasts the rhetoric surrounding enterprise culture by describing work that is wasteful and draining on individual hopes and energies. Furthermore, he suggests that even when firms survive the experience of enterprise it is one of ‘grim self-exploitation’ and survival of self-employment.

This body of literature highlights the centrality of work in the life of self-employed individuals. Positive success stories of enterprise culture should be contrasted with the reality of days composed of long working hours, the constant struggle for work and the weight of responsibility that small business ownership brings. This correlates with the discussion by Pongratz and Voß (2003) of self-rationalisation as work has become central to self-employed workers’ lives. The centrality of work in self-employed workers’ lives appears not necessarily to be out of choice, with terms such as ‘survival’ and self-exploitation used to describe the impact on individuals (MacDonald, 1996).

2.9 Conclusion

This chapter has intended to introduce some broad employment issues surrounding contemporary careers. This review of literature has taken place amid debates that suggest that the changing nature of contemporary careers has resulted in the concerned individuals disconnection with work as risk, increased consumerism and changing organisational structures has resulted in insecurity and fragmented work for many individuals (Beck 1992; Sennett; 1998; Castells, 1996; Bauman, 1998). A central tenet in this debate is how these factors have led to a more individualistic society as people are orientated towards a normative goal of responsibility for themselves (Riach and Leretto, 2009). In the light of these changes individuals have also been more reflective regarding their own subjectivities.
and notions of self as the conditions generated by contemporary capitalism has put pressure on the individuals’ need for freedom, autonomy and creativity (Ezzy, 1997; Knight and Wilmott, 1989).

Despite criticism from some authors questioning the validity and the reasons for changes in employment relationships, the evidence presented here suggests that it is clear that the traditional career model of employment characterised by the Fordist model of production has been replaced to some degree by more ‘flexible’ work arrangements. Academic discourse illustrating the movement towards new employment relationships characterised by portfolio (Handy, 1990) and boundaryless careers (DeFillippi and Arthur, 1996) presents a positive image in terms of flexibility, mobility and autonomy. However, this more optimistic view can be contrasted with the profound impact that this has had on employees as mobility, flexibility and autonomy often associated with protean careers can be exchanged for insecurity, anxiety and uncertainty (Marchington et al, 2005; Sennett, 1998; Elchardus and Smits, 2008).

The emergence of the new ‘flexible’ careers conceptualised by boundaryless and portfolio careers are closely intertwined with entrepreneurial and enterprising occupations. These concepts, combined with government policy promoting individualism and enterprise culture has resulted in an ethos of enterprise that has consumed entrepreneurial discourse. Motivations towards self-employment can be linked back to a variety of social, technological and economic changes including changing organisational structures, the lowering of barriers to entry, the political encouragement of SME’s and personal factors such as autonomy, freedom, excitement and flexibility. However, there is a continuing debate surrounding what influences have caused individuals to become self-employed, and more specifically to what degree insecure labour market conditions ‘force’ individuals towards an employment relationship that would not necessarily be their choice. Kautonen et al’s, (2010) involuntary self-employment suggests that individuals are forced into self-employment amid difficult market conditions when employment opportunities have become unavailable to them.

The trend of involuntary self-employment broadly links with the conceptualisation of ‘the entreployee’ (Pongratz and Voß, 2003) which puts forwards the idea of a ‘society of entrepreneurs’ suggesting at some point that the worker needs to act as an entrepreneur in some form. Under the conceptualisation of the ‘entreployee’ individuals are forced to redefine themselves and impose themselves on the market and at the same time illustrate characteristics of self-control, self-commercialisation and self-rationalisation. The outcome of these features is that individuals must accept an increasingly intensified nature of ‘work’ which in turn leads to challenging work conditions.
for individuals. This suggests that the attractions of flexibility, freedom and autonomy are somewhat unachievable in these types of contemporary careers.
3.0 The Creative Industries, Software and Digital games

3.1 Introduction
The previous chapter focused on the broader topics of changing employment relationships and enterprise. The focus of this study is the creative industries, more specifically the digital games. Whilst the introduction dealt with the contentious categorisation of the creative industries and the legitimacy of software and digital games place with within it, section 3.2 further supports this by illustrating the commonalities surrounding the nature of production in the creative industries. Additionally, it argues that the nature of production in the creative industries results in tensions focusing on the erosion of autonomy and creativity. Given that the digital games sector lies at the intersection between creative industries and software development so is both technical and creative, Section 3.3 draws on established literature on the labour process in the software sector revealing a combination of technical and normative forms of control and considers its relevance to the digital games sector. Given the prominence of changing employment relationships in the new economy highlighted in chapter 2, section 3.4 considers this in its application to the creative industries and the software and digital games sector. It argues that the changing technological, structural and economic conditions that have influenced employment relationships in the creative industries also occur in digital games. However, it suggests that current literature in this area is underdeveloped and highlights the necessity to learn more about enterprise and entrepreneurialism with a specific focus on digital games development.

Section 3.5 introduces the concept of ‘cultural entrepreneurialism’ and draws on the political and media encouragement of enterprise in the creative sector. It argues that the concept of the cultural entrepreneur broadly relates to the new form of labour supply illustrated in the previous chapter as employees are forced to define their capacity in the workplace as a reaction to changing macro factors and economic conditions. Section 3.6 draws on the conceptualisation of ‘the entreployee’ (Pongratz and Voß, 2003) to critically assess the impact of entrepreneurial activity has on individuals in the creative industries and software work and examine its application to software and digital games.

3.2 Production in the creative industries
Despite the contentious categorisation of the creative industries this section will investigate commonalities surrounding the production of creative products. Several authors have identified distinguishing characteristics or properties of the creative industries that offer different organisational challenges from other forms of capitalist production. Therefore this section will reveal common
characteristics, problems and challenges within the creative sector and then analyse their relevance to digital games. It will illustrate why the creative industries are useful to look at collectively as a unit of analysis reemphasising software and digital games legitimate place at the heart of the creative sector. It will also highlight how organisational strategies to limit risk lead to prevalent tensions within the creative workforce.

One element that is consistent across the creative sector is the unreliable demand for creative products. Caves (2000) suggests that in the creative industries demand is uncertain as there is no guarantee regarding how a newly produced creative product will be valued. Caves argues this ‘nobody knows’ property creates organisational problems due to the high risk involved with creative products. Despite Oakley (2004) acknowledging that different industries within the sector are exposed to different degrees of risk, Hesmondhalgh (2012) identifies risk and uncertainty in creative products as one of the key characteristics that brings the cultural industries together in agreement with Caves. Hesmondhalgh identifies the creative industries as a particularly risky business as audiences use cultural products in volatile and unpredictable ways. As a result fashionable cultural products can become out-dated or unpopular as other products can be unexpectedly successful. Uncertainty and risk that characterises the creative sector is verified by others who point to the ambiguous nature of production as profit is hard to forecast before production are incurred (Townley et al, 2009). This leads to firms using a variety of mechanisms in order to reduce uncertainty and manage risk which this section will outline.

Given that the success of creative products are difficult to predict, creative producers focus on strategies to deal with uncertainty. One example is that that companies grant creative producers limited autonomy in the hope that they will create a hit. The implication of this is that cultural companies are engaged in a constant process of struggle to control creative workers (Hesmondhalgh 2012). However, the impression that creative work is free and autonomous would only give a partial view of creative production as creativity and autonomy is only given within the constraints of a commercialised system.

The result of managing creative workers means that there are varying degrees of autonomy. Often reconciling the demands of creativity with commercial production is dependent on how close the product is to going to market (Townley et al, 2009). Hesmondhalgh (2012) cites the large amount of creativity involved in the creation and conception area of cultural production suggesting the creative organisation manages creative and commercial tensions by having loose control of symbol creators
while maintaining tight control of distribution and marketing. However, more detailed assessment of work in the creative industries suggests that creative work is often carried out in a highly restricted and controlled environment calling into question the image of free, autonomous creative work (McRobbie, 2002; Banks, 2007; Hesmondhalgh and Baker, 2010; Townley et al, 2009). Further evidence highlighting tensions surrounding autonomy comes from scholars who highlight how the creative sector is driven by an aggressive market philosophy where cultural productivity is determined by logic of economic calculation (McGuigan, 2004). Decline in autonomous cultural production is then brought about as products are developed through an ideology driven by the ‘the market’ and consumer demand (McRobbie, 2002).

Another mechanism of production to manage risk is using successful products to cover the costs of less successful products through the use of a portfolio or repertoire. ‘Hits’ are very profitable and often compensate for products which are unsuccessful which offsets risk for creative firms (Hesmondhalgh, 2012). Creative firms therefore implement strategies that ensure more ‘hits’ than misses. However, the nature of consumer behaviour in creative products represents a challenge for creative firms. Consumers are on one hand driven by a search for novelty but on the other an expectation that novelty should be accessible and familiar (Lampel et al, 2000). Creative firms respond to this by producing increasingly formulaic market tested products (Oakley, 2004) so that products continue to meet consumer demand. Examples such as using back catalogues of popular artists (Townley et al, 2009), creating ‘stars’ or continuing the use of popular genres by creating sequels, prequels or serials (Hesmondhalgh, 2012) are used to give some sort of certainty in the market. However, the impact of this on creative workers presents more tensions surrounding autonomy. Oakley (2004) describes the creative sector spanning varying degrees of individual creativity and formulaic production. Banks (2010), on the other hand, despite accepting the diverse institutional settings and different positions in creative industries and therefore the difficulties of generalising throughout, argues the creative worker becomes bound by the dictates of employees and contract to tailor their creativity to pre-given schemes and formats resulting in an increasing lack of autonomy. An additional consequence of these strategies is that dominant conglomerates that own product rights to popular serials, genres and back catalogues increase their strength leaving small organisations and newcomers to the market to essentially carry out ‘research and development’ on behalf of large conglomerates thus making it increasingly difficult for them to sustain their position or enter the market (Townley et al, 2009). It seems that the requirement for creative firms to ensure a return on investment results in tensions surrounding autonomy and challenges for small firms establishing themselves in the market.
Increasingly creative firms have sought to maintain greater control over the value chain in order to gain increased command over the process of creation and delivery of creative products and limit risk. By integrating horizontally, either through mergers, acquisitions or strategic alliances, creative companies can reduce competition for audiences, gain control over companies involved in different stages of the production and circulation, gain closer links with international partners to sell the product in different markets and to ensure cross promotion (Hesmondhalgh, 2012). However, the consequence for the creative workforce is the push for greater co-ordination between value chain relationships results in a further decline in the autonomy (Lampel et al, 2000).

Another characteristic that influences production in the creative industries is the workforce that contributes to bringing a creative product to market. However, the nature of production and its relationship with labour presents challenges for creative workers. The ‘motley crew’ (Townley et al, 2009) property suggests that in order for the creative product to be produced a number of diverse skills and different artists are required and cooperation and coordination between multiple specialisations is needed (Caves, 2000). Townley et al, (2009) expands on the nature of the creative workforce highlighting the vast array of personnel from creative artists, brokers working on their behalf to technical craft workers and owners executives and media outlets highlighting the difficulty of conceptualising the ‘creative worker’ due to the diverse skills and specialisms involved. However, the ‘motley crew’ property does highlight the significance of project work that typifies work in the creative sector as freelancers and other alliances are used in order to complete creative projects as a range of specialisms are needed (Warhurst and Thompson, 2006). The use of a range of workers with multiple skills has led to a bifurcated ranking between ‘A list’ creative workers and ‘B list’ peripheral workers who rely on multiple job holdings and work outside of the creative sector to obtain their livelihoods (Christopherson, 2009; Townley et al, 2009) as firms emphasis differences in divisions of labour in order to manage labour costs associated with production (Eikhof and Warhurst, 2013). While the movement towards project work in the context of a changing labour market are discussed in section 3.4 it is important to point out that the use of project work emphasises organisations’ management of employment rather than labour relations (Townley et al, 2009) and has implications for the ability of new entrants to build a career due to the bifurcated nature of the sector (Christopherson, 2009).

It appears that strategies to deal with risk and uncertainty in creative product results in tensions surrounding loss of autonomy for creative workers’. This is in clear contrast to perceptions of employment in the creative industries which have been characterised as flexible, liberating and cool
(Reeves, 2001), creative, artistically autonomous, self-expressive or more fulfilling than conventional work (Florida, 2002). Caves (2000) points to this when presenting the emotive nature of creative work and ‘art for art’s sake’ property in which he suggests that the amount of creative effort is unrelated to prospective economic outcome. He highlights this property leads to tensions in reconciling creative imperatives of the individual with the commercial priorities of the firm. This is emphasised by Lampel et al, (2000) who highlight an uneasy relationship between profit maximisation and creative forces, presented as conflicting imperatives between creative workers and commercial partners. They identify conflict managing artistic versus mass entertainment, the challenge of balancing artistic values with the value of entertainment, reconciling profit and efficiency with artistic exploration and freedom provide creative firms with significant organisational challenges (Lampel et al, 2000, DeFillippi et al, 2007). This is verified by others who argue that the creative industries operate within a “conflict-laden context” as managers face dilemmas around paradoxical imperatives of creative workers and managers within the sector (Reid and Karambayya 2009:1075) brought about by artists and administrators and the wish to promote alternative aspects of the organisation (Glynn, 2002). This body of literature suggests that conflict between creative workers and commercial organisations is a consequence of firms implementing strategies to manage risk and uncertainty in the creative sector.

Given this assessment of creative work we can see that there are commonalities that lead to the creative industries being characterised as one common group. However, much of the evidence presented is given within the context of the traditional cultural industries. For example Hesmondhalgh (2012) and Caves (2000) analysis tends to focus on film, music, television and the arts with software and digital games being generally omitted from their description of creative production. However, the evidence presented suggests the characteristics of production in these industries can be applied to the software and digital games sector. Tschang (2007) argues that digital games draws a parallel with other creative industries that require creative thinking and the need to marry creativity with customer expectations. Also, managing tensions and reconciling creative, technical and commercial imperatives in a manner which routinely innovates without losing mass appeal is highlighted as a challenge for the digital games industry (Lampel et al, 2000; Tschang, 2007; Thompson et al, 2015). Risk and uncertainty surrounding creative products are apparent in the digital games as in other cultural industries as is dominant market positions of a few large conglomerates (Martin and Deuze, 2009) and integration amongst the value chain members (Cadin et al, 2006; Phillips et al, 2009). Furthermore, the diverse skills and specialised workers needed in the manufacture of products in the creative industries are apparent in the digital games sector, as is the use of project management to manage large teams with a diversity of skills (Peuter and Dyer-Witherford, 2005; Townley et al, 2009). This suggests that
workers in the digital games may experience similar tensions to their counterparts in the other areas of the cultural industries.

The characteristics presented in this section illustrate the nature of production in the creative sector. Despite criticisms in the introduction asking whether the inclusion of IT, software and computer services sector represented a ‘common group’ (Banks, 2010) the set of challenges or tensions surrounding production and management in the creative industries appear to be prevalent in the digital games sector. However this vital part of the creative industries is comparatively under-researched given its symbolical and economic significance. Given this, the next section will examine what we already know about the labour process in the creative industries, software work and digital games to enhance our understanding of work in this sector.

3.3 The labour process in software and digital games

Software work has been popularly described as ‘a sunrise occupation’ (Kraft and Dubnoff, 1986) with those who hold IT jobs being portrayed as the ‘new worker elite’ (Richman, 1994) who were projected to enjoy secure jobs, high salaries and excellent career prospects (Warhurst et al, 2006). Despite it being heterogeneous in terms of academic analysis, software shares many characteristics with the creative industries but also differs in some ways. This section will discuss the nature of software work, and the strategies that have been practised that influence the autonomy of software workers. It will then look at what we know about this sector to help enhance our understanding of the digital games sector.

Hesmondhalgh and Banks (2010: 416) suggest that creative work typically is craft based work characterised by broadly creative or artistic work. However, in the software sector there is a debate with regard to the extent this is applicable. Historical accounts of software work differ with regard to whether it is craft or knowledge based. Software developers are typically referred to as knowledge workers (Scarborough 1999; Reich 1991). Typically the knowledge worker is someone who is doing non-repetitive, non-routine tasks which require high levels of thinking and specialised skills and is described as being creative, autonomous and involving considerable discretion (Andrews et al, 2005). However, Marks and Scholarios (2008) argue software workers might in some cases fall into the category of craft work supporting others, which suggest software work remains largely a craft activity which is relatively under-industrialised despite the high tech image surrounding it (Quintas, 1994). The assertion that software work is either craft work or knowledge work highlights the duality of work surrounding this debate. In fact it may be possible that as in the creative industries, software may be both which highlights concerns that the description of types of employment as knowledge work or
craft work is problematic analytically and empirically (Warhurst and Thompson, 1998). Despite referring to software work as craft work, in some cases Marks and Scholarios (2008) suggest that software work has been rationalised and Taylorised leading to a lack of creativity, autonomy and discretion particularly in the lower status activities, an accusation which we will now explore.

In order to understand the nature of software work we need to examine exactly what software developers do. In a seminal paper Kraft and Dubnoff (1986:184) suggest computer software specialists “design, write and modify the instructions which make computers work” and describe the “programmer” as a highly skilled worker. However, the debate surrounding the routinisation and rationalisation of software work questions how relevant this definition is today. Typically historical debates of software work illustrate it as free unstructured autonomous work, much like work in the creative sector (Reeves, 2001). However more recent work demonstrates the routinisation, rationalisation and fragmentation of software that bears more similarities with Taylorised or Fordist methods as organisations seek to gain more control over production (Marks and Scholarios, 2008; Barrett, 2005).

Traditionally the software worker was seen to possess a variety of skills and traits such as mathematical logic, accuracy, creativity and practicality (Ershov, 1972). However, more recently this has been identified as a rather simplistic view of software work. The problem with Ershov’s statement is that it does not represent a majority of contemporary software work as it does not allow for the ways that labour is now organised such as the differences between elite developers and more basic coding and testing jobs, rationalisation and the management control used in the software sector (Beirne et al, 1998). This suggests that like creative work, software work is exposed to divisions of labour due to the diversity of skills, multiple specialisms needed and the requirement of management for control.

Friedman and Cornford (1989) highlight the state of software development in the 1960’s where software development was considered creative and esoteric and where individualist staff were given high degrees of autonomy. However, since then software and computer work has been steadily fragmented, intensified and rationalised even to the degree that it has been associated with Fordist production or scientific management making software work akin to the production of cars and cornflakes (Kraft and Dubnoff 1986; Warhurst, et al, 2006). To support this Kraft and Dubnoff (1986:194) state if programming had been the “preserve of artisans who responded to their own visions” changes to the nature of programming and management intervention “transformed
computer programming into another branch of engineering, complete with management defined production standards”. This quote and the evidence presented so far highlight the degradation of software knowledge work where autonomy and creativity associated with the early days of software work has been replaced with the regimented task structures and deskilling of Taylorised labour (Beirne et al, 1998; Ackroyd et al, 2000).

To explain this further it might be useful to look into the historical development of the ‘programmer’ to illustrate how software work has become deskillled and fragmented. Kraft (1979:142) explains the artistic nature of software work arguing “programmer artists” saw the carrying out of programmes as the whole task, starting with the desired outcome and covering all approaches of it to meet that requirement, therefore one “programmer” would take on all tasks, for example, including debugging, maintenance and programme design. Kraft maintains “the programmer” at that time was “an all-inclusive category applied to those responsible for the entire range of activities required to instruct a computer”, this suggests a lack of divisions of labour and implies that at this time programmers had relatively highly skilled but also varied tasks and roles whilst at work. However, changes were made to software work as the problem of human inefficiency meant that machines could not reach their full potential. Management strategies were created which ultimately lead to subdivisions of labour, fragmentation and routinisation of software work (Kraft, 1979). This included the separation of creative jobs carried out by high level staff and non-creative jobs such as coding and testing carried out by lower level programmers (Greenbaum, 1976; Kraft and Dubnoff, 1986).

Further routinisation of software work included high level languages, canned programmes and structured programming. The introduction of high level languages meant that it was no longer necessary for software workers to know the machine as languages which could be used by anyone who mastered its alphabet or grammatical structure and ultimately lead to increased standardisation and the employment of lower skilled specialists (Kraft, 1979). Canned programmes or “prepacked application programmes” which were similar in basic features enabled machines to be easier to use and meant that software workers with less skill could program making it possible to operate computers cheaply and allowing employees to be trained easily (Kraft, 1979:54). Also, structured programming allowed the firm to be less reliant on programmers who created complicated or distinct programmes and achieved managerial goals of freeing managers from being overly reliant on individual members of staff and making it possible for task based fragmentation. This represented Taylorised or Fordist methods of production albeit without the conveyor belt and led to programming moving away from a craft activity towards an increasingly industrial process to such an extent that
people would do the same tasks over and over again without having the knowledge of how they fit into the final product itself (Kraft, 1979). Such indications of deskillling and fragmentation work suggests that we can associate software work with visions of rationalisation and Taylorism and software work is rationalised into routine work much the same as manual labour (Perolle 1984; Beirne et al, 1998).

Criticisms of the claims that software work has been heavily routinised and fragmented come from Orlikowski (1988) who suggests some of the routinisation was necessary. Orlikowski maintains the techniques of routinisation were due to the growth of technology in the software industry, rather than the deliberate strategy of management to deskill software work. Orlikowski also criticises Kraft for his political bias and lack of understanding of dynamics of the software industry. In addition, some work challenges the differentiation between conception or execution workers as work is based on team efforts and questions descriptions of absolute management control due to the expertise and knowledge of the software worker (Iavarasan and Sharma, 2002).

By following this literature, despite some criticisms we can see a loss of autonomy and increase in managerial control is present through the routinisation, fragmentation and deskillling of software whether through technological or social milestones. Although it would be unconvincing to suggest that all software work is low skilled, fragmented and routinised work, one might argue that software work is increasingly polarised between high and low skilled work (Marks and Scholarios, 2008). The relevance of these changes meant the routinisation of work, fragmentation of tasks and divisions of labour made the software development process assist economic production through allowing different pay rates and perhaps more amenable to project management and control aligning software work with Taylorised and Fordist methods of production (Friedman and Cornford, 1989). Traditional strategies by software firms have allowed more economical production and permitted software work to be more easily subjected to objective control mechanisms (Beirne et al, 1998) resulting in the fragmentation and routinisation of software development. However, an emerging body of literature finds more complex normative forms of control in software work.

A more recent body of literature is emerging that discusses different normative forms of control in software development. Normative changes in the IT workplace have resulted in an upskilling of work, decentralisation of control and more flexible forms of work (Tapia, 2004). Kennedy’s (2010) study of web designers finds that “collective self-regulation” allows open sharing collective practices such as
peer and self-driven control whereas modern team working principles such as Agile have been seen to deliver better results through flexible, but tight, self-organising teams (Hodgson and Briand, 2013).

Forms of normative control can be found in detailed examination of Tapia’s (2004) work. The creation of a 24 hour workday during the dot.com bubble highlights how culture can be used to motivate and manipulate employees to work long hours, be continuously on call, intensify their work pace, and police themselves. Central to this encouragement is how firms have made working long hours glamorous and ‘cool’ by telling success stories of individuals within the sector. Furthermore, Tapia (2004) highlights several techniques managers used to increase time commitment from their employees including employing workers with little or no responsibility outside of work, encouraging a dissolution of the boundaries between home and work life, the creation of a culture of crisis that rewarded heroic behaviour (i.e. working longer hours) and a creation of self-policing by co-programming teams which developed systems of control over each other. Bearing striking parallels with the creative sector, myths and stories contributed to a culture that was iconic of working in the IT and dot.com bubble.

Further illustrations of management attempts to gain normative control are highlighted by management techniques which aim to model the behaviour of employees by encouraging software workers to adapt to the norms and values of the organisation (Perlow, 1998; Kunda, 1992). Kunda’s (1992) illustration of culture management in a high tech organisation exemplifies this by showing the attention paid to developing, articulating and disseminating the organisation’s ideology de-emphasising the traditional control structures as attempts to bind the hearts and minds of workers together puts more emphasis on normative control in the IT sector.

These forms of control raise interesting questions with regard to whether the individuals concerned perceive normative strategies as a direct form of control over their work lives. Barrett’s (2005) study of software workers illustrate similar normative methods of control as Tapia (2004) and Kunda (1992) which are implemented alongside more structured bureaucratic methods of control. The encouragement of ‘flexible hours’ (meaning long hours), emphasising opportunities at work in return for commitment and encouraging a relaxed atmosphere at work such as through informal dress codes and social activities during downtime all appear to give workers a degree of freedom that conforms in some respects to the notion of responsible autonomy (Friedman, 1977). However, in Barrett’s view these developers do not see that they are involved in being subjected to control strategies as they are delicately masked.
The presence of normative controls in software work highlights a bounded work culture to manage subjectivities and indicate to others what represents ‘good and bad work’. This suggests organisational strategies encourage a sort of collective control or self-regulation within individuals in the software sector. However, outside of conventional organisational boundaries there is a small body of literature that draws on the occupational communities when influencing the values and behaviours of individuals. In their study of knowledge workers Svenningson and Alvesson (2003) use hi-tech firms and computer services companies to emphasise the manufacture of subjectivities through external discourses in their environments. More specifically, Graber and Ibert (2006) draw on the ability of occupational communities and ‘communities of practice’ (Lave and Wenger, 1991) outside the firm to influence the attitudes and behaviours of software workers which emphasises the role that communities of practice play in identity formation.

The evidence presented here suggest varying ways of gaining control and managing subjectivities of individuals in the software industry contrasting technical and normative forms of control. This indicates it might be simplistic to look to historical debates of control in the labour process highlighted by Kraft and Dubnoff, Greenbaum and Friedman and Cornford as the only form of control over the labour process as normative control mechanisms are prevalent alongside bureaucratic structured forms of control. The next part of this section will consider this in the context of the digital games sector to consider the relevance of these strategies.

The labour process of digital games contains similar control mechanisms emphasised in the development of software work. The nature of control appears to be two tiered much like that of the other areas of software work. Cohendet and Simon (2007) note that in order to manage the demands of creativity and mass production some creative control is given to specialist developers although this is mediated by a strict managerial attitude exerting tight/loose control in order to manage creativity within time and cost constraints. This suggests that work in the digital games sector is a balance of autonomy and careful management control.

However, there is some debate regarding the suggestion that the divisions of labour and standardised production processes illustrated in software work are apparent in that of digital games. In console production divisions of labour appear to reflect that of software as ‘creative’ jobs at conception level such as scriptwriters, programmers, designers can be contrasted with ‘non creative jobs at execution level such as coders and testers (Zackariasson et al, 2006; Cohendet and Simon, 2007). Also, in an observable trend towards standardisation and specialisation, (Thompson et al, 2015) mirrors accounts
that point to an emergent hierarchy of skills and suggest a narrow definition of roles within games production (Izushi and Aoyama 2006; Deuze et al, 2007). Stronger arguments towards theme of standardisation have suggested the games industry is in a state of fusion between Fordist and post-Fordist production methods as some elements of production mirrors standardised processes of the assembly line (Schumacher, 2006). However, the standardisation of tools in the software sector can be interpreted to be considerably more developed from that of the digital games sector although the structure of the digital games sector is still fluid (Cadin et al, 2006; Plato, 2010). Thompson et al, (2015:13) highlights ‘changes in the division of labour are to the relative degree of discretion necessary to produce complex cultural products’ and therefore rejects the assertion that work in digital games reflects a standardised process of the assembly line. From this debate we can understand that games production is under some degree of technical control but this is by no means as developed as in other areas of software work. The debate now will move on to normative control to assess the comparison between software and digital games.

In order to do this we need to go back to the implications of methods of production in the digital games sector. Contrasting Cadin et al, (2006) who argues that digital games production in console development is characterised by permanent contracts and strong internal labour markets a larger body of literature suggests that production in digital games operates under project based conditions. This results in a cyclical nature of production as individuals are often employed for finite projects with varying employment relationships (Peuter and Dyer-Witherford, 2005; Phillips et al, 2009 Hodgson and Briand, 2013). This has led to characterisation of digital games as precarious and insecure as freelance and contract work become the norm (Peuter and Dyer-Witherford, 2005).

It appears that acceptance of these methods of production are supported and enabled from high levels of attachment and identification to work (DeFillipi et al, 2007; Thompson et al, 2015) in this sector. Digital games developers enjoy their work and to some extent see it as ‘a calling’ (Peuter and Dyer- Witherford, 2006; Peticca-Harris et al, 2015). A ‘work as play model’ appears to mitigate challenging work conditions such as unregulated long working hours (Peuter and Dyer-Witherford, 2005). This view concurs with Barrett’s (2005) depiction of software work as individuals are subjected to control strategies such as ‘crunch time’ (a practice widely used in the industry where employees work long hours to close a project) to appear ‘cool’ and a way of capturing creativity and collective operation. The acceptance of extreme working conditions such as ‘crunch’ to some degree accounted for due to angst about employability and future career prospects (Peticca-Harris et al, 2015). However there is some evidence that they are also accepted due to the attachment developers feel about their work.
Collective understandings of work which may be developed socially, outside of the workplace act as a control mechanism and influence the effort bargain (Grabher and Ibert, 2006; Thompson et al, 2015). By examining this body of literature it seems that control in digital games is heavily reliant on the identity of developers which is as least partially controlled by collective feelings developers have about their work. This results in a lack of resistance to practices such as ‘crunch’. This suggests that the digital games sector does, at least to some degree, share some similarities with software work when understanding the manufacture of subjectivities.

In summary, this section has revealed well established control mechanisms in software work revolving around the fragmentation, routinisation and standardisation of work tasks. However, a more recent body of literature has revealed that software work has been increasingly under the command of more normative forms of control (Kunda, 1992; Perlow; 1998; Tapia, 2004; Kennedy, 2010). Control in digital games is comparatively under researched but from current literature it is fair to say that there is some level of technical control (Zackariasson et al, 2006; Cohendet and Simon, 2007; Thompson et al, 2015). However, attachment and identification to work which is taken from collective feelings that developers have about their work (Thompson et al, 2015) appears to be the basis of control in the sector. Nevertheless, this section has found that normative control requires socialisation over time, often from within an organisation. In the context of fragmented work this is difficult to establish.

### 3.4 Creative Industries and Labour Markets

So far this chapter has highlighted how work in the creative industries has been characterised by strategies to manage production that result in a loss of autonomy. Furthermore, it has charted how control strategies in software work and digital games carefully manage work processes, polarise the workforce and routinise work. However, differing methods of production in the sector have influenced work arrangements redefining the relationship individuals have with work, meaning that conventional forms of employment do not fully characterise the experiences of the creative workforce. Work in the creative industries has mirrored changing technological, structural and economic conditions in the economy by moving towards freelance, outsourced labour and assembling teams project by project (Murdoch, 2003; Randle and Culkin, 2009). Changes to the television, film and media industries are symptomatic of broader structural changes to the new economy and can also be seen in the software sector. This next section will highlight these changes in the creative industries, apply them to software work and digital games, then consider the impact of this on individuals in the sector.
The television industry and film are good exemplars of the structural changes than have occurred in areas of the creative sector that also represent the movement towards freelance work and enterprise highlighted in the first chapter. Television and film, previously associated with strong internal labour markets and facilitated skills development for employees was replaced, to a large extent, with outsourced and freelance work (Hesmondhalgh, 2009). The British television and film industry was traditionally dominated by major broadcasters which catered for every aspect of production from idea formulation to delivery of the programme or product. However, changes to production resulted in the fragmentation of work and new work arrangements (Grugulis and Stoyanova, 2010). Ursell (2000) relates fragmentation of the strategies of the major broadcasters (ITV and the BBC) in the 1980’s and 90’s, who shed a large amount of their core workforce replacing them with freelance staff. The film industry is also comparable to television as freelance work and self-employment is more prevalent in this sector due to an increase in project based work (Blair et al, 2003). Historically film production was coordinated by companies that directly oversaw financing, development, production and distribution which meant large numbers of employees were needed to assemble a film resulting in some form of stability to its employees (Blair et al, 2003). However, changes in production meant that resources were brought together for a single production then disbanded emphasising a project by project nature of the sector (Blair, 2001). The implications of this to employment is that the film industry, just like television, has been transformed from what was once stable employment to one of project based freelance employment (Grugulis and Stoyanova, 2010).

The software sector has also gone through structural changes as in other areas of the creative industries such as television and film that have resulted in changing work arrangements. Themes such as outsourced work, diverse employment contracts and project work that characterise the creative industries appear to be prominent in the software sector (Baldry et al, 2007; Barley and Kunda, 2004). Greenbaum (1998) highlights how recession in the 1990’s masked the compression of full time job titles and lead to a surge in the contingent ‘off the payroll workforce’ correlating with changes in the work arrangements highlighted in chapter 2. The software sector is also reflective of broader changes to the economy that have changed work arrangements and casualised the workforce. The influence of ICT’s have resulted in people working from home and telecommuting, often as freelancers, resulting in more self-employed workers (Stanworth and Stanworth, 1991). These factors illustrate the changing work arrangements in the software sector that are comparable with the structural changes that typify post-Fordist production which have been influenced by organisational objective of reducing organisational hierarchies, reorganising work processes and introducing new work technologies under the banner of fighting global competition.
The general consensus to why firms have turned to contingent labour in response to competitive environments can be summarised by shifting competencies, fluctuating demand and rising labour costs. This has resulted in software organisations searching for new forms numerical and functional flexibility (Barley and Kunda, 2004). This chapter has already discussed additional explanations for this, which can be traced back to the issue of control over production as the routinisation of software development allowing software to become increasingly fragmented as larger systems were broken up into more discrete components following consistent trends with other areas of capitalist production (Barrett, 2001). Technological innovations such as high level programming languages, new tools and techniques such as structured programming have reinforced divisions of labour (Quintas, 1994) resulting in a diffusion of production processes and organisational relationships (Barrett, 2001) leading to changing labour relationships.

A growing body of literature highlights the impact these changes have had on work in the software sector. In recent literature software work has increasingly been associated with boundaryless and portfolio careers which contrast with the linear path of the traditional Fordist career model of full-time continuous employment. Saxenian (1994) notes how inter-firm mobility in Silicon Valley is omnipresent and that open labour markets and corresponding career paths blur the boundaries between firms and institutions and the software worker as a consequence of volatile economic conditions. Furthermore, Barley and Kunda’s (2004) insight into software workers in Silicon Valley illustrates how permanent employees have been replaced by temporary and independent workers as software companies search for increased flexibility. Although the evidence presented so far comes from one geographical area of software work (Silicon Valley) a small body of work emphasises the project nature of software work resulting in temporary work, fixed term contracts and transient organisational arrangements (Barley and Kunda, 2004; Hyman et al, 2005; Grabher and Ibert, 2006; Kennedy, 2010). This suggests that this is perhaps more than just a trend in one geographical area and possibly representative of new types of career in this sector.

Evidence is also apparent of a change in temporal conditions of software workers. The stability of full time work has also been eroded as organisational structures influenced by the search for flexibility allow for variation of forms of employment from full time to part time work (Lash and Wittel, 2002). Non-traditional work arrangements are being increasingly seen as the norm with many software workers taking on the free agent mentality that characterises boundaryless and portfolio careers by moving from employer to employer (Baldry et al, 2007) or as freelancers moving from contract to contract as self-employed enterprising subjects with differing temporal and spatial work
arrangements (Bergvall-Kåreborn and Howcroft, 2013). This albeit limited area of literature concerning the software sector highlights how differing methods of production have led to structural forces influencing work arrangements redefining the relationship individuals have with work.

So far this section has highlighted how fundamental shifts in the production of products in the I.T and creative industries have resulted in new forms of employment relationships for creative workers characterised by non-standard work arrangements such as project based work, temporary contracts, and freelancing (Barley and Kunda, 2004; Hyman et al, 2005; Grabher and Ibert, 2006; Blair, 2009; Grugulis and Stoyanova, 2010; Bergvall-Kåreborn and Howcroft, 2013). This links to literature in the creative industries that highlight how cultural workers were effectively pushed into self-employment in the 1980’s in search of self-exploration and self-fulfilment due to the economic recession and industrial downsizing (Leadbeater and Oakley, 1999). These competitive and regulatory changes in areas of the cultural industries have led to unstable market conditions and labour market conditions that characterise the creative industries (Haunschild and Eikhof, 2009). Warhurst et al, (2006) suggest that, despite initial expectations of a ‘sunrise occupation’ (Kraft and Dubnoff, 1986) and the creation of a ‘new worker elite’ (Richman, 1984) individuals in the software industry have found jobs restricted due to sectoral restructuring and downturn. Smith and McKinlay (2009) illustrate the precarity for most workers in the creative sector suggesting that apart from ‘star performers’, creative work is characterised by excessive labour supply and insufficient demand adding that labour market conditions have led to an exploitative and precarious nature of work.

The insecurity of the creative industries seems to be visible in the digital games sector. Typically, the industry is represented by project based work where labour is organised from one project to another (Peuter and Dyer-Witheford, 2005, Izushi and Aoyama, 2006). Due to its youth and the constant imperative of creativity and innovation, as with other areas of the creative industries employment follows a flexible employment model characterised by temporary and sub contracts, no long term employment commitment and free agent self-guided career patterns (Cadin et al, 2006). The flexible employment model suggests that labour market conditions are, at best, unstable for workers in the sector due to casual employment and the project based nature of work (Peuter and Dyer-Witheford, 2005). Despite this literature seeming to concur with elements of the labour process in software work. However work in the digital games sector tends to rely on accounts of console gaming (Cadin et al, 2006; Zackariasson et al, 2006; Cohendet and Simon, 2007; DeFillippi et al, 2007) and doesn’t take into account the changing nature of the sector.
The industry now produces software for many different formats and platforms and has been characterised by creativity and constant innovation. This has led to continuous development of new forms of entertainment, and an increasing number of devices upon which this type of software may be enjoyed. Games are increasingly being played online and technological changes are allowing for the diffusion of games across ages; these factors coupled with competitive pressures are changing the market (Plato, 2010). Socio economic changes and developments in product and technology markets have significantly changed the nature of the software market (Bergvall-Kåreborn and Howcroft, 2013).

A combination of advancements in technology, changing market, organisational and industry structures combined with a rejection of corporate controls are encouraging individuals to become independent developers (Martin and Deuze, 2009). Furthermore the emergence of mobile markets have created new opportunities for developers outside of dominant geography clusters as online Apps stores have opened up access to sell games in a variety of online marketplaces (Parker et al, 2015). Furthermore, the relative ease of production in comparison to console games have lowered perceived barriers to entry as mobile devices such as phones and tablets require less complex products and are therefore are easier to develop (Martin and Deuze, 2009). This critical lowering of barriers to entry has allowed third party game developers to create and bring to market their own games for a significantly lower cost in terms of development time. Furthermore, these changes signify new choices for developers beyond working for developing console games for large publishers and give the opportunity for developers to work in independent studios as self-employed developers. This suggests that as the nature and methods of the production changes, so might work arrangements and the way labour is organised. However, recent literature has highlighted this may not be the case. In spite of changes in the value chain that enabled independent firms to have direct access to market this has also revealed that these firms must take on the risk associated with producing products (Bergvall-Kåreborn and Howcroft, 2013). Furthermore, reduced barriers have also been met with accounts of oversaturation in the market place making profit elusive for many developers (Parker et al, 2014). Current literature is underdeveloped in this area so further understanding of this is necessary when examining this shift and the impact this may have on developers.

3.5 The cultural entrepreneur

The political remodelling from the cultural to creative industries (Garnham, 2005) together with political and media rhetoric encouraging workers to develop entrepreneurial skills have spurred on enterprise within the creative sector. A storm of rhetoric fuelled by success stories such as Steve Jobs, Mark Zuckerberg and JK Rowling (Hesmondhalgh and Banks, 2009) coupled with successive
governments of encouragement of enterprise through creativity has gone some way to altering expectations of the creative workforce to ultimately become a ‘creative class’ of model entrepreneurs (Coulsen, 2012). This highlights how structural forces have combined with agency to influence entrepreneurial activity across the creative sector.

Cultural entrepreneurialism was set in motion during the Thatcher years, and was almost fully accomplished by the Blair period due to employment neo liberalism, the promotion of the values of entrepreneurialism and individualism and reliance on commercial sponsorship (McRobbie, 2002). The movement towards cultural entrepreneurialism can be linked back to the transformation of work, the decrease of full time employees, changes to the labour market, industry restructuring and entrepreneurial initiatives such as tax breaks which have influenced to the development of entrepreneurial activity in the creative industries (Ellimier 2003; Down 2010). The creative industries have been characterised as a sector that embodies ‘best practice’ for the new challenges in the labour market (Thompson et al, 2015) as employment in the creative sector is heavily characterised by different employment relationships, flexibility, mobility, project work and short term contracts (Ellimier, 2003).

Ellimier (2003:11) likens the cultural entrepreneur to a ‘sole supplier in the professional cultural field’. Ellimier (2009:3) introduces the developing concept of the cultural entrepreneur as ‘individuals that do not follow prescribed standards but who (have to) try out their own combinations and assert themselves on the market and society’. This type of entrepreneurialism brings into question the evaluations we make of entrepreneurialism in this sector and the redefining of work in this sector. Challenging the positive interpretations of boundaryless career or portfolio working the movement towards cultural entrepreneurialism could be interpreted as the casualisation of work in this sector (Storey et al, 2005). It is therefore important to look at the interpretation of entrepreneurialism in this sector and the impact this has on individuals carrying out creative work.

The concept of the cultural entrepreneur broadly relates to the new form of labour supply conceptualised by Pongratz and Voß (2003) illustrated in the previous chapter as the ‘entreployee’ where employees are forced to redefine their capacity within the workplace and the wider labour market as a reaction to changing macro factors and insecure labour market conditions. This suggests that ‘the market’ has the capacity to control the behaviour of individuals in the absence of organisations. Although the ‘entreployee’ primarily refers to the employees within an organisation, the significant expansion by Pongratz (2008) broadened out this category to include the self-employed
business, a single person business, and the freelancer enabling the framework to be particularly applicable to the creative industries.

3.5.1 Application of the ‘entreployee’ to the creative industries

Although scholarly application to this framework is limited in the creative industries, some scholars have used this framework to understand the impact entrepreneurial activity has had on individuals within the creative industries. Haunschild and Eikhof’s (2009) study of self-employed German theatre and Pongratz and Voß’s (2003, 2008) characterisation of the ‘entreployee’ centrally to illustrate how workers have taken on entrepreneurial functions due to inhospitable labour market conditions as a consequence of changing structural forces. Haunschild and Eikhof (2009) highlight how the notion of the bohemian creative worker is more of a common aspiration rather than a reality as workers need to take on entrepreneurial capacities, act in a planned and controlled manner, and utilise social networks in order to find work. Additionally, precarity, uncertainty and relationships based on the accruement of social capital seem to be typical in the experiences of German theatre workers rather than employment based on long term commitment and security.

In software work Bergvall-Kåreborn and Howcroft’s (2013) study of mobile applications developers illustrates more precarity and uncertainty in a challenging sector. The authors illustrate the impact of entrepreneurial activity on individuals in the sector discussing the challenge of amassing the technical and social skills required to remain employable, the importance of spending time developing professional networks and the long hours needed to maintain success in the sector. Both Haunschild and Eikhof (2009) and Bergvall-Kåreborn and Howcroft (2013) explain how workers in this sector seem to accept the difficult working conditions and the centrality of work in their lives to the detriment of their non-work lives as the ‘status quo’.

Despite the limited application of the Pongratz and Voß (2003) framework to the creative industries, by looking at extant literature the next section will deploy this to illustrate the impact entrepreneurial activity has on individuals in the creative industries and software work.

3.5.2 Self-control

As highlighted earlier in this chapter self-control over the content of work is questionable in the creative sector. In the creative industries a typical notion is the idea of free and creative work, however more detailed analysis suggest that commercial imperatives limit this type of freedom to at least some degree as creative products are conceptualised and produced to limit risk (Lampel et al, 2002). Others
maintain that creative workers have some autonomy in terms of creativity over the conception of their product due to the nature of cultural work (Hesmondhalgh, 2013; Thompson et al, 2015). This correlates with Haunschild and Eikhof, (2009) who describe that workers can at least add their own artistic interpretation to production, giving them some scope for self-control in their production in contrast to non-creative occupations such as a banker or call centre worker (Haunschild and Eikhof, 2009). Additionally, this review of literature has highlighted the impact of structural changes to the creative sector which had influenced non-standard work arrangements, primarily the increasing prevalence of freelance work and self-employment. This leads to individuals having additional scope to exert self-control upon their own labour capacities in order to stay employable.

Labour mobility is presented positively in the creative industries as an opportunity for workers to transfer their skills and knowledge for personal and corporate gain (Hesmondhalgh and Banks, 2009). Furthermore, UK creative policy has shifted towards a skills agenda that emphasises the need for developing craft and technical skills (Banks, 2010). Film, television and software occupations all compete on the basis of skill but have low levels of formal training even though some training is given ‘on the job’ (Grugulis and Stoyanova, 2010) . Despite some attention on ‘communities of practice’ (Lave and Wenger, 1991) associating it with identity formation in areas of the creative sector (McLeod et al, 2011, Ibert and Grabher 2006), Grugulis and Stoyanova (2010) draw on the separation of television freelancers from conventional ‘communities of practice’ and the negative impact this has on skill formation as traditional labour markets and organisational hierarchies have declined. From this we can understand the increasing necessity for individuals to update skills under their own volition. Jones and Defillippi (1996) use the film industry as an example to illustrate the importance of career success and the continual assessment of one’s current skills alongside knowledge of when to exploit or update skills, highlighting the importance of devoting considerable effort and time to this practice. In the music industry, Coulsen (2012) highlights that accruing and maintaining a set of skills is vital to progression while Starkey et al, (2004) use the television sector to highlight the need for the development of individual career capital which involves the accruement of skills in their chosen specialism but also the necessity to take part in multiskilling to enable more varied career paths.

In contrast, areas of software work appear to be tightly controlled although the workers involved may not recognise this themselves (Barrett, 2005). The division of labour, routinisation, standardisation and normative control of software workers discussed earlier in this chapter appears on face value to limit the self-control of individuals as de-skilling and task structures appear to take autonomy out of the hands of the individuals and put control of production firmly in the hands of management.
However an alternative look at freelancers in software work, much like the creative sector reveals that this allows workers to move between employment relationships and work arrangements (Gill, 2007) which has contributed to individuals perceiving greater self-direction in the sector.

In the software sector Bergvall-Kåreborn and Howcroft (2013), Barley and Kunda (2004) and Finegold (1999) identify the continuous development needed for software developers to keep pace with the jobs market and advancing technologies in order to secure lucrative contracts in the future. Given the high levels of employee mobility in in the software sector, and that companies are unwilling to pay for skills investment as the individual may be poached by a competitor (Finegold, 1991), individual’s seek to learn through higher education, self-study or being involved in project teams where an individual can learn through combining the talents of multi-functional teams. Adams and Dimaiter (2008) argue that adaptability and innovation in the new economy require cutting edge skills and knowledge which are gained in IT through self-learning and learning from networks highlighting the need for individuals to take control of skills development. Barley and Kunda (2004) illustrate the impact of the lack of organisation skills development where the recruitment consultant took what would formally be the organisation’s role in developing the skills of workers as recruitment agencies would assess contractors’ skills and develop plans for developers to build their own expertise. Bergvall-Käreborn and Howcroft’s (2013) study of mobile app developers recognised this as many developers focused on competency development, allowing them to keep up with a competitive jobs market as market structures and platforms change, developers highlighted the need to change with them in order to maintain income streams.

Under Pongratz and Voß (2003:3) original features of the ‘entreployee’ self-control is also extended to include the management of work time, spatial arrangements and how performance is self-managed. However, in the context of software work and entrepreneurialism more clarity could be offered with regard to how individuals self-manage their working lives. Hyman et al, (2005) argue software work brings flexibility in working patterns and spatial arrangements in return for workers being prepared to work longer hours and show commitment to their work whereas Barley and Kunda (2004) illustrate tensions surrounding the management of time, maximisation of income as well as the rates charged for time and the management of holiday time.

This section has highlighted that control of the overall work process limits the self-control and autonomy entrepreneurial individuals have, as divisions of labour and standardisation means that some elements of production are out of the hands of the individual. However, entrepreneurial
individuals face challenges over controlling their employability and the management of where and at what times they actually do their work creating tensions surrounding work life balance and maximising remuneration.

3.5.3. Self-marketing

Despite considerable research highlighting the benefits of accruing and developing skills in the creative industries, there is debate as to whether skills alone assist the creative worker in sourcing new work opportunities. Blair et al, (2003) render skills virtually ineffective without the social contacts to leverage knowledge and skill while DeFillippi and Arthur, (1996) highlight the acquisition of contacts as crucial in the development of the boundaryless career. In the creative industries individuals try a series of activities in order to find work and market their own labour power. The value of networks when breaking into or finding work in the creative industries is well documented (Blair et al, 2003; Haunschild 2003; Skilton 2008; Townley et al, 2009; Hesmondhalgh and Baker, 2010; Coulsen, 2012; Siebert and Wilson, 2013; Randle et al, 2015).

Described as the defining feature of capitalist development (Castells 1996), Antcliff et al, (2007) discusses the difficulty in assessing the value of networking but argue in recent times value has been conceptualised as social capital (referring to the resources made available to an individual as a result of belonging to a network, Bourdieu and Wacquant, 1992). Recent work in the magazine, film and radio industries describe the creative industries as conforming to Wittel’s depiction of ‘network sociality’ to describe relationships amongst people and how individuals try to get ahead in the sector (Hesmondhalgh and Baker, 2009). In network sociality Wittel (2001) maintains social relations are not ‘narrational’ but informational and based primarily on an exchange of data. This replaces the community based sociality Sennett (1998: 19) describes as individuals are being “plunged into a sheer flux of networking” with “the slightest network pursued”.

Wittel (2001) points to the cultural industries where ‘network sociality’ is particularly visible and present using the new media industry to support this theory. Wittel talks about how working practices have increasingly become networking practices using the new media industry in Manhattan as a sector that is socially constructed on the grounds of networks and networking practices. In the software industry Wittel’s depiction of network sociality seem to be prevalent, Barley and Kunda (2004) note whilst human capital is important, without social capital IT workers could not make optimum use of their skills and sees software workers turn to networks as well as agencies to obtain work. They argue software workers illustrate the importance of building, maintaining and using friends and
acquaintances to find jobs, illustrating the need for these workers to work on their networks to cultivate relationships in order to generate jobs. Chou and He (2011) also maintain that the development of social capital is essential for software workers whilst working in projects arguing that it is recognised as a key factor in the development of open source projects. Barley and Kunda (2004) discuss how contractors socialise frequently with other contractors in order to find jobs and discuss the market. Whilst Barley and Kunda shows elements of network sociality, Grabher and Ibert (2006: 262) demonstrate more explicit illustrations of sociality arguing ‘catching up’ provides instrumental information for assembling teams and carrying out projects arguing “Sociality is the ears and the eyes on the informal market for jobs, projects, and relationships.” Despite limited work in the digital sector, Izushi and Aoyama (2006) illustrate how the digital games sector is heavily reliant for attracting labour on social networks, which are seen to be key to determining the industry’s evolution and competitiveness.

Self-marketing or self-commercialisation is not limited to the use of networks. Another emerging form of analysis in the creative industries is the use of unpaid labour in the production of creative products, or when working beyond ‘normal’ working hours to maintain and develop contacts or find work and develop experience in a competitive sector. Hesmondhalgh and Banks (2009) argue working for free or for subsistence wages is not uncommon in the creative sector due to the oversupply of labour (McRobbie, 1998; Ross, 2003; Hesmondhalgh and Baker, 2010). A feature of the entertainment industry is that in order to ‘get in’, individuals are expected to work without payment (or for deferred payment) in the formative stages of their career (Hesmondhalgh and Baker, 2010; Randle and Culkin, 2009; Siebert and Wilson, 2013). Blair et al., (2003) points to the Los Angeles film industry where working for free, deferred payment (payment depending on success of the film) or internships are common entry routes into the sector both in terms of building networks and gaining experience. Percival and Hesmondhalgh (2014) note that as union power has relented the oversupply of labour has resulted in the growth of use of unpaid labour, usually but not exclusively in the form of ‘work experience’ as the creative sector has embraced a culture of unpaid internships exploiting individuals’ willingness to work cheaply in return for the glamour, esteem and acclaim of working in the creative sector. The use of unpaid work through voluntary work and unpaid internships also highlights an exclusionary characteristic of the sector as individuals unable to work for free are therefore unable to gain the experience necessary for future employment (Randle et al., 2015).

The actions of entrepreneurial individuals in the software sector clearly point to increased self-commercialisation. By commercialising one’s own capacities, individuals increase their chance of
gaining work in the future. The charting of this is nothing new as examples of this are clearly found in extant literature. Perhaps what is an area of concern is that recent literature points to the enterprising techniques individuals are using to do this, as networking and the building of social capital embraces online and offline platforms and therefore is not limited to the use of conventional networks. Unpaid labour and ‘work experience’ give the opportunities to enter an industry but also enable a form of exploitation which will be investigated in detail in the next category.

3.5.4 Self-rationalisation
Self-commercialisation practices in the creative sector point to the accruement of social capital and the use of unpaid labour when trying to enter or sustain a position in the sector. An interpretation of this is that it may seem that there is an exploitative nature of these industries. However, the general acceptance of this as ‘the status quo’ is apparent as studies point to acceptance of centrality of work in individual’s lives. Practices such as networking appear to not only reinforce the precarity of work in the creative sector but also blur the boundaries of what are work and non-work hours (Hesmondhalgh and Baker, 2010). Randle and Culkin (2009) see this as leisure becoming work and friends becoming part of work time. The implication for this is the worker and in particular the freelancer has no off work or non-work time. However, a bigger issue is that all parts of non-work life become instrumentalised.

Hesmondhalgh and Baker (2009) provide further examples of conflict between creative work and working conditions in terms of working hours, work life balance and job security. These authors describe the cultural and creative industries as full of workers with short term contracts, little job protection and uncertain career prospects. Banks (2007:36) further explains the necessity of a ‘flexible’ worker in the creative industries. According to Banks, this “essentially means that one must do whatever is required to support commercial interests”. Banks continues to depict the creative industry as one where workers take on more hours, more responsibilities and relocate according to the organisational demands, thus committing themselves to commercial imperatives over and above non-work commitments. The flexibility highlighted by Banks is expanded by Haunschild and Eikhof (2009) to both spatial and temporal flexibility as they emphasise the need for German theatre workers to move where the jobs takes them. This involved sometimes relocating to different towns and cities and only staying with a creative project for a small period of time in comparison to other industries where conditions may be more stable. This impacts on life decisions that individuals may make such as buying houses or personal relationships such as friendships and relationships with spouses.
Hesmondhalgh and Baker (2009) and Banks (2007) describe how long hours and poor work life balance are enforced portraying the industry as having a “ruthless work regime”. Hesmondhalgh and Baker (2010) suggest that at best, the worker has a feeling of ambivalence towards these issues and describes a “complicated version of freedom” where isolation and brutal working conditions blur the “cool” and “liberating” image of working in the creative industries. Siebert and Wilson, (2013) explain exploitation as a complex concept and that individuals trying to enter the sector through unpaid work and internships accept it as the way things are whereas others describe these practices as ‘normal’ (Randle et al, 2015).

It is important to note that there are examples of workers that are accepting or even happy with the conditions of their work. For example Arvidsson’s et al, (2010) study of fashion workers, Ross’ (2000) investigation of dotcom working environments, and Ursell’s (2000) commentary on television work all highlight exploitation but propose it as a form of willing exploitation fuelled by the love of the job and involvement in their work. Arvidsson et al, (2010) highlight that despite dire conditions, overworked and underpaid workers exhibit high levels of satisfaction. This is explained by the authors as the power of the ‘ideology of creativity’ linking to the popularity of the ‘creative lifestyle’ and the search for self-actualisation. Arvidsson et al, (2010: 306) also points to the absence of an alternative ideology or alternative definition of reality as the fashion workers are absorbed in their world and have little form of consciousness outside their world of fashion.

Ursell (2000) explains how self-enterprising workers in television accept challenging work conditions on two levels; in one sense Ursell describes workers that love their jobs and rationalise these conditions by doing the job they love, enjoying the scope for creativity, and relishing the challenge of working in competitive environments. On the other side, these individuals consent to their own exploitation by recognising that their efforts may result in self- affirmation, the possibility of self-actualising work in the future, or the potential rewards. What is clear from this analysis is that workers in some way contribute to their own exploitation, rationalising the love and involvement in their work or by the possibilities of their consent to exploitation will lead them to receive financial and psychological benefits in the future.

In a similar outcome to Ursell (2000), Ross (2000) points to the artistic industries as an example of workers willing to take part in exploitation of their own labour who happily discount the price of their labour for the love of their craft. Ross points to the new media industry in New York where jobs are filled by contract employees or temporary workers who work 85 hour weeks without overtime pay,
and likening this to the world’s worse sweatshops. Ross’ explanation of why these individuals do this is that in the minds of the workers who characterise themselves as ‘new slaves’, it is actually ‘cool’ to be exploited.

In software work Barley and Kunda (2004) show that workers devoted considerable hours to not only compensated work but to work that involved increasing their own human and social capital, often forgoing holidays in return for long hours and more paid work. However the authors illustrate that the workers were in most cases accepting of these practices, as they felt freelancing distanced themselves from organisational life and perceived that they had more choices and more free agency. However, an alternative suggests the poor conditions of organisational life contractors hoped to get away from is simply replaced as workers are putting themselves through, for them, what is an acceptable form of exploitation in return for perceived benefits that may (or may not) come in the future.

Bergvall-Kåreborn and Howcroft’s (2013) study of application developers highlights the economic and self-actualising rationale for individuals accepting the centrality of work in their lives. Individuals would accept this centrality, or self-exploit in order to deal with peaks and troughs in the market, gain success in a competitive market environment or to reap the forthcoming rewards that would come their way if they sustained this level of work. However, other explanations for this were the sense of fun or self-actualising nature of the work that encourage developers to spend time on their work which is, at least to them, at a similar level of enjoyment to social activities they may carry out.

The analysis from these authors illustrates a complex picture of individuals consenting to or taking part in their own exploitation whether it be by the belief in future rewards, love of their job or even a complex form of cultural control that made employees feel they must do ‘their time’ in poor work conditions in order to feel like others in their sector. This raises interesting questions in terms of how much these individuals consent or are conscious of their own exploitative conditions, or whether they are aware of the conditions around them but the work gives them a sense of identity and belonging that justifies the centrality of work in their lives.

3.6 Conclusion

The focus of this study is the creative industries and more, specifically the digital games sector. Initially, this chapter focused on the nature of production in the creative industries. This section reemphasised software and digital games legitimate place within the creative industries and argued that strategies to manage unpredictability and risk that result in a loss of creativity and autonomy in the production
of creative products are as relevant to the digital games as they are to other areas of the creative sector (Tschang, 2007; Martin and Deuze, 2009).

It then turned to an analysis of the labour process in software work. Although software work represents a fairly heterogeneous group, the nature of work and examination of the labour process is fairly well researched. The rationalisation, fragmentation and routinisation of software broadly follows that of post-Fordist production. However, more normative forms of control are emerging, work in the digital games sector highlights that attachment and identification with work provides a means of control (Thompson et al, 2015) however this is difficult to establish in the context of discontinuous, casualised and fragmented work. In the contest of changing market structures and new ways of working in software and more specifically digital games, this thesis could contribute as existing literature that doesn’t represent changing industry dynamics.

Structural changes to the creative sector that have led to entrepreneurialism, enterprise and self-employment are applicable to the software and digital games sectors. The conceptualisation of the ‘entreployee’ as a new form of labour supply captured the character of entrepreneurialism in the creative sector and when considering the impact changing market forces has on individuals revealed exploitative conditions. However, its application to digital games is under researched. Primarily, this thesis intends to consider enterprise and entrepreneurialism in the creative industries and digital games sector. Also, it aims to consider the importance of community to the socialisation of workers in the sector as entreployees. More broadly as the creative industries have been presented and promoted as exemplifying new trends in the post-industrial landscape, with changing boundaries of capital, management and labour (Thompson et al, 2015), it aims to contribute to our understanding with regard to why individuals accept exploitative conditions in entrepreneurial forms of employment.
4.0 Methodology

4.1 Introduction
The purpose of this chapter is to reflect on the methodological issues involved in this study and the context in which the research was conducted, and to provide a rationale for the methodological choices made. Furthermore, it incorporates a discussion of the research methods employed and describes how the research was undertaken.

Section 4.2 presents the case of the digital games section in order to demonstrate that the sector and the location of the research provides an important and distinctive context for the study of enterprise and entrepreneurialism. It highlights the broader issues that the sector had experienced during the period of research and it will examine how this contributes to entrepreneurial activity. Furthermore, it highlights the relevance of the game development industry in the North West of England (referred to as the North West sector) and provides an explanation as to why this sector offers a useful example for the examination of entrepreneurial activity.

Section 4.3 demonstrates the epistemological issues concerned with the position of interpretivism taken in this research. Section 4.4 connects the epistemological stance with the methods that I have chosen to address the research aims. It explains my choice of method by connecting the research aims to the relevant theory to explain the advantages of the approaches used.

Section 4.5 gives a detailed explanation of the epistemological position which inform the research and the use of grounded theory. It provides an account of how the research interviews were conducted, including the sampling process. It then gives explanatory insight into the communities visited and illustrates the theoretical development of this aspect of the research. Section 4.6 considers the relationship between data collection and analysis drawing on the use of grounded theory to develop concepts and Van Maanen’s (1979) approach to the understanding of ethnographic data analysis. Finally the section illustrates the steps taken with regard to reliability and validity and acknowledges the ethical issues faced while conducting this study.

4.2 The case – Digital games in the North West
This study focuses on the digital game development industry in the UK, and in particular, the game development sector in the NW of England. The UK sector has undergone significant upheaval in recent times. The lack of investment in the UK, in comparison to the financial support given to competing
countries such as France, Ireland and Canada, has led to several negative impacts on UK digital game development (Phillips et al, 2009). Besides an exodus of skill and talent, the comparative lack of government subsidies made independent studios less attractive for large publishers and their development partners, who have consequently diverted investment away from UK studios (Nesta, 2010). Despite the recent government U-turn on tax concessions, at the time of the research tax relief to UK games firms was still under review (Nesta, 2014).

In the mid 2000’s the evolution of console generations led the sector to be characterised as one in transition. In the 1990’s the popularity of consoles such as the original PlayStation led to a buoyant development market. However, the arrival of the 6th generation consoles such as the PlayStation2 resulted in a reduced market leaving development firms facing increased development costs and a new-found risk awareness due to the slower growth in the console. As a reaction, publishers concentrated production on a small number of high budget titles and refocused towards internal production, supported by a number of acquisitions of third party developers, which resulted in scarcity of contract work for smaller development teams. The consequence of these activities was an oversupply of smaller game development firms as the market went from a state of equilibrium to one of extreme over-supply (BERR, 2007).

Poor Management and the growing strength of the dollar exacerbated the pace of company failures. Management strategies to grow involved taking on extra projects, however this was accompanied with a failure to maintain cash flow between projects (BERR, 2007). This, combined with an inexperience in raising capital, sudden project cancellations by publishers and an inability to access royalties, resulted in firms experiencing difficulties in breaking even (BERR, 2007). These failures were aggravated by the decreasing value of the pound versus the dollar, which made UK development expensive for the US dominated publishing industry. By 2000-2006 this collection of circumstances went some way towards contributing to the large scale closure of studios in the UK (Nesta, 2008). The outcome of managerial failures and the closure of studios was a leaner, more efficient sector as studios learnt to manage their costs, plan for project gaps and outsource in order to keep track of rising development costs. The consequence of this was that large numbers of staff were made redundant as nearly half of UK studios went out of business during this period (Nesta, 2008).

Innovations and technological advances in the sector also fuelled growth in smaller independent studios. Digital distribution is allowing for a diversity of content to reach the market. The internet has provided direct access to distributors without the investment required for retail space as there was
no need for a physical product. As digital distribution primarily caters for niche markets with simpler games and smaller file sizes, this has enabled third party developers to make smaller games on a variety of platforms (Martin and Deuze, 2009). Furthermore, the emergence of game development tools such as ‘Unity’, have provided basic content for the developer, enabling them to focus their efforts on the content of their production (Parker et al, 2014). Finally, the increased consumption of mobile devices and affordability of data plans have provided developers with opportunities to develop games on mobile platforms. For example, Apple’s iPhone Software Development Kit (SDK) and Google’s open source platform has allowed games to be made and sold on the App store and Google Play stores respectively (Bergvall-Kåreborn and Howcroft, 2013). This has amounted to a major change in the development of games as mobile phones, browser-based Internet sites, and digital distribution networks have increased accessibility and provided new opportunities for developers.

The evolution of the sector appear to have an influence on employment. Contrary to some suggestions that the labour force in digital game development is rising (BERR, 2007), more recent data suggests that the number of developers working in the sector in the UK declined from an industry high of 9,400 in 2004 to 7,000 in 2009 (Skillset, 2011). There was an accelerating trend of vertical integration in the mid 2000’s where smaller companies were acquired by large publishers. From these statistics we can understand that in the context of changing structural conditions there has been a growt in the number of smaller independent studios. However, much of the employment in the sector is now characterised by small development teams as the majority of companies (80 per cent) have fewer than four employees and only 5 per cent of firms have between 100 and 249 employees (Skillset, 2011).

The North West has been characterised historically as a creative cluster for digital game development (Johns, 2006) with companies operating across the ‘M62 network’ between Manchester and Liverpool dominating UK game development in the 1980s and 1990s. By 2009, the North West region games cluster had declined in relative importance due to the transformations described above, and was characterised as one with varying scales of operation; one firm managed multi million pound projects and the others managed projects varying between £500,000 and £30,000. The region employed more than 360 employees. The turnover exceeded £30 million with the largest firm employing more than 150 employees and having a turnover of more than £10 million (Phillips et al, 2009).

This creative cluster for game development has gone through some notable changes regarding the structure and constitution of game development firms. A distinctive characteristic of the North West was that a number of large, established development studios were acquired in the 2000s by foreign
owned publishers whereas other regional clusters had a greater number of independent developers (Phillips et al, 2009). Therefore the region was more exposed to changing investment strategies of large international development firms. As a consequence of the conditions described in this section, by 2010 several large studios had downsized or closed down including Bizarre Creations, Sony Computer Entertainment in Liverpool and THQ in Warrington (Tyler, 2011). As a result, perhaps because the North West had a high number of highly skilled highly paid developers (Phillips et al, 2009), there has been an increase in the formation of smaller businesses with the sector now characterised by a mixture of large established companies and a growing number of smaller younger companies predominately located around Manchester and Liverpool (Nesta, 2014).

The North West is thus an important context in which to examine entrepreneurial activity. The structural changes to the composition of firms in this regional sector have led to its emergence as an entrepreneurial ‘cluster’ for digital games development. The fieldwork took place over 2012 and 2013 in various locations in North West England including Manchester, Chester, Preston, Bolton, Wilmslow and Macclesfield.

4.3 Epistemological underpinnings – The rationale for interpretivism

The fieldwork was undertaken underpinned by the epistemological position of interpretivism. Epistemological issues are concerned with what is viewed as acceptable knowledge about the social world. A central tenet of this debate is the question of whether or not the social world can and should be studied according to the same principles, procedures and ethos as in the natural sciences (Bryman and Bell, 2011:15). Knowledge in the natural sciences is associated with the epistemological position of positivism. Broadly, positivism suggests that the social world exists externally and therefore its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection and intuition (Easterby-Smith, Thorpe and Jackson 2005:57). It rests on the premise that there is a single objective reality or ‘truth’ which can be found by thorough scientific investigation (Gilbert, 2001). The epistemological approach chosen has rejected positivism, in favour of interpretivism based on concerns surrounding the nature of researcher neutrality and the subjective nature of acceptable knowledge. This section will set out the reasons behind the choice of approach and then outline how this perspective informs the methodology.

The first reason for the theoretical approach of interpretivism is based on the nature of reality. Positivism encourages a concern for an ‘objective’ form of knowledge specifying the precise nature of laws and relationships presenting phenomena as ‘social facts’ (Morgan and Smircich, 1980:493).
However in contrast, interpretivism emphasises that the subject matter of the social sciences, people and their institutions, are fundamentally different from that of the natural sciences from which positivism is derived. Interpretivism acknowledges that human nature is socially constructed and has multiple meanings. This suggests that to understand ‘social facts’, recognising the varieties of meanings is necessary (Bryman and Bell, 2011:16). As interpretivism emphasises the multiple, subjective realities that exist in the social world and that different realities mean different things to different people (Gilbert, 2001:33), this theoretical position was taken. As the aim of this research is to understand the subjective realities of developers in the digital games sector, and how this illuminates their behaviour, it is important to remain sensitive to the diversity of accounts of developers.

The second reason for the theoretical approach of interpretivism is that the contrasting approach of positivism implies that a neutral observer can view the world objectively, essentially seeing it as a concrete structure. The interpretivist tradition is based on a contrasting set of philosophical assumptions regarding the nature of reality and the role of the researcher (Gilbert, 2001). Morgan and Smircich (1980) put forward an alternative position to positivism recognising a phenomenological-orientated perspective in the search for acceptable knowledge. This emphasises the subjective nature of the researcher and the notion that ‘knowledge’ is no more than an expression of the scientist’s personal frame of reference on the world. They argue that positivists mistakenly understand themselves as lying in an external realm thus ignoring their own subjective construction and their role as agents through which knowledge is perceived or experienced. This point supports the epistemological position of interpretivism as it accepts the subjective role as a researcher as research is based on my view of the world and my interpretation of the accounts, actions and behaviours of developers.

4.4 The use of qualitative techniques

The primary distinction between approaches to data collection and analysis is qualitative and quantitative. These approaches have been linked to different and often opposing/competing research traditions (Gilbert, 2001:32) and philosophical assumptions (Giddens, 1976). Maxwell (2010), however, suggests we should move on from the ‘paradigm wars’ that divide quantitative and qualitative methods on a philosophical approach and distinctions of observation and measurement or hard or rich data, and instead presents qualitative and quantitative research as conceptual lenses which influence (but not exclusively govern) the construction of data collected. This is founded on a distinction between the analysis of variables and correlations which presumes general causation
(typically a qualitative approach), and local analysis of individuals, events and settings which does not seek to find ‘generalisable’ conclusions (typically a qualitative approach) (Maxwell, 2010:477). As the aims of this study are to understand ‘how’ rather than ‘what’, there is a need to explore how individual subjects each understand and construct meaning out of the world around them, through their perceptions of the labour market, for instance, or the nature of capitalist market competition. As a consequence, a qualitative and interpretative approach was taken. In accordance with this approach the methods for the collection of data are interviews and an ethnography.

4.5 The selection of methods

This section outlines the rationale for this methodological choice. It highlights the strength of interviews to reveal perceptions of changing market conditions and working practices. Also, the relevance of social networks and occupational communities in software work illustrates the justification of the use of ethnography of networking events to complement interviews.

In order to address the research aims it was necessary to understand the opinions, beliefs and perceptions of the market conditions and the employment choices amongst respondents. The ability of the qualitative research to explore everyday behaviours (Silverman, 2013) allowed the understanding of relationships between market conditions and employment choices. The use of qualitative techniques enabled an understanding of the subjective experiences of participants (Bryman and Bell, 2011) through the development of closer relationships with the participants in comparison to quantitative techniques (Bryman and Bell, 2011). Furthermore, qualitative techniques encouraged the expression of multiple realities, perspectives and behaviours within the context in which they act which enabled an understanding of the variance in the realities that exist amongst participants (Kaplan and Maxwell, 1994). This has made for a better understanding of the impact of the context of employment conditions and entrepreneurialism within the sector.

The use of interviews was chosen in order to discover the views, the perceptions, and the opinions of everyday experiences of participants (Easterby-Smith, Thorpe and Jackson, 2005). The intention of the research aim is to examine ‘how’ developers understand labour market conditions and how this contributes to enterprise and entrepreneurialism as well as examining ‘how’ individuals construct and rationalise changing working conditions. In-depth interviews were deemed to be an appropriate method to investigate these types of research aims (Holstein and Gubrium, 1995). Open ended semi-structured interviews were selected to allow for a greater breadth of data than other types of interview (Fontana and Frey, 2003:74). This involved keeping a loose format as the sequence of
questions were altered and participants were probed for more information when necessary (Kaplan and Maxwell, 1994:40) Importantly, the use of open-ended semi-structured interviews enabled the probing of unanticipated and potentially valuable information relating to the perceptions of changing market conditions and the working practices of participants. Furthermore, it enabled the adaption of questions to the respondent’s comprehension and experience to ensure a reliable response should respondents misunderstand the nature of the questions (Fielding and Thomas, 2012:246). The purpose of the interviews is to gain a rich insight into of the participants’ subjective experiences of entrepreneurialism in the local sector.

One characteristic of interviews is that they capture the thoughts of respondents at that particular time as the interview relies on reality constructing ‘meaning making occasions’ (Holstein and Gubrium, 1995). However, anthropologists argue that if one is to understand a group of people, extended periods of observation are necessary (Silverman, 2013). This research study also used ethnography in order to add depth to the study and allowed the researcher to meet developers in their own domain. The researcher looked for patterns in social organisation and ideational systems (Wolcott, 2008) expressed through observing how developers behaved and interacted with each other within the group during networking events, giving additional insights into the behaviour of the group (Creswell, 2013). For this reason an ethnography of networking events was conducted to add depth and context to the research in order to observe the setting to gain further appreciation of behaviour (Van Maanen, 1979). The usefulness of carrying out an ethnography of networking events was further supported by the relevance of social networks, occupational communities and communities of practice in software ecologies (Ibert and Grebher, 2006). Additionally, the digital games sector is argued to be heavily reliant on social networks to attract labour (Izushi and Aoyama, 2006) with those networks playing a major role in shaping the industry’s evolution and competitiveness (Izushi and Aoyama, 2006). The choice of ethnography was further supported by ethnographies in software work such as Perlow (1998), and Barley and Kunda (2004), the latter with a specific emphasis on freelancers.

The role of an ‘overt ethnographer’ was undertaken where the purpose and intentions of the research were fully disclosed (Crang and Cook, 2007). Thus it was decided to take the role of ‘participant as observer’ (Van Maanen, 1979) which allowed the position of a researcher to be undertaken in the community. The overt ethnography permitted an upfront and honest relationship with developers regarding the nature of the research and a credible explanation for detailed probing, questioning and participation at networking events. As complex matters relating to employment conditions were dealt with, this approach facilitated the trust of participants. The advantage of this was that it enabled
probing of issues that participants did not elaborate on in order to gain a further appreciation of the dynamics of the sector.

However, during the overt ethnography and the ‘participant as observer’ role, different roles needed to be taken at different times which reflected differing degrees of involvement with the networking groups. In certain situations the role of total participant was undertaken, in others the role of total researcher, simply watching what was going on. Other situations dictated the ‘researcher-participant’ role resulting in semi-involvement with the group (Bryman and Bell, 2011). Acting out varying roles enabled the avoidance of ‘going native’ and the maintenance of a research identity whilst representing a functional member of the community (Bryman and Bell, 2011).

This section has explained the choice of in-depth interviews and ethnography as the research methodology. Primarily, interviews were undertaken to understand the perceptions, opinions and everyday experiences of developers. This choice was deemed appropriate given the nature of the research questions and their ability to probe the subjective experiences of developers. Ethnography was also selected in order to provide context and detail to the interviews as observing participants over a period of time.

4.6 Conducting the research

The first phase of research was conducted using grounded theory, enabling constant comparisons between theory and data (Denzin and Lincoln, 2003). Rather than in its purist sense, which suggests that entering the field is done without any preconceptions (Glaser and Strauss, 1967), this was to support the deliberate inductive and exploratory nature of the research. In grounded theory, research does not begin with a hypothesis but rather it lets the theoretical analysis emerge from the collection of data (Silverman, 2013). Initially the data was collected in a non-prescriptive manner. While there was some general interest in studying areas related to the research aims, the imposition of a ‘preconceived theoretical framework’ was consciously avoided (Glaser and Strauss, 1967). Using this method it allowed a broadening or modifying of initial research focus, it also ensured the continual relationship between data collection and theory and made sure that the initial findings were grounded in data generated through the interviews and observation (Silverman, 2013).

The initial focus of the research aimed to explore current market conditions relevant to the digital games sector. After the analysis and interpretation of the first phase of data, more specific questions emerged relating to the impact of market conditions. This prompted a focused study surrounding existing theoretical concepts. This represented the utilisation of theoretical sampling where
interpretations of initial data collection decided what data to collect next (Silverman, 2013). This enabled the outcomes of preliminary analysis, orientated around the exploration of particular themes (Hodkinson, 2008) to feed back into further data collection. When these themes were saturated, data collection ended (Charmaz and Bryant, 2011). The practicalities of this will now be detailed in the next section.

4.6.1 Phased interviews

In the first phase of interviews explorative interviews were conducted. These were investigating general issues regarding work and employment in the digital games sector in the North West of England, and took place in 2012. The aim of these initial interviews was to gain a greater understanding of the digital games sector from a number of individuals involved in the sector. The use of exploratory interviews allowed respondents to freely express their views regarding the market conditions of the digital games sector and highlight specific issues that impacted on the production of digital games.

The interviews used a sample of four respondents who had experience of management roles in the digital games sector in the North West. Each of these respondents had some degree of managerial experience, were currently working locally and had experience of producing games on a variety of platforms. The interviews were face-to-face in the homes of the respondents, in local bars and restaurants, or after networking events, depending on the personal preference of the respondents. The interviews lasted between 30 minutes and one hour. A semi-structured interview guide was used which began with the respondents discussing their background in the digital games industry and their current position, it then investigated areas surrounding the labour market, creativity at work, management control, different platforms of production, working conditions and the use of networks. All interviews were recorded and transcribed verbatim.

After mapping the commonalities between the emerging themes the work of Pongratz and Voß (2003) and Pongratz (2008) became apposite. Of particular relevance was how the changing market structures, such as digital distribution and the composition of firms, encouraged developers to take on entrepreneurial functions leading to an increasing necessity to redefine themselves in the workplace and the wider labour market. In the light of conversations with these respondents, this stage of interviews fed into more specific research questions with developers and sector observers to understand the conditions in which they worked.
The second phase of interviews focused on more specific questions which were developed from analysis of the exploratory interviews (see appendix 1 for interview guide). As with the exploratory interviews a semi-structured interview guide was used. The focus was on self-employed developers and aimed to capture their perceptions of the labour market and how this influences their employment choices. The interviews then focused on gaining an understanding of the working experiences and employment conditions of the developers. Particular emphasis was paid to understanding reasons for working in the digital games sector, individual perceptions of the labour market, working practices, working hours and strategies for entering/movement in the labour market and the effect that working conditions had on individuals. The questions were deliberately focused around the emerging themes from the work of Pongratz and Voß (2003) and Pongratz (2008). So as not to guide respondents in a certain direction, broad questions were asked to establish whether the common experiences of developers were applicable to this conceptualisation.

4.6.2 Sampling and participants

The participants were selected by convenience sampling on the basis of accessibility (Bryman and Bell, 2011:190). Respondents were contacted by ‘cold call’ emails and asked to participate in the study. During the interviews a ‘snowball technique’ was undertaken which involved asking respondents to recommend others (Easterby-Smith, Thorpe and Jackson, 2005:218). Additional contacts were made at networking groups and interviews were arranged via email after the initial contact was made. Towards the end of the data collection process respondents were gathered via a mailing list circulated after networking events. In order to overcome the potential problems of representativeness in snowball and convenience sampling (Gilbert, 2001) as many ‘networks’ as possible were explored to enhance the representativeness of the sample. As the purpose of the study was not to generalise but focus on subjective ‘anecdotal’ experiences, this was an acceptable strategy to undertake. The recruitment of participants continued until theoretical saturation was reached and there was little new or relevant information retrieved from the data (Hodkinson, 2008).

In total 21 participants were interviewed through a mixture of Skype and face to face discussions. The developers interviewed represented a varied grouping as the sample was taken from a mix of ages and roles within the sector in order to capture a wide range of experiences (see list of participants). There was a gender imbalance in the research given the under-representation of women, however the gender imbalance in the data collection is broadly indicative of wider trends within the software sector (Adam et al, 2006).
The developers interviewed produced a mixture of PC and mobile games with around 60 per cent of the respondents operating as self-employed ‘Indie’ or freelance developers. While the study was specifically aimed at self-employed developers, it also included developers in full time employment in order to draw comparisons on common work experiences and allow the developers to give their assessment of labour market conditions. It also included individuals working in peripheral areas of the sector and those looking to enter the labour market in the near future. A recruitment consultant who specialised in digital games was included in the study in order to give insights into labour market conditions. A lecturer in a local games college was also selected in order to provide additional context and background to labour market conditions. This respondent also had considerable experience working in the digital games sector in the North West so could share his own experiences. Furthermore, due to his close relationships with students looking to enter the sector, he could elaborate on students’ expectations when hoping to enter the labour market. Essentially the recruitment agent and lecturer acted as ‘sector observers’ and were therefore able to add their accounts, add context and additional perspectives to accounts of self-employment in the local sector. Additionally, one graduate planning to start a career in the digital games sector was interviewed. This enabled access to a fresh perspective on labour market conditions. Although the respondent was primarily a student he had some experience of freelancing and internships.

4.6.2.1 List of participants

<table>
<thead>
<tr>
<th>Name (pseudonyms)</th>
<th>Age</th>
<th>Gender</th>
<th>Occupation</th>
<th>Location</th>
<th>Interview</th>
<th>Company size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim</td>
<td>Early 40s</td>
<td>Male</td>
<td>Chief Operating Officer</td>
<td>Manchester</td>
<td>Face to Face</td>
<td>100+</td>
</tr>
<tr>
<td>Alistair (Ali)</td>
<td>Early 40s</td>
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<td>Owner</td>
<td>Lymm</td>
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</tr>
<tr>
<td>Victor</td>
<td>Late 40s</td>
<td>Male</td>
<td>Global Head of Business Development and co-owner</td>
<td>Macclesfield</td>
<td>Face to Face</td>
<td>1000+</td>
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<tr>
<td>Alan</td>
<td>Early 40s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Manchester</td>
<td>Face to Face</td>
<td>2</td>
</tr>
<tr>
<td>Pad</td>
<td>Late 40s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Manchester</td>
<td>Skype</td>
<td>2</td>
</tr>
<tr>
<td>Bill</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Manchester</td>
<td>Skype</td>
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</tr>
<tr>
<td>Phil</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Manchester</td>
<td>Face to Face</td>
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<tr>
<td>Ryan</td>
<td>Early 20s</td>
<td>Male</td>
<td>Full time developer</td>
<td>Wilmslow</td>
<td>Skype</td>
<td>20+</td>
</tr>
<tr>
<td>Sabi</td>
<td>Early 20s</td>
<td>Male</td>
<td>Recruitment Consultant</td>
<td>Wilmslow</td>
<td>Face to Face</td>
<td>20+</td>
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</table>
Table 4.1: List of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Age Group</th>
<th>Gender</th>
<th>Occupation Details</th>
<th>Location</th>
<th>Communication Method</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simon</td>
<td>Early 20s</td>
<td>Male</td>
<td>Freelance narrative Designer/Marketing Manager, organiser of local networking group</td>
<td>Chester</td>
<td>Skype</td>
<td>Freelance</td>
</tr>
<tr>
<td>Chris</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Chester</td>
<td>Skype</td>
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</tr>
<tr>
<td>Bobby</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-Owner</td>
<td>Chester</td>
<td>Skype</td>
<td>2</td>
</tr>
<tr>
<td>Jay</td>
<td>Early 20s</td>
<td>Male</td>
<td>Graduate looking to get into the industry</td>
<td>Chester</td>
<td>Skype</td>
<td>Graduate</td>
</tr>
<tr>
<td>Owen</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-owner</td>
<td>Preston</td>
<td>Skype</td>
<td>4</td>
</tr>
<tr>
<td>Jack</td>
<td>Early 20s</td>
<td>Male</td>
<td>Co-owner and Environmental Artist</td>
<td>Manchester</td>
<td>Skype</td>
<td>4</td>
</tr>
<tr>
<td>Ross</td>
<td>Late 20s</td>
<td>Male</td>
<td>Full time Flash developer</td>
<td>Wilmslow</td>
<td>Face to Face</td>
<td>50+</td>
</tr>
<tr>
<td>Seb</td>
<td>Mid-20s</td>
<td>Male</td>
<td>Artist</td>
<td>Wilmslow</td>
<td>Skype</td>
<td>30+</td>
</tr>
<tr>
<td>Kevin</td>
<td>Early 40s</td>
<td>Male</td>
<td>Lecturer, Head of Games</td>
<td>Manchester</td>
<td>Face to Face</td>
<td>Lecturer</td>
</tr>
<tr>
<td>Sven</td>
<td>Early 20s</td>
<td>Male</td>
<td>Artist</td>
<td>Wilmslow</td>
<td>Skype</td>
<td>30+</td>
</tr>
<tr>
<td>Gill</td>
<td>Early 20s</td>
<td>Female</td>
<td>Full time developer</td>
<td>Manchester</td>
<td>Skype</td>
<td>30+</td>
</tr>
<tr>
<td>Winnie</td>
<td>Late 20s</td>
<td>Female</td>
<td>Co-Owner</td>
<td>Manchester</td>
<td>Skype</td>
<td>2</td>
</tr>
</tbody>
</table>

4.6.3 Describing the Ethnography

As highlighted the study also involved an overt ethnography of a series of networking events (see Table 3). The two networking events have been given pseudonyms - one titled ‘The Sector’, the other titled ‘The Scene’. This phase of the empirical research took place between March 2012 and December 2013. The rationale between the time gaps in attending these networking events is reflected in the time it took for the data collection and the refinement of theoretical focus to develop. Whilst a fuller description of events can be found in chapter 7, this section will highlight how this element of the data was collected.

Access to networking events was arranged through invitations from organisers who were interviewed. Participant ‘Jim’ was a founder and organiser of ‘The Sector’ whereas participant ‘Simon’ was a founder and organiser of ‘The Scene’. Although the groups were not private settings as access was
open to all, these participants acted as ‘gatekeepers’ and provided a loose form of ‘sponsorship’ (Seale, 2013) on initial entry. However, contact was not regular throughout the events and they did not try to intervene or try to present a favourable representation of the community. Access to the group was not solely concerned with access to the event but also access to people within the event. In order to address the concerns of my legitimacy within the occupational community, the role of a researcher was ‘played up’ which also legitimised the role of an overt ethnographer acting as participant and observer (Bryman and Bell, 2011).

The networking event at ‘The Sector’ took place in city centre bars and function rooms in Manchester. The events were focused on the broad area of the digital sector and were attended by digital games developers, software developers, senior managers and recruitment specialists; the gender of attendees was heavily weighted towards males. These events were more ‘corporate’ and usually took the form of panel sessions with local figureheads in the digital sector with informal drinks before and after these sessions to encourage networking and interaction. Between thirty and forty people attended these events.

The scene was focused on the digital games sector. Attendees included game developers in full employment, freelance developers with a variety of specialisms such as artists, programmers, level designers, recruitment specialists, lecturers and teachers, representatives from hardware manufacturers and owners of local independent development studios. The size of the events varied with the first events attracting between twenty and thirty people and the latter events having over one hundred and fifty attendees. Activities in these networking events varied with panel discussions, game development based ‘pub quizzes’, speed networking exercises and informal question and answer sessions with the organisers and guest speakers. A twitter wall allowed developers to make ‘real time’ comments during the evening events.

The purpose of the ethnography was to understand the dynamics of the occupational community. This included how and why individuals at the events constructed their social world (Rosen, 1991), the rules of behaviour, and the membership boundaries. In order to understand these elements of the occupational community varying classifications of the ‘participant in an observer’ role were undertaken. This allowed for varying degrees of involvement and attachment with the occupational community (Bryman and Bell, 2011). Activities at ‘The Sector’ consisted primarily of panel discussions with informal drinks and networking before and after. Although there was little opportunity to explore and talk to developers during the panel discussion this feature was vital for understanding established
rules of behaviour in the occupational community. During informal networking attendees’ views on issues raised in the interviews, topics were gathered such as changing market conditions, working practices and the effect working conditions had on individuals. Activities at ‘The Scene’ included a ‘pub quiz’ and involved ‘hanging around’ with developers during networking periods. These activities enabled the forging of relationships, through informal conversations and enabling immersion into the group. Additionally, the twitter wall and panel discussions gave an understanding of established rules of behaviour in the occupational community which was reflected on, alongside the attendees.

4.6.3.1 List of events

<table>
<thead>
<tr>
<th>Name of event</th>
<th>Date</th>
<th>Type of event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sector</td>
<td>12/03/2012</td>
<td>Panel discussion and Networking</td>
<td>Manchester</td>
</tr>
<tr>
<td>The sector</td>
<td>10/04/2012</td>
<td>Panel discussion and Networking</td>
<td>Manchester</td>
</tr>
<tr>
<td>The scene</td>
<td>30/06/2012</td>
<td>Quiz and Networking</td>
<td>Chester</td>
</tr>
<tr>
<td>The scene</td>
<td>11/08/2012</td>
<td>Quiz and Networking</td>
<td>Liverpool</td>
</tr>
<tr>
<td>The scene</td>
<td>08/12/2013</td>
<td>Panel discussion and Networking</td>
<td>Liverpool</td>
</tr>
</tbody>
</table>

Table 4.2: List of networking events

4.7 Data Analysis

The process of data analysis was based on an iterative process with interplay between collection and analysis of data to identify concepts and themes. As previously discussed, the initial data collection and analysis was an emergent and iterative process where the initial exploratory interviews were used to assess the general conditions of the digital games sector. These led to a more focused phase of data collection orientated around themes such as labour market conditions, entrepreneurialism and work conditions.

The research was coded by the use of a data analysis tool (NVivo). In accordance with Glaser and Strauss’ (1967) original formulation of grounded theory, the first stage of interview data analysis started by reflective reading of the text and assigning new codes every instance a new theme emerged. This represented open coding in order to generate concepts. Codes were assigned as they reoccurred. This meant that the codes and categories used emerged from the research. In the initial
stages of the analysis codes were detailed, specific and numerous. As the data collection continued
the initial codes were combined into larger categories and those properties and the relationships with
each other began to provide a theoretical explanation of the data (Hodkinson, 2008:87).

Common themes that began to appear focused on the changes in the sizes of businesses operating in
digital games in the North West and changes in the sectoral labour market. These discussions began
to identify what led to changes to the composition of the labour market and the influences revealing
that contract work, freelancing and self-employment were commonplace within the sector. This
represented a theoretical sampling approach which involved going back to the field and recruiting
participants in a targeted manner (Hodkinson, 2008).

In the next phase of interviews this process was repeated in new categories and new codes were
assigned. Themes such as challenging labour market conditions, precarity of work and the importance
of establishing and managing networks became apparent. During the analysis of the data, themes
within the work of Pongratz and Voß (2003) were particularly pertinent as many were elaborated on
by the respondents. These were then probed by the researcher in order to provide additional depth.
The interviews, the data collection and the analysis were continued until theoretical saturation was
achieved.

Analysis of the ethnography also involved an interplay between the collection and the analysis of data
to identify concepts and themes. Field notes were taken during and after each event. During the
events initial reflections were gathered briefly and digitally recorded while participating or observing
certain situations. After each event more detailed notes were taken to reflect the nature of the
exchanges, information about the events, the people involved and the rituals. Notes were taken in situ
highlighting the interpretations of accounts and emotions relating to the fieldwork experience. It
became apparent that market conditions and entrepreneurial activity highlighted in the first and
second phases of interviews were relevant which enabled further analysis of interpretations of the
first phase of empirical work. This information was used to further probe participants to gain further
elaboration of key themes.

The next phase of data analysis drew on the procedure of the first order and the second order
concepts (Van Maanen, 1979) to understand the activities, the rituals and actions at networking
groups. Broadly, this entailed organising the ‘facts’ (or descriptive properties) of the ethnographic
investigation (first order concept) and considering theories that could be used to organise and explain

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those facts (second order concepts). As ethnography can be described as interpretations, this method can be considered as collecting and analysing ‘interpretations of interpretations’ (Van Maanen, 1979). During the later stages of the ethnography it became apparent that the actions and attitudes towards their work conditions could be partially explained by examining the properties, the established practices and the rules of behaviour within the occupational community. In order to understand the influence of the occupational community, tweets that were sent to the ‘twitter wall’ and emails from event organisers were included to further enhance the theorisation. The data collection and analysis was continued until theoretical saturation was achieved.

4.8 Reliability and validity

Validity refers to the credibility of our interpretations (Silverman, 2013). Quantitative research implies “the existence of a single ‘objective’ reality that can be measured and statistically analysed to reach generalisable conclusions”. A criticism often raised by positivist researchers is that the absence of quantitative and numerical studies prevents the research from being ‘fully scientific’ (Maxwell, 2010:15). However, a counter charge to this is that quantitative researchers have no ‘golden key’ to validity, as interpretation is inevitable even in hard quantitative measures as positivist methodologies cannot be separated from some degree of selective rendering (Silverman, 2013:286).

Concerns of ‘the problem of anecdotalism’ and thus validity is characterised by the temptation to base the critical investigation on ‘well-chosen examples.’ These have been highlighted as a key criticism of a qualitative approach, particularly in the case of ethnographic research as it presents grounds for concern for the representative or generalisability (Silverman, 2013). In response, several points should be made. Firstly, the interpretivist model used in this research does not suggest that universal and decontextualized ‘truth’ can be established through research. It also accepts that if the researcher is instrumental in the collection and the analysis of data, the study will be subjective as different scholars may approach research questions in different ways and interpret results differently (Kaplan and Maxwell, 1994). Additionally, the use of two methods (interviews and ethnography), research settings (entering different occupational communities) and comprehensive data treatment were selected to ensure that the findings resisted any accusation surrounding validity (Silverman, 2013). Finally, in the case of the ethnography, the strength of this method is also its weakness but the critical strength of this study comes from the ability to explicitly include subjective perceptions and worldviews into the study. In essence, this research is a purely interpretative account. The researcher acknowledges that this is a subjective study and accepts the researcher’s role as instrumental in the research.
Maylor and Blackman (2005:362) explain that usually quantitative studies are considered to have higher levels of reliability than qualitative studies, particularly those that are unstructured, as it would be difficult to repeat as situations, people and dynamics change. This point is supported by Lecompte and Goetz (1982) who argue that it is impossible to freeze a social setting and the circumstances surrounding the study in order to make it replicable. In order to overcome these problems the researcher made verbatim transcriptions of the interviews and detailed descriptions of the networking events, allowing others to highlight their own interpretations about the research.

4.9 Ethical issues

Bulmer (2001:47) highlights the ethical problems in the conduct of research. Bulmer introduces a series of principles which must be considered whilst carrying out empirical study:

- Informed consent - generally taken to mean those who are the subjects have the right to know they are being researched and they have actively given their consent.
- Respect for privacy - not to intrude into areas deemed as private.
- Safeguarding of data - ensuring the data is collected, stored and disseminated in safe conditions.
- Harm to subjects and researchers - consequences of research that may lead to harm to those being researched and those doing the research.
- Deceit and lying in the course of research - not to deceive a participant or misrepresent the research.

Bulmer (2001:47)

These ethical guidelines were adhered to during the study. Before any interviews took place consent was gained, respondents were informed about the nature of the research and assured that any data would be kept safely, remain anonymous and remain confidential. Whilst it was important to gain insights into the private lives of respondents, it was equally important not to intrude on the respondents’ privacy; this was a particularly difficult issue as much of the research involved probing respondents’ working conditions and the consequences of this on their non-working lives. In addition, although no physical harm would be suffered by the respondents it was critical to the research to investigate potentially stressful issues. However, the researcher took reasonable precautions to ensure that there would be no harm to participants’ self-esteem and that the interview would not be stressful to participants. In addition to the ethical guidelines drawn from Bulmer (2001) the research was assessed and received ethical approval from the University where the study was based.
4.10 Conclusion

This chapter has provided an overview of the methodological approach taken. In section 4.2 the case of the digital games sector was introduced with particular emphasis on the North West sector and its capacity to be understood as entrepreneurial, thus justifying the applicability of this sector to answer the research aims. Section 4.3 outlined the theoretical approach of interpretivism and explained key elements including the formation of knowledge, the subjective nature of reality, and the role of the researcher in creating knowledge. It then moved on to elucidating the methods used in this study. It presented in-depth interviews and ethnography as an appropriate means to answering the research aims drawing on the ability of in-depth interviews to understand the views and the perceptions of participants and ethnography to give additional insights into the behaviours of individuals within occupational communities. Section 4.5 illustrated the practicalities of conducting the research, highlighting the use of grounded theory to inform the development of the research and the emergence of theoretical concepts. It demonstrated how participants were identified and how the sampling method was appropriate to meet the research aims of the study, to examine entrepreneurial activity in the sector. It then moved on to describe the ‘overt ethnography’ at a series of networking events briefly describing how access was gained and my role within the occupational communities entered. Section 4.5 highlighted the method of data analysis and described it as an iterative process of data collection and analysis to identify concepts and themes. It also illustrated the procedure used to understand the ethnography drawing on Van Maanen’s (1979) use of first and second order concepts. It then discussed validity and reliability in qualitative research highlighting the critical strength of the research to bring bias, perceptions, observations and knowledge to the study. Finally, it discussed the ethical issues that concerned this research.
5.0 Encouraging enterprise

5.1 Introduction
This chapter presents an analysis of the findings which demonstrate how digital distribution, the local sectoral labour market, and managerial strategies that have been implemented to limit risk are perceived by developers. Furthermore, within this context, it considers how different interpretations of changing macro conditions frame the actions of developers, leading to diverse articulations of ‘choice’ when developers describe their motivation to become self-employed.

First, this chapter will examine the views on the changing nature of production in the digital games sector whereby digital distribution has enabled third party development, leading developers to believe that they can wrest more control over their own production. It will then highlight a number of accounts of the regional labour market, thus revealing the challenging circumstances for developers as the closure of many large studios has resulted in firms moving their production outside of the local area. Finally, it will consider various accounts of managerial strategies that have been imposed by firms in order to limit the risk and maintain control over production, highlighting conditions which in turn limit creativity and autonomy.

The purpose of the first part of this chapter is not to contribute to the existing literature, but to demonstrate the perceptions of market conditions that are consistent with those documented in other areas of the literature in the creative industries. However, where this chapter does make a contribution is in its demonstration of the differing articulations of ‘choice’ when developers are describing their motivations towards becoming self-employed. It will be seen that in an environment where work is insecure and creativity is limited, developers remain optimistic, focusing upon notions of freedom, opportunity and their ability to be ‘masters of their own destiny’. However, interpretations of freedom and the autonomy of developers to choose self-employment can be challenged. In the face of inhospitable market conditions, it will be seen that self-employment is the developers only way of achieving more secure and self-actualising work, and it is suggested that developers are in some respects ‘forced’ into involuntary self-employment.

5.2 Environmental Conditions

5.2.1 Digital distribution
Political initiatives, such as the Blueprint for Technology (Department for Business, Innovation and Skills, 2010) have combined with policy think tanks and media rhetoric to celebrate the wealth of
opportunity that technological innovations can bring to individuals. Digital gaming is placed at the heart of this debate as technology is seen as a ‘driver of innovation’ (Nesta, 2008). Innovations in technology have not just altered how products are created and delivered but they have also been credited as a key influence in the disruption of traditional value chain relationships by offering firms and independent developers the ability to self-publish (Parker et al, 2014). This section examines the perceptions of digital innovations and aims to understand how these have influenced the working practices of developers.

The introduction of emergent technologies represented a major change in the way companies operated (Parker et al, 2014). Traditional value chains relied on the publisher to fund, distribute and market products. Intermediaries thus had a significant influence on the development process. However, the emergence of platforms such as Apple’s iOS development system brought new opportunities for firms.

“Apple came along and everything started to change. They launched their app store, which didn’t work like the carrier decks, they don’t do marketing for you, it’s a much harsher environment, everybody then saw these opportunities to rush to different platforms as a way of being free of the carriers because, “Aren’t the carriers bad to us and we’ll go speak to Apple because Apple are nice and Apple like the development”. Jim, Chief operating officer, Manchester

This respondent refers to the ‘carrier decks’ as a term for the publisher who acted as the distributor moving the product from the development firm to the customer. However, the arrival of development platforms such as Apple’s iOS system enabled the development of games without the need for the traditional publisher, giving companies more control and freedom in terms of product development as the influence of publishers decreased. This disruption of power relations in the sector is consistent with the literature as innovations in development platforms have changed the relationships between members of the value chain, reducing the need for intermediaries and making it easier for firms to develop and distribute their own products (Parker et al, 2014; Bergvall-Kareborn and Howcroft, 2013). The key point here is that the emergence of new technologies removed firms from the influence of the publisher which led developers to perceive that they had more control over their product.

The perception of freedom that digital platforms brought was also cited in the context of third party development. Increasing accessibility to digital technologies was seen as a vehicle for third party developers to achieve creative control over their product.
“it’s a good situation that we’re in now, especially for indies, you’ve got steam on the PC, which is very easy to work with they get you out to hundreds of millions of users on their service and you have IOS and you’ve got android which are just massive platforms now, they’ve got such low thresholds to get into, I think IOS you only have to pay the sixty dollars/60 pounds for the license then you are free to do what you want”. Jay, Graduate developer, Chester

In Jay’s view, digital innovations were seen to increase freedom and autonomy for third party developers. The accessibility to new platforms and the open access to ‘millions’ of users gave this developer an optimistic outlook which was consistent with the views of many other developers in the sector. However, the foundations that this optimism is built on can be challenged by the accounts of software development that highlight an alternative view as Goggin (2009) suggests that the rules set by digital platforms such as Google and Apple mean that there is not as much freedom as these developers imply. Goggin’s view suggests that the optimistic outlook that these developers describe can be contrasted with the accounts of limited freedom.

Unappealing market conditions were contrasted with a ‘myth of success’ amongst developers in the sector.

“You could make a PC game but the chances were you weren’t going to make a hell of a lot of money off it and then mobiles came along and it’s much more accessible, you could make it, whack it out there and you could have millions and millions of people download your game and you could make enough money to live off. A change in market really”. Ross, Flash developer, Manchester

Ross highlights that emergent technologies that have encouraged mobile development have given developers the opportunity to gain increased financial rewards. This notion of success has encouraged developers to see third party development as a viable alternative to full time employment, particularly when combined with the perception of increased creativity. Aside from reflecting the media and political rhetoric highlighted in the introduction, this serves to verify the literature that suggests a ‘myth of success’ in the creative sector where individuals feel that they can become part of the next wave of successful technology entrepreneurs (Hesmondhalgh and Banks, 2009).

However, some developers were more reserved when discussing the opportunities that the new development and distribution platforms offered citing an oversaturation of the market, which in turn highlighted an alternative view to the accounts of vast financial reward and mobile development.
"The realities though are there’s so much content out there that once you are live, it’s hard to get your game noticed, incredibly hard. There were some early successes, obviously most notably Angry Birds and like the Doodle Jump games have done phenomenally well for their developer. So those early successes I think have kind of given people the belief that they can publish and they can do well”. Jim, Chief operating officer, Manchester

What we see here is an alternative view that contrasts with the earlier accounts suggesting that success was easier to come by due to the increasing accessibility to digital platforms. This developer acknowledges the widespread belief in the ‘myth of success’ born from success stories such as Angry Birds and Doodle Jump but warns that this differs from the reality as increased competition has resulted in an oversaturated market place. This correlates with the findings of Bergvall-Kareborn and Howcroft (2013) and Parker et al, (2014) and their illustration of heavily saturated market conditions in the software sector as a result of the perceived lowering of barriers to entry. Furthermore, Bergvall-Kareborn and Howcroft (2013:15) suggest that the ‘myth of success’ is vastly overstated as the changing power relations now means that the burden of cost for a product lies with the developer instead of the publisher. This evidence brings more weight to the argument surrounding the challenge of achieving success that emerges from technological innovations in the sector. Although some developers cite the financial rewards available to them through independent development, an oversaturated market place and the burden of cost illustrates differences between the rhetoric and reality.

The purpose of this section was to examine developers’ perceptions regarding technological innovations. Developers understood that digital distribution represented a major change of power relations in the sector. This gave development firms the opportunity to become more independent from the interference of publishers and gain more freedom in their own production. Increasing accessibility to digital platforms also meant that third party developers perceived they could wrest control over their own production and operate in a less restrictive environment. Furthermore, influences from media and political rhetoric, led some developers to perpetuate the belief that technological innovations will deliver increased financial opportunity. However, fresh challenges emerging within the sector have been noted by Goggin (2009) and Bergvall-Kareborn and Howcroft (2013). Goggin (2009) suggests that notions of freedom and autonomy are unrealistic and that the restrictive rules enforced by digital platforms have not been sufficiently taken into account whereas Bergvall-Kareborn and Howcroft (2013) question the opportunity for success cited by some developers. The over saturation of the market place caused by increased competition and the burden
of cost leaving third party developers responsible for the funding of a product (rather than the publisher) suggests a reality divorced from common perceptions. In short, developers were naively optimistic when discussing the influence of technological innovations on their future working practices with freedom, autonomy and opportunity cited as reasons for their optimism. However, a careful assessment of the data corresponds with literature pointing to an experience for developers which is divorced from common perceptions.

5.2.2 The Regional Labour Market

The digital games sector in the North West of England, characterised as a creative cluster of digital game development (Johns, 2006), has undergone some major changes. These have influenced its constitution since the mid to late 2000’s (Nesta, 2010). In the mid 2000’s several large studios operated in the region such as Sony, Bizarre Creations and THQ. They employed a large core workforce (Phillips et al, 2009). However, macro-economic factors have resulted in companies closing or slimming down and this has led to a local sector dominated by a few large firms and a larger number of SME’s (Nesta, 2010). This has resulted in unstable employment conditions for the less established developers and has led to an increase in entrepreneurial activity. The following section will chart these developments from the perspective of managers, developers and recruitment consultants working in the sector.

Despite the United Kingdom being cited as a creative cluster for digital games development (Johns, 2006) and the north west of England housing a number of large development studios (Nesta, 2010) senior managers noted some key macro-economic factors influencing employment.

“Right now you’ve got the Canadians pushing very hard in game development, Ireland’s made a big statement, it wants to be a Digital game development hub, you’ve got tax breaks coming in from France before you even consider low cost locations like India, East Europe, Russia.” Jim, Chief operating officer, Manchester

This quotation highlights the view that tax cuts by governments and cheap labour in low cost locations have offered firms financial incentives to move their production out of the area. This has resulted in the United Kingdom falling behind other geographical locations as an attractive option for digital game development. This, in turn, has contributed to already increasingly insecure employment conditions as large firms who vertically integrated in the late 2000’s have slimmed down or closed. One developer explained how the acquisition of smaller firms had affected the sector.

“I think the real horror story from gaming comes from the publishers, shutting down companies. The
acquisitions are very bad for it at the moment. They’re putting the hammer down”. Sven, Full time developer, Wilmslow

The use of the words ‘horror story’ reflects the impact of acquisitions on developers in the local sector. Sven highlighted that smaller firms were acquired by large firms, who then moved production out of the area thus exacerbating the challenging conditions for developers. Other developers reflected on the impact of this on individuals working in the sector.

“Well I suppose there has been a lot of breaks up of companies like Bizarre Creations was shut down and it has a lot of people thrown out of their jobs, Sony Liverpool also had a lot of cut jobs, just a lot of that in the area with companies”. Simon, Freelancer and organiser of local networking group, Chester

This quotation clearly shows that the closure of local firms has resulted in a significant number of redundancies. The impact of this on less experienced developers was a labour market that is ‘very competitive’ (Sven, Full time developer Wilmslow). This was confirmed by other less established developers, one respondent noted that many aspiring developers in her position found it difficult to obtain work. At times, workers were obliged to take jobs outside the sector in to make a living.

“I mean out of my class there were about 15 of us graduated and there’re only three people that I know that have got jobs so far in games....A few of us have got jobs but not games jobs....... I think it’s hard to get into and you’ve got to be willing to risk, I suppose, job security for doing something you actually enjoy”. Gill, Full time developer, Bolton

This developer used her classmates as an example to emphasise the challenging labour market conditions for new entrants to the sector. She felt that this was something that less established developers were prepared for, given her perception that the industry was difficult to enter for developers with limited experience and the self-actualising nature of the work. This account is consistent with other areas of the creative industries where ‘getting in’ is a challenge for all but ‘star’ developers (Randle and Culkin, 2009; McKinley and Smith, 2009). Nonetheless, risky labour market conditions are mitigated by a labour of love with the work (Friedson, 1990) or the opportunity to engage in self-actualising work (Hesmondhalgh and Baker, 2010). This evidence suggests that less established developers felt that firms moving out of the area heavily impacted on their employability as the labour market became more challenging for lower level jobs.
Alternative accounts highlighted a common dualism within the labour market where more experienced individuals didn’t experience the same difficulty in the labour market. A senior figure in the sector used his friend to present a contrasting description of some developer’s experiences.

“I think when you are a good experienced game developer you will be able to find work in most cases and the really bright guys they work all over the world. A friend of mine Zeb he works with a French team for Yonger, he does some stuff for one of the big Korean hard core guys and then with a couple of friends, two in London two up here in the north, is working freelance and he does all that from somewhere near Chester………..most of those guys see is that the insecurity in terms of job is normally perceived rather than real for them, and once they’ve managed to step over that they are actually okay and then start gaining benefits which is high flexibility”. Victor, Owner of SME and head of games for a tele communications firm, Macclesfield

The example of the ‘star’ developer that Victor described is in stark contrast to the experiences of the less established developers. Although the respondent described Zeb’s case as exceptional, he is encouraged because this sector allows highly skilled individuals to benefits from flexible work. This was echoed by a recruitment consultant who also suggested the labour market was kinder to developers with a certain skill set.

“I would say the gaming industry is hard to get into for certain positions, so I mean artists and designers, designers tend to be harder to get into because everybody wants to be a game designer. And a lot of people try and get in there and they work their way to get into game designer positions. So I’d say it’d be harder for games designers…….. I think with programmers there’s a skill shortage……. I think the really good programmers on the mobile front are where the real skill shortage is”. Sabi, Recruitment consultant, Wilmslow

The evidence seems to suggest that work in digital games is insecure for some, but easier for others. This evidence supports Warhurst et al’s (2007) analysis of software work where a hierarchical division of labour is apparent as highly skilled individuals enjoy enviable terms and conditions and the unemployed are left with limited employment opportunities.

5.2.3 Summary

This section offers some explanation of the changing constitution of the regional labour market. Senior management cited tax breaks and low cost labour as economic justifications for large firms to move production outside of the UK. This in turn has contributed to the closure or slimming down of a number studios in the North West leaving an unstable and competitive environment for less
established developers. This has exacerbated the already challenging circumstances for some developers as hierarchical divisions of labour apparent in the software sector (Warhurst et al, 2007) appear to be prevalent in the digital games sector where jobs are available, but only for highly skilled, fully formed and suitably experienced employees. The accounts described here in some ways reflect the work of Marks and Huzzard (2010) and their analysis of the Scottish ICT sector as several large companies moving production spawned a number of smaller companies. However, as Marks and Huzzard (2010) point out, the impact of this is damaging the skills base as SME’s rarely have the financial resources to train employees in the same way as large organisations.

5.3 Managerial Strategies to Combat Risk

The rapid growth of the sector has led to unstable market conditions and influenced working practices as firms seek to minimise risk. Consistent with other areas of the creative sector (Caves, 2000; Hesmondhalgh, 2012), senior management noted that production in games became ‘much less predictable’ due to an oversaturation of games in the market. Furthermore, the necessity to finance a game ‘up front’ has led to firms becoming increasingly risk averse. The following section will focus on firm’s strategies to minimise risk and illustrate how this impacts on the developers in the digital games sector.

5.3.1 A Market Philosophy

One strategy digital games firms have adopted when producing games is to follow a market philosophy that minimises risk which corresponds with other areas of the creative industries that are driven by ‘the market’ and consumer demand (McRobbie, 2002). The purpose of this section is to show how firms have followed a market philosophy and examine the impact of this on developers in the sector.

Instead of solely relying on the creativity, artistic imperatives or technical skill, firms follow market trends to limit risk. This involves looking at the competitor’s offerings and consumer demand to identify popular genres and gaps in the market.

“You tend to pick genres where you know there’s a market, where you know that you can find a consumer. I think that kind of leads to a large supply of puzzle games and a large supply of word games or action, arcade but they’re safer bets”. Jim, Chief operating officer, Manchester

Jim’s account highlights that production is governed by ‘the market’ and the need for firms to differentiate themselves from the competition. This has resulted in making games in ‘genres’ deemed as ‘safer bets’ by development companies. The importance of a clear understanding of the customer’s
needs was confirmed by Jim in a later passage of conversation when he explained that producing a successful game was a rational process of working out the needs of the customer,

“Right now the market’s quite harsh. Everything’s got to pay its way, everything’s kind of focused towards low risk……. if you want to survive, you’ve got to stick to your head because your heart can take you down a horrible avenue of mistakes…….So even before you lay down your first line of code, you’ve got your pad in front of you and sketched out what your game might look like, you need to work out who your consumer is. So who, when, where, how, why, is somebody going to want to buy this game and if you can’t answer those questions then you’re going to struggle because you might not have a game, you just might have it mechanically, you might have a toy, which are all fine, then you’ve got to adjust what your thoughts are in terms of how you’re going to monetise it”. Jim, Chief operating officer, Manchester

This quote reinforces the importance of commercial imperatives. Jim highlights that it is not the technical or the creative imperatives that determine the success of a product, it is how the product can be ‘monetised’; if it couldn’t be monetised it was just ‘a toy’. These strategies demonstrate the relevance of the accounts of cultural production where genres are used to minimise risk and products are made to meet commercial rather than creative imperatives (Lampel et al, 2000, Tschang, 2007).

Another developer highlighted that the use of franchises was another common strategy used by games firms to minimise risk.

“Once there is a franchise it’s deemed safer to stay with that rather than chuck that away and try something new and that goes for film as well, there’s that many remakes and stuff like that just because you can springboard off the original and especially with a game if it’s a similar one you’ve already got 80% of the code for the next one so the development time should be a lot shorter and it should be a lot less risky” Ali, Independent developer, Cheshire

This quotation suggests that Ali used the franchising of games to minimise the risk due to these being seen as ‘safe bets’ both operationally and in terms of sales as a firm could reap the benefits of a faster development process and customer loyalty for a game which had already accrued. This compares with the use of strategies associated with dealing with risk in other areas of the creative sector such as publishing, film and television (Hesmondhalgh, 2012).

Whilst senior managers have suggested that the use of these strategies enhance the chances of commercial success, evidence from the literature suggests that this leads to tensions surrounding the
freedom and autonomy of creative workers, as individuals are bound by employers to tailor their creativity to pre-given formats (Banks, 2010). Furthermore, given the artistic and emotive nature of creative work (Caves, 2000) following commercial priorities can often lead to conflicting imperatives between creative workers and commercial partners (Lampel et al, 2000) leading to a ‘conflict laden’ environment (Reid and Kambayya, 2009:1075).

5.3.2 Controlling the Project

Senior managers were keen to point out that digital games production was a commercially minded, tightly controlled project management process where each area of the value chain was monitored in order to manage time and cost. This is reflective of the emerging literature that emphasises the project nature of creative work (Peuter and Dyer-Witherford, 2005; Warhurst and Thompson, 2006; Hodgson and Briand, 2013). However, project management techniques used by digital games firms have led to the perception of a further erosion of creativity and intensified labour as the use of ‘crunch’ meant that developers had to work long hours in order to meet the demands of a project. One respondent, a former member of a senior management team in a large development firm, explained how projects were planned,

“They will have had an exact idea of what they’re going to be, and they’ve story boarded it and written the whole thing down on paper and they’ve executed a plan……… you’ll have a fairly detailed spec of how these things should go, and you’ve got to stick to it”. Alan, Independent developer, Manchester

Project management tools were used to ensure that the production of the game would meet required time scales. This was a response to the challenge of ensuring a game was creatively and technically strong but also followed the disciplined plan set out at the start of the project.

“We apply usually this steam, water, ice method whereby if a project was in steam mode you could literally change anything because it has no impact, if it’s in water mode it starts moving a little harder, if it’s in ice mode if it is not absolutely vital you will not change it. We might carry it forward for the next situation but we will not change anymore because then you would risk release time.” Victor, Owner of SME and head of games for a tele communications firm, Macclesfield

This quote suggests managers employed tight and loose control, loose control at the start of a project followed by more disciplined control towards the end of the project in order to meet the release date. The purpose of this method was to give some autonomy to developers in order to encourage creativity at the start of a project. Whilst this technique gives some autonomy to creative workers
(Hesmondhalgh, 2012) and enhances worker initiative (Peters, 1992; Roy and Audet, 2003) it is limited to the start of a project.

The project management techniques used in games also relied on an intense period of work at the end of the project. Respondents discussed the intensive nature of project work and showed that long hours were relatively normal.

“On these projects where the budgets are...they run into millions now, where people have signed up and they’ve got to hit Christmas; they’ve absolutely got to hit Christmas. I know a lad who worked six months straight, seven days a week, didn’t have one single day off. But he was a bit younger than us at the time, so he’d have been in his mid-20s, and I remember being like that”. Alan, Independent developer, Manchester

Alan demonstrates the exploitative nature of project work within the sector as firms try to meet deadlines at the end of the project. This follows Peuter Dyer-Witherford (2005) and Peticca-Harris et al’s, (2015) claim that ‘crunch’ is relevant to individuals in the sector. A senior manager cited the pressure that they were under to meet the release date, fulfil promises made with other areas of the value chain and ensure the commercial success of the game.

“it is a little bit of the nature of the game, you know once a game is out there and you start striking marketing deals etc. you have a shipping date and you have to bloody ship because otherwise you risk the overall commercial success of it.......In theory you should say “Okay it’s lines of code etc. and they don’t change and code behaves as code behaves” but in practice it’s like in theory a computer should never crash, in practice depending on manufacture they do fairly regularly or not. So it is probably to a very large extent unavoidable”. Victor, Owner of SME and head of games for a tele communications firm, Macclesfield

The accounts of Alan and Victor appear to be normalising the practice of ‘crunch’. Victor cites the ‘nature of the game’ and the unavoidable technical nature of software work when rationalising ‘crunch’. The outcome of this has left developers often working unregulated long working hours, thus enduring a ruthless work regime due to the nature of project work in the sector.

These quotations suggest that production in digital game development is controlled under a tight project management process. Whilst project management techniques are not uncommon in the creative sectors (Peuter and Dyer-Witherford, 2005; Warhurst and Thompson, 2006; Hodgson and Briand, 2013), the use of project management strategies further exacerbates tensions surrounding
creativity and control. Furthermore, the outcome of managerial strategies to control the project rely on ‘normalised’ ‘crunch’ (Peuter and Dyer-Witherford, 2005; Petica-Harris et al, 2015) leaving developers having to work long hours in order to meet the demands of the project.

5.3.3 More fluid and flexible work?

The tightly controlled process in digital games development extended to a workforce planning strategy that used peripheral employment contracts in response to erratic market conditions. This was accepted by developers and seen as representative of the working culture in the sector.

It was acknowledged that the lack of predictability in the market place dictated that firms used an increasing number of fixed term contracts to stay lean amid volatile market conditions.

“We’re very lean, very light, we’re about 53 people but we operate globally ………we tend to operate more now on a outsource model, so where ever possible we try not to take on resource on a permanent basis because it’s too volatile …So what we tend to do now more is employ people for fixed term contracts for specific items of work and try and keep our permanent head count down to a core, a bit like the onion staffing model; as you grow you can add more layers, if you shrink you can lose those layers as and when a project comes to an end”. Jim, Chief operating officer, Manchester

Although Jim acknowledges some use of permanent labour, he highlights his company’s use of peripheral employment contracts. This respondent was acutely aware that permanent employees were a potential drain on resources therefore in order to be more ‘flexible’ his firm took on labour as and when they needed it. It seems this development firm adopts, in some respects Atkinson’s (1985) flexible firm model resulting in the use of a core and peripheral workforce as a buffer amid uncertain circumstances. Broadly, the rationale provided by Jim to move to a post-Fordist method of production follows that cited in literature as the firms motivation for the use of outsourced labour was a wish to stay supple amid volatile market conditions (Piore and Sabel, 1984) and reap the numerical and financial flexibility offered by the flexible firm model (Atkinson, 1984). The outcome of this is the use of fixed term contracts resulting in increasing instability for developers.

The instability in the sector due to workforce strategies planning was positively commented on by a senior figure in the sector when he described digital games as a pioneer for a new type of work.

“I think the games industry is probably amongst the first who are experiencing this shift to a more flexible and more fluid, but also less stable work employment or rather engagement cycles I suppose”. Victor, Owner of SME and head of games for a tele communications firm, Macclesfield
This respondent contrasted the positive ideas and aspirations of flexibility and fluidity with the increased instability which this engendered for individuals in the sector. The flexibility and fluidity that Victor highlights can be associated with optimistic portrayals of ‘protean careers’ described by DeFillippi and Arthur (1996) and Handy (1990). However, in using the term ‘employment cycles’ this respondent also illustrates the increasingly fragmented nature of employment in the sector associating the digital games sector with the negative aspects of contemporary careers emphasised by Marchington et al, (2005) and Sennett (1998). This can be partly explained by the context of regional labour market conditions characterised by instability and a lack of opportunity for some. Whilst this evidence, in some ways, demonstrates how the digital games sector has embraced the post-Fordist methods of production it also illustrates the impact of this on individuals in the sector and acknowledges that new ways of working have led to further instability.

Changes to workforce planning strategies were met with acceptance from developers in the sector. An experienced game developer understood that due to project work, fixed patterns of employment were becoming the norm and represented a culture change within the sector.

“More and more companies are now using contractors for 6 months and there are enough of them still floating around to just do it. Fighter are just doing that recently, loads of my friends have got contracts up there that are just finishing off now. It’s more acceptable now to just hire people when you need them and not when you don’t. I guess it is the same principle to getting rid of a good load of staff at the end of a project when you don’t need them, not have them to begin with. Just get what you need when you need it and then don’t. I guess it’s cheaper that way”. Ali, Independent developer, Cheshire

This developer used the example of ‘Fighter’, a studio that his friends worked for, to illustrate his attitude to employment in the sector. This corresponds with an attitude to employment that is common to a number of occupations within the cultural industries as uncertainty and instability is met with broad acceptance (Hesmondhalgh and Baker, 2010). The feelings of Ali were broadly representative of many respondents who saw the use of contract work as an undesirable outcome of the way companies are resourcing their studios. This amounted to an acceptance of the working culture of the sector and something that they were expected to adapt to in order to gain employment.

This section has illustrated how commercial uncertainty influences individuals employment relationship with firms resulting in increased insecurity and precarity for individuals in the sector. This is not meant to imply that the use of permanent employees is no longer a dominant feature of
employment but demonstrates increasing use of ‘flexible’ workers in the form of freelancers or contractors. More broadly, this evidence contrasts with cynicism regarding the pace and nature of the changes to employment relationships (Hirst and Zeitlin, 1991; Warhurst and Thompson, 1998; Thompson, 2003). It supports those have noted the influence of changes to production on employment relationships (Piore and Sabel, 1984). The outcome for developers is the increasing fragmentation of work and the resulting insecurity, yet this is met with acceptance from developers as they acknowledge that the onus of responsibility is on the developers themselves and their willingness to adapt to changing circumstances.

5.3.4 Summary
This section has illustrated a number of strategies that development firms employ in order to manage risk amid volatile labour market conditions, which exacerbates challenging conditions for developers. To minimise risk and enhance the predictability of demand, firms have opted to follow the market when producing games and formatted their products using popular genres and serials. However, evidence from the empirical work supports the literature which suggests that these strategies limit the autonomy of developers and result in a conflict between commercial and artistic imperatives as individuals limit their creativity to pre-given formats (Lampel et al, 2000; Reid and Karambayya, 2009; Banks, 2010). Another means of managing risk was to use a tightly controlled project management process when producing games. Essentially this meant subjecting developers to loose then tight control over their own production and relying on intense periods of work known as ‘crunch’ towards the end of a project. This exposed developers to undesirable conditions that further limit creativity and autonomy and subject them to a ruthless work regime of unregulated long hours. Finally, workforce planning strategies that resemble Atkinson’s (1984) ‘flexible firm model’ have exacerbated already challenging labour market conditions. Developers accepted this as the working culture of the sector and were prepared to adapt to this in order to gain employment. However, this contributes to precarious labour market conditions that characterises the sector and further limits developers’ opportunity to gain stable employment.

5.4 Becoming self-employed - Masters of their own destiny?
Changing market conditions and technological innovations have influenced the increasing uptake of entrepreneurial and enterprising activity. Moreover, the changing constitution of firms and the increased accessibility to development platforms have helped to make self-employment more viable. This section will examine the extent challenging environmental conditions, outlined previously in this
chapter, have influenced developers to turn to self-employment as developers articulate ‘choice’ in a number of different ways.

The managerial strategies outlined earlier have illustrated that development firms have strict controls over production. The rejection of managerial control was cited as a primary reason for developers to turn to self-employment as they felt constrained by the limited autonomy and creative freedom that employment in development firms offered. This developer cited the primary reason for starting his own business was the desire to become the ‘master of his own destiny’.

“Being the master of your own destiny and stuff is definitely one of the reasons why we...not even being independent, why a lot of us actually moved back to mobile a few years ago....I remember my mate who was working with...he just worked on a Project Racing and it was a number one Christmas hit on Xbox, which had just launched that year. Fantastic, and he made a huge bonus off of it. I'm like alright...and he was only there for a few months at the end of the project. Great. You've got your name on this great triple A title. 'So what did you do on it?' He goes, 'you know the bit at the start where it goes three, two, one? Yeah, I wrote that.' On this huge, gigantic game he polished one nut. Whereas that year each one of our team had probably written three games on mobile, crappy little small games, but going back to the old SNES complexity, when you'd write a game from start to finish in three or four months. But they wrote the whole thing... That was hugely satisfying for my guys to be able to sit and write an entire game from start to finish; be responsible for everything”. Alan, Independent developer, Manchester

This passage highlights that alienation and detachment from the product were consequences of management control for this developer and resulted in a loss of satisfaction in his work. By setting up a small company he perceived he would be given more control and creative autonomy. In Alan’s case he felt control, autonomy and responsibility were aspects of his work that he valued more highly than financial remuneration and claims these reasons led him to turn to self-employment.

In agreement with Alan, another respondent also welcomed becoming self-employed as it gave him the ability to make his own decisions, without having to deal with the constraints managers enforced due to strict project management.

“Now decisions are really fast, I don’t need to get anything approved and we can change scope in a second whereas doing the big games, the triple a stuff if its already in production you really need to be speaking to the marketing teams worldwide to make sure everyone is happy with what you thinking and then if you want to change direction you have to have a good reason for it whereas in a small team if everyone feels it would be better then it is done and that’s it”. Ali, Independent developer, Cheshire
Ali’s decision to turn to self-employment, he claims, arose partly from the frustration of dealing with value chain relationships and the tight control of projects which constrained his creative imperatives. Much like Alan this was a rejection of the control imposed by managers. This is in keeping with the literature in the creative industries that highlights conflict between creative and managerial imperatives (Lampel et al, 2000; Reid and Karambayya, 2009; Banks, 2010). As a consequence of their frustration these developers ‘chose’ self-employment to wrest more creative control over their work. Ali and Alan’s motivation to turn to self-employment to achieve increased freedom and autonomy reflects a wealth of literature where the promise of freedom and control (Cohen and Mallon, 1999), the logic of autonomy (Bogenhold and Stabler, 1991) and a quest for self-realisation (Elchardus and Smits, 2008) encourages individuals to consider self-employment.

Ali also cited his displeasure with working with unmotivated developers and the ‘unavoidable’ nature of work in projects that resulted in ‘crunch’ citing these as alternative reasons to turn to self-employment.

“Instead of going back into triple A I was adamant that I wanted to try and do something different. I really believe that we can develop games in a less wasteful way and a fairer way where people wanna work together rather than have to, because a lot of the times in big teams some people who will wanna be there and some people who kinda don’t……… So the best way to do that for me was to find people to collaborate and work on some small projects to begin with to test the relationships, make some money so the people that I had done stuff with had released would have made some money and said “I’ve made some money and that was OK. We didn’t crunch, no one fell out, what’s next, let’s do another one” Ali, Independent developer, Cheshire

When highlighting his resistance with the normalisation of ‘crunch’ and the way firms were operating Ali felt he could achieve better conditions for himself and those around him through choosing self-employment. However, there is a theme of liberation from restrictive or exploitative working conditions that emerges in the accounts from both these developers when they articulate their ‘choice’ to turn to self-employment. This view corresponds closely with Kautonen et al’s (2010) notion of involuntary self-employment where individuals turn to self-employment due to inhospitable environmental conditions. Although these developers exercise ‘choice’, nevertheless self-employment is the route towards getting the working conditions they desire.

Following the theme of independence from organisational controls presented by Ali and Alan, other developers cited that the accessibility of new development platforms gave them a means of freeing
themselves from value chain relationships. As has been seen earlier in this chapter, developers felt they could gain increased freedom and autonomy by releasing their games independently from publishers on digital platforms.

“It’s definitely the access and Steam and the App Store is the equivalent to a publisher, there isn’t a middleman forcing themselves in a way between you and your customer. So it’s allowing self-publishing and being able to self-publish was definitely a big factor”. Pad, Independent developer, Manchester.

This quotation captures the sense of autonomy this developer feels as he didn’t have to deal with publishers. Pad points out that publishers were a barrier between him and a customer and cited the removal of publishers as major reason for becoming an independent developer. Another developer, whilst acknowledging the removal of publishers as an important factor cited the ease and opportunity to make money reflecting the optimism around digital innovations presented earlier in this chapter.

“I believe it’s a very good time to start your own business with platforms like Steam and IOS and stuff like that. It’s so easy to just be able to make a game, post it on there and start making money. There's no need for publishers and all of that. If you’re making an AAA budget game, obviously you would need a publisher, but I think for indies and just making games I think it’s a very good time”. Jack, Independent developer, Manchester.

Whilst both these quotes highlight the lowering of barriers to entry as a reason for becoming self-employed. The primary reason Pad focused on was liberating himself from the traditional value chain relationships whereas Jack’s main motivation was reward. Although both developers, to varying degrees, promote entrepreneurial discourse by recognising reduced start-up costs lowered barriers to entry enabling independent development (Scase and Goffee, 1989; Down, 2010,) the recurring theme in this section is the rejection of traditional work arrangements. Developers saw technology as a vehicle to remove themselves from conventional value chain relationships suggesting more evidence to support the claim that developers are turning to self-employment in order to escape challenging and precarious conditions. However, what we see here are articulations that reflect optimistic portrayals of protean careers as self-employment is tempered by the belief developers can enjoy a ‘boundaryless career’ replete with flexibility and high reward (Baruch, 2001; Baldry et al, 2007; Hesmondhalgh and Baker, 2010).

Surprisingly, developers did not directly cite challenging regional labour market conditions as their reason to become self-employed. Nor did developers choose to highlight the use of outsourced labour
and diverse employment contracts that have stimulated the growth of self-employed workers in other areas of the creative industries (Ursell, 2000; Murdoch, 2003; Barley and Kunda, 2004; Grabher and Ibert, 2006; Baldry et al, 2007; Randle and Culkin, 2009; Grugulis and Stoyanova, 2010; Kennedy, 2010). However, developers did notice that the emergence of a number of independent studios occurred alongside the breakdown of the regional labour market.

“A lot of people set up their own independents especially from Bizarre Creations such as Cowrocket and Straight Games, there was another one, M15 games, it turns out quite a lot have built up around these companies falling apart”. Simon, Freelancer and organiser of local networking group, Chester

In agreement with Simon (above), a sector observer suggested that developers took a pragmatic approach to unstable labour market conditions by looking for alternative means of employment which meant turning to enterprise and self-employment.

“There’s only a finite number of jobs within the industry, and if one or two big developers have suddenly gone pop where do all those people go? Where are they absorbed? So it makes sense that they start their own”. Kevin, Games Lecturer, Manchester

These quotations suggest that threats of redundancy and unemployment have contributed towards motivating developers to turn to self-employment. This supports views expressed in the literature that suggest that self-employment is often a response to labour market insecurities (Bogenhold and Stabler, 1991; Curran and Blackburn, 1991; McKeown, 2005). However, Kevin’s observation implies that labour market forces have left some with little choice but to become self-employed. This suggests that rather than making a calculated decision, some developers have effectively been ‘forced’ into self-employment due to inhospitable environmental conditions. Again, this corresponds with the theory of ‘involuntary self-employment’ (Kautonen et al, 2010) as self-employment was perceived as a better option with the potential to provide secure work.

The relationship between labour market conditions and self-employment was reinforced by another respondent who explained that developers turned to self-employment in search of more secure and stable work.

“Because of all this boom and bust for the big dev teams, you get all these guys who are setting up on their own small businesses”. Alan, Independent developer, Manchester

This quotation highlights that self-employment for some developers arises from the wish to escape the unstable nature of the sector. This account is in stark contrast to entrepreneurial activity
optimistically portrayed as ‘boundaryless or protean careers’ (Rosenbaum and Miller, 1996; DeFillippi and Arthur, 1996) being initiated by free choice in a secure labour markets. Instead entrepreneurial activity appears to be a response based on contingency, relating to Coulsen’s (2012) description of ‘accidental entrepreneurs’. The fieldwork presented here suggests developers did not set out to start their own business, rather, self-employment appears to be a reaction to escape insecure labour market conditions. What we can draw from this is that developers see self-employment as their best option to secure stable and self-actualising work amid challenging market and work conditions. However, by linking this back to first part of this chapter where developers operate in heavily saturated markets and strong competitive forces, we can be sceptical with regard to whether this is the case. In order to investigate this it is necessary to find out more about developers lived experiences and nature of work for self-employed workers which will be investigated in the next chapter.

To summarise, in the context of changing market conditions this section has illustrated differing ways developers have articulated choice when becoming self-employed. Corresponding with the literature from Lampel et al, (2000), Reid and Karambayya, (2009) and Banks, (2010) developers cited how managerial controls and their positioning within value chains constrained their creativity and resulted in challenging work conditions. In order to liberate themselves the respondents felt that their ‘best’ option was to become independent developers. Despite recognising that increased accessibility to digital development platforms made independent development more viable developers cited the liberation from value chain relationships as the most important feature when they articulated their choice to become self-employed. Surprisingly, developers did not cite challenging labour market conditions resulting from changes to the regional labour market and the outsourcing strategy of firms as a reason for their own self-employment. However, sector observers and experienced developers noted the increase of small development teams as a consequence of challenging labour market conditions. Overall it appears that inhospitable conditions have led some developers to become at best ‘accidental entrepreneurs’ (Coulsen, 2012) or at worst ‘forced’ into ‘involuntary’ self-employment (Kautonen, 2010) as enterprise is perceived to be the only way developers can achieve security and self-actualising work. However, developers have formed narratives reinforced by notions of increased freedom, liberation and reward that reflect entrepreneurial discourse (Bogenhold and Stabler, 1991; Rosenbaum and Miller, 1996; DeFillippi and Arthur, 1996; Elchardus and Smits, 2008; Cohen and Mallon, 1999). This corresponds with McRobbie’s (2002:101) assertion that creative work is often mediated by notions of mobility and success. However, the foundations for this optimism must be questioned. The first part of this chapter explored views from empirical data and literature that suggests that digital platforms restrict developers production (Goggin, 2009) and that actually
developers operate in heavily saturated markets (Bergvall-Kareborn and Howcroft 2013). It appears that developers base their decisions on a false promise of freedom, liberation and their perception of being able to be ‘masters of their own destiny’ as market forces and media and political rhetoric combine to suggest to these developers that they can achieve better conditions setting up on their own. The accounts of this cohort of developers’ experiences of self-employment will be examined in the next chapter.

5.5 Conclusion
This chapter has sought to understand differing interpretations of changing market conditions as developers frame their decisions to become self-employed. By doing this we have found that dynamic innovations in technology have increased accessibility to digital platforms making self-employment a viable option for developers (Bergvall-Kareborn and Howcroft 2013). Furthermore, the changing constitutions of firms in the regional labour market, along with dualism in the labour market, have limited opportunities for less established developers to secure permanent work.

Managerial strategies to limit risk have combined with market forces to exacerbate challenging work conditions for developers. Large development firms, governed by a market philosophy and adhering to project management techniques, have created an environment offering limited creativity and poor work conditions for developers. Furthermore, workforce planning strategy, reflective of Atkinson’s flexible firm model (1984), has resulted in an increased use of peripheral employment, thereby increasing insecurity within the sector.

In the context of dynamic and unstable conditions developers have articulated varied reasons for turning towards self-employment. Amid challenging labour market conditions and inhospitable work conditions it appears that developers are left with little alternative other than ‘involuntary entrepreneurship’ (Kautonen et al, 2010) or ‘accidental entrepreneurship’ (Coulson, 2012). However, developers preferred to construct narratives of freedom and independence from traditional value chain relationships as a primary reason for becoming self-employed which is reinforced by perceptions of opportunity brought about by changes in digital distribution which is reflective of political and media discourse. It is clear that accounts of developers indicated that they perceived self-employment as a vehicle to secure and self-actualising work. However, some accounts in the empirical data follow the literature in suggesting that developers may be being guided by a false promise of liberating and self-actualising work. The next chapter will consider how this influences and shapes the lived experience of digital games developers by considering the impact of self-employment on developers’ lives.
6.0 The ‘Entreployee’ - The dark side to enterprise

6.1 Introduction
In the previous chapter it was explained how dynamic and unstable changing market conditions have resulted in developers turning to self-employment. However, rather than cite challenging market conditions as a reason for turning to self-employment developers preferred to construct narratives of independence, freedom and increased autonomy reinforced by the perception that wealth and success were just around the corner. The purpose of this chapter is to consider the impact of self-employment on developers’ working lives in light of their positive interpretations of this employment relationship.

The market conditions and changing structural factors highlighted in the previous chapter broadly followed the conditions discussed by Pongratz and Voß (2003) which they argued have resulted in a fundamental transformation of work. As a consequence of this Pongratz and Voß (2003) and latterly Pongratz (2008) conceptualised ‘the entreployee’ where an employee redefines their productive capacity within the workplace and the wider labour market. This chapter uses this conceptualisation centrally to illustrate how work in digital gaming can be characterised as increasingly entrepreneurial. The categories of self-control, self-commercialisation and self-rationalisation are used in order to understand the lived experiences of the respondents.

It reveals that in contrast to the perceptions of developers, entrepreneurialism in the digital games sector is characterised by conditions that erode freedom, independence and autonomy. Furthermore, the experiences of this cohort of developers reveals that developers are complicit in their own exploitation as working practices lead to long hours in order to enhance the chances of success. Developers willingly exploit their time, ideas and intellectual property in order to get ‘experience’ or gain exposure in the sector.

This chapter contributes to the literature on the digital gaming sector and to the specific focus on entrepreneurialism, which is largely absent. Also, it provides a critical assessment of the impact of entrepreneurialism and enterprise on individuals’ working lives by building on the research of Pongratz and Voß (2003).

6.2 Self-control
Pongratz and Voß’s (2003) views of self-control suggest that the ‘entreployee’ is in charge of the process of transforming their own potential into concrete performance. According to this concept the
individual must plan, control and monitor his or her own work activity. This section will highlight how decisions relating to bringing the product to market, managing income streams and organising work, both temporally and spatially emphasise the self-control that developers have over their working lives. However, when respondents were describing the elements of control they had on their lives it became apparent that themes such as free choice, autonomy and creativity were constrained by market discipline or by developers having to make choices out of necessity in order to sustain themselves in the sector.

6.2.1 Freedom in platforms, genres and pricing?
Self-control in independent game development involves developers making choices regarding the formation of the product. The independent developers interviewed reported a strong degree of planning and management of their own work content when choosing the type of product that they would develop. Typically, the creative industries have been referred to as a free, creative process where creative workers with a bohemian outlook and lifestyle have some degree of free choice in the kind of creative products they produce (Eikhof and Haunschild, 2006). However, in contrast to this scholars have highlighted that creative products, much like other commercial products, are governed by a market philosophy in order to align their product with the demands of marketplace (McRobbie, 1998; McGuigan, 2004). Some developers highlighted ideas of freedom and creativity in the conception of the product. Others judged this as a scientific process of a series of choices that needed to be made and the necessity to ensure the marketability of the product as well as the maintenance of free choice that they desired as an independent developer.

Primarily, the first decision that developers had to make was based on the choice of platform that their game was going to be developed on. The choice of platform on which to make and sell the game played heavily on a respondent’s mind as developers were obliged to manage the contrasting imperatives of commercial success and artistic vision.

“We formed... about a year ago, and our first six months up until maybe October time we were to-ing and fro-ing between what are the pros and cons of doing a game for the iPhone and the iPad, what were the pros and cons of doing an android based kind of game, all the pros and cons of trying to do a game for Xbox or PlayStation III, digital download”.

Bill, Independent developer, Manchester

The issues developers had to bear in mind when making these decisions revolved around a number of factors. The commercial viability of a project was often mediated with making a product that meets
their artistic, innovative and technical ambitions suggesting that developers faced similar challenges reconciling art and business as those in other areas of the creative sector (Lampel, 2000; Tschang, 2007). Also, consistent with other areas of the creative industries, the developer cited above highlighted that managing uncertainty and risk was an important factor which influenced his decisions (Townley et al, 2009). This suggests that the production for this developer was heavily influenced by market forces, rather than his own creative and technical ambitions.

Despite some developers describing the choice of platform as a thoughtful process compiling advantages and disadvantages of each platform, it became clear that their skillset determined the choice of platform. As many development kits restrict the platforms where a game could be released due to compatibility issues (for example the ‘Unreal Development Kit’ for production in PC games wouldn’t be compatible for the development of mobile games) many developers highlighted that their knowledge of software ultimately determined which platform they would use for development. A common response to the final decision regarding the choice of platform was that the members reverted to “using an engine that we knew really well” (Winnie, independent developer, Manchester) rather than developing on platforms which offered opportunities for innovation and creativity. Although some more experienced developers noted that they could alternate between platforms, this developer faced a choice to either learn new skills or to look to the development community in order to fill their skills gap.

“To start coding for iPhone we need to actually learn to code for iPhone or bringing someone on board who can already do it….. It basically depends if they’re willing to kind of profit share or whatever because we can afford a little bit to pay people upfront but not as much as we’d like to be able to.”

Winnie, independent developer, Manchester

This challenges developers’ perceptions of a logic of autonomy (Bogenhold and Stabler, 1991) and a promise of freedom and control (Cohen and Mallon, 1999) which was cited as a reason for turning to self-employment. Essentially, the selection of a platform was heavily dependent on existing knowledge and a skillset which represented a significant barrier in developing a game on a platform of their choice.

This highlights a darker side of self-employment for these developers which contrasts with optimistic portrayals of independent development. The lack of institutional support and time this developer had to engage in skills development reflects literature suggesting small enterprise and the challenge to engage with skills and knowledge development in the software sector (Barrett, 2005).
of this is that a lack of familiarity with different systems influences the choice of platform as the time taken to develop new skills would increase the time taken to bring a game to market.

Planning and monitoring work activities also obliges developers to make choices regarding the genre of the product. Rather than rely on previous experience when choosing a genre of a game developers discussed how technical innovation and creativity heavily influenced the type of game they would make. However, although technical innovation and creativity were points that were emphasised by developers it was clear that their decisions ultimately were dependent on market norms.

A number of developers suggested that they centred their decisions on innovation before thinking about the specific genre of the game. For example, the emergence of touchscreen technology was at the forefront of some of the developers’ minds when choosing the genre of game in order to keep up with current trends.

“As we experiment we play with it and it suggests itself to be a certain type, maybe this could be a jumping game or maybe it’s going to be a driving game and it goes in that direction…We don’t really look at the market, it’s probably not the smartest commercial approach…... I’m sure we’d make a lot more money if we were sensible enough to do that”. Pad, Independent developer, Manchester

This developer reported that the choice of genre of game was driven by making the game technically strong. In this case he highlighted his willingness to experiment to make the most of emerging technologies. This technology-driven approach was emphasised by a number of respondents as they wanted to make an innovative game rather than be led by the market. This followed a general theme. Developers made it clear that it was not the market that was driving their choice of game but their own freedom and autonomy. Thus developers were clearly setting themselves apart from accounts of creative work which suggest that choices are driven by a market philosophy (McRobbie, 2002; McGuigan, 2004) in a bid to liken themselves to expressive creative entrepreneurs.

From these comments it could be assumed that market trends had not been considered when generating the idea for a game. However, some respondents noted that although they had given some thought to understanding the market before choosing the genre of the game they had decided against paying too much attention to the market. This was seen as less of a priority than other factors such as technical innovation and pricing.

“Even though racing games don’t sell the most, the flip side is there is only about 75 of them on the app store and most of them are old so if you’re a racing fan you have probably got it or don’t want it.
So if I can get it slick enough and the price is right it should be OK”. Ali, Independent game developer, Cheshire.

Despite this not necessarily being recognised as the best way to operate, developers cited the freedom and choice they had in choosing the genre of a game as a positive element of their work and showed how this reinforced their choice to become an independent developer. Further confirmation of this was given by developers who likened themselves to creative bohemians engaging in free autonomous work.

“One of the advantages of basically working for ourselves is we can just make what we want to play really, which is what we’ve always done”. Winnie, independent developer, Manchester

This view of developers suggest that the choice of genre is heavily based on a developer’s insight, technical skills, and creativity. This supports accounts of boundaryless careers replete with freedom and choice (DeFillippi and Arthur, 1996) but the degree to which this reflects the reality is questionable. When investigating the types of games that the developers made, it became clear that the technical innovations developers cited were made in order to be competitive with innovations in the marketplace. Furthermore, when questioned the genre of games selected by developers reflected market trends in genres that were well established. For example, developers made games in genres that were well established such as racing games, adventure games and puzzle games. This suggests that the freedom and choice articulated by developers was only within the limits of pre-given formats and drawing similarities with other areas of creative production developers tailored their production to the market (Banks, 2010; Hesmondhalgh, 2012). However, it appears that developers were either unaware or unwilling to attribute their choices to market demands. To do this would undermine the accounts of freedom and autonomy that were used by developers as reasons for becoming self-employed.

After the completion of the development of a game, the developer must then ensure that the product can make an adequate return on the investment. Part of that strategy involves the pricing of the product. This was seen as a key area for developers which involved a significant element of control and planning as the correct pricing strategy helped ensure financial security. Despite the importance of determining the price of the game on the long term viability of the business and their own income, developers noted a high degree of uncertainty with regard to how they would price their product.

“I’m not really sure what to price my games at. I think I would be quite honest with myself and think how much value I think it is in terms of the game and I would probably price mine up or as I see fairly.
I would think as a consumer would I buy that game for 69p, well that’s a packet of crisps so yeah, I would see that as value”. Ali, Independent game developer, Cheshire

This example highlights the indecision in the developer’s mind when pricing games. His pricing strategy was based on a belief that he wanted a fair transaction which adequately reflected the amount of work his team had put into it. He priced that at 69p, the minimum price you can charge for an IOS game without it being free. The view Ali articulated was that he had freedom in pricing his game. However, the extent that this was his choice is questionable as pricing strategies are set by the market. As Ali looked to the market when defining a ‘fair price’ this suggests that ‘freedom’ is constrained by recommended price categories and normative controls from the market verifying literature in this area (Bergvall-Kåreborn and Howcroft, 2013).

Other developers sought to gain the marketing and distribution expertise of a publisher. Although this essentially recreated value chain relationships that others tried to escape, as it meant relinquishing control over the marketing and distribution of their product, this was seen as acceptable in return for financial security. This suggests that strategies to mitigate risk in the creative industries such as identifying genres and the use of catalogues are as applicable to independent development (Townley et al, 2009; Hesmondhalgh, 2012). The unfortunate consequence is the recreation of value chain relationships that developers wished to be freed from when turning to self-employment.

To summarise, in the previous chapter developers cited freedom of choice in the creativity and control of their own production that independent development gave them as a major reason for becoming self-employed. However, the discussion in this section has illustrated that the freedom and choice to develop and bring to market their own product articulated by developers is not reflected in practice, as this is heavily constrained by the market which normatively controls developers. The choice of a platform for development was articulated by developers to be made on technical and creative imperatives. However, the work of Barrett (2005) is relevant in this context as developers tended to refer back to previous experience and rely on a platform they knew due to the lack of appropriate skills or training to learn how to develop on new platforms, perhaps due to the lack of institutional support. Furthermore, the choice of genre and pricing of the game tended to reflect market norms and in some cases recreated value chain relationships. This presents a stark contrast to the drivers of free choice and creativity presented in the first chapter of the analysis. This suggests a type of normative control not explored in the literature aside from Bergvall-Kåreborn and Howcroft’s (2013) account of software development. Pongratz and Voß’s (2003) view of self-control suggests that the
‘entreployee’ is in charge of the process of transforming their own potential into concrete performance. However, the accounts of developers suggest the control they have is limited by restrictions placed on them by the market norms and structural boundaries. This suggests that the freedom and control developers articulated as a reason for become self-employed isn’t representative of their experiences.

6.2.2 Ensuring financial security

Many developers sought to supplement their income with part time work or contract work. This led to developers having to manage the conflicting priorities of dual employment, the maintenance of a work life balance and the financial management of their own affairs. The implications of individuals carrying out other forms of work beyond what they see as their core role as an independent developer invites questions regarding choice and necessity as their main objective appeared to be economic survival.

In order to gain additional income, some self-employed developers sought to work beyond the scope of their self-described primary employment as independent games developers which, for some, involved carrying out freelance software work. Some developers noted that it was decided on the conception of their company that they would utilise their skills to develop applications for other businesses outside the digital games sector in order to earn additional income to fund the digital gaming arm of their business. Essentially this amounted to developers taking on the role of portfolio workers (Handy, 1990).

The carrying out of non-gaming work was articulated positively by developers; one highlighted that this helped his team’s ‘personal sanity’ as it split up weekly tasks and allowed them to change focus and return to the gaming work with ‘a fresh pair of eyes’ (Bill, Independent developer, Manchester). Additionally, the non-gaming work was seen to enhance the future success of the business as it gave financial security to members of the development team. Thus in giving this account developers refer to many of the advantages of portfolio or boundaryless careers such as flexibility, security and psychological benefits (DeFillippi and Arthur, 1996; Elchardus and Smits, 2008). However, other developers contrasted this with rather less positive accounts. One developer noted that the number of freelance projects taken on proved particularly challenging. The management of simultaneous tasks meant that they had to juggle the deadlines set by the client (and therefore money) and their own project. Sharing comparisons with Barley and Kunda’s, (2004) analysis of software work, the challenge
here was the making of explicit trade-offs between ‘billable time’ and their own work, or in other words trading their independence and flexibility with the need to make a living.

Although not all development teams took part in additional work, one development team who described that doing extra work was good for “the balance” of the business worked on a flight simulator on a contract basis. The developer who had earlier stated that taking extra work was for ‘personal sanity’ also described their contract work as giving them ‘just enough to get us by’ (Bill, Independent developer, Manchester). Other examples of this were apparent as developers pursued part time employment in peripheral areas of the digital games sector such as marketing, teaching and writing educational materials. In one example a developer undertook work in marketing digital games when his primary work as a script writer dried up. This highlights that as a response to insecurity, developers search for work in peripheral areas of the sector. Reflective of other areas of the creative industries, insecurity leads to individuals taking jobs in peripheral areas of their core profession (Hesmondhalgh and Baker, 2010; Coulsen, 2012). However, it appears that this is driven as much by necessity as it is by choice as additional jobs provided valuable income to tide developers over.

Other developers supplemented their income by working outside of games. These jobs were in a wide range of sectors with differing levels of responsibility, some work was unskilled whereas others contained significant levels of responsibility. However, developers were reluctant to talk about this side of their working lives, describing these jobs as ‘day jobs’ indicating they were lesser jobs and just something they did for money.

“We’re working day jobs, which is not ideal, it’s not something we mention often! But it’s the only way we can do it. I mean the company’s only been running a few months...... I work full time at a zoo...I’m an animal presenter”. Bobby, Indie Developer, Chester

It is clear that developers wanted to be identified by their digital gaming role rather than by other paid employment. However, for some developers, these jobs took a large proportion of their working week. Bobby mentioned that ‘zoo related work’ took up to 40 hours of his working week and that his business as a sound specialist for games worked around that. He described his business hours fell during evenings, weekends and days off often working to a strict routine which involved working 9-5 at the zoo and then returning at 6pm to work until 12 midnight. This was not an isolated case, another developer described his working hours as a duty manager at a supermarket.

“On average I do about 40 hours a week. So add another 20 to that it does get difficult sometimes with my part time management shifts, I have odd hours”. Chris, Independent developer, Chester
This developer described his ‘part time’ job as taking 40 hours and what he deemed as his main job taking half that time. It is clear that this developer saw his primary employment as in digital game development notwithstanding that his working hours illustrated the opposite. Apart from a conflict in time commitments, meaning that work was limited to 20 hours a week, this developer’s account demonstrates the psychological burden placed on developers as they strive to justify their attachment to their self-employed work in digital games.

Developers openly talked about their additional forms of income from the work within peripheral areas of the sector. However, those developers who were not carrying out additional work within the sector only gave accounts of their ‘part time’ work when pressed. Echoing end of work theorists that highlight the loss of identity as a result of fragmented work (Beck, 1992; Sennett, 1998), Bobby and Chris illustrated tensions surrounding their identity, amounting in some respects to the ‘identity crisis’ highlighted in Coulson’s (2012) account of entrepreneurial musicians. However, developers were keen to suppress any suggestion that this fragmented work pattern damaged their identity as developers, instead they chose to maintain their identity by strengthening their connection with digital games by moving away from a less desired work identity. These accounts show despite this being a fragmented work pattern it didn’t necessarily mean a fragmented identity (Sveningsson and Alvesson, 2003). In this case any hint of failure or a failed vocation were quickly denied by these developers. However, the question remains - how do developers maintain their identity in the absence of secure work? This will be addressed in the next chapter.

Due to the nature of contract work and because of a variety of different income streams, developers noted that keeping track of their finances was something that needed careful planning and attention. For example, when releasing games, developers had to consider the time it would take in order to receive the sales income from their game. One developer mentioned that this could take up to a year: “At the moment we’ve got money coming in from Magnetic Billiards, which was originally released July last year, but we’re working on two different games. So the money’s coming in based on last year’s work and the work we’re doing now probably won’t bring any money until the end of this year. So it’s that sort of disconnect that you have to tell yourself in your head, “I’m working hard on this and I know I’m not bringing money” but there isn’t direct feedback of if I work double hard this week I’m not going to make double money this week.” Pad, Independent game developer, Manchester

In this example the developers talked of the need to keep themselves motivated to ensure a steady flow of income. This highlights that entrepreneurial characteristics of self-discipline and control (Down, 2010) were of paramount importance for this developer. However, verifying Bergvall-Kåreborn
and Howcroft’s (2013) analysis of software developers this is another example of market conditions acting as a normative control mechanism that influenced this developer’s pattern of work. The disconnection between game release and income meant that the developer had to maintain his pace of work pointing to a further erosion of his freedom and autonomy.

The amount of money a developer would receive and the time it takes to receive payment was also a challenge for contract workers. When taking on contract work some developers would assess the amount of money needed to allow them to sustain their lives and carry out just enough contract work to supplement their income and carry on with their gaming work.

“If we can get like one day's work or two days' work in a week, we kind of put it all in a folder, send it to the Company. And then they get back to us a month later and you have got to tax your own. But £10 an hour for me is alright, you know, I could just do one day a week and that will sort me out, but I've got to wait for the money”. Owen, Independent developer, Preston

This quotation illustrates some of the challenges developers have experienced to ensure that they were carrying out enough contract work to pay the bills. This highlights that independence came with self-reliance and ‘strings attached’ (Barley and Kunda, 2004: 176) thus suggesting that for some developers the perception of free autonomous work was naïve. A concern for these developers was that there was often a delay while the payment was being processed which caused developers unease as often they were waiting for payment. Furthermore, some developers mentioned that in some cases, contract work was paid at the end of the project meaning that it was difficult to keep track of time and the allocation of an appropriate payment for that work.

An additional pressure that developers experienced was the administration of their own affairs. Developers talked about having to ensure a regular income while at the same time having to maintain the payment of bills. This meant that they had to spend a significant period of their working week on administration so as to ensure the regular payment of bills. For developers this meant a further intensification of work. In order to gain additional financial support developers discussed the opportunity to gain extra funding through initiatives that supported small businesses1. This was seen by developers as a means for securing future income which would enable developers to be less dependent on alternative forms of income.

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1 Initiatives such as the Abertay prototype fund offer funding and expertise for games developers in order to foster economic growth in the games sector
“I’m applying to the Prototype Fund, there’s a lot of help for start-up games companies. It’s definitely a way to go. We just sent our application format video to the Abertay University prototype fund. I think it’s a £25,000 grant so if we get that, hopefully we’ll be able to work on it as much as we can”.

Seb, Independent developer, Manchester

This was clearly a fairly intensive administrative process which took significant time. A number of firms were keen to spend time on this because of the financial rewards it promised. Although this shows enterprising traits of innovativeness and creativity (Down, 2010), when sourcing income wealth creation was not the sole motivation for making applications to the fund. Developers talked about how additional funding would allow them to quit their ‘day jobs’ meaning that by securing this income they could then focus all their efforts on game development. This respondent noted that investments from the fund would allow them to move into their own game studio and become a more established development team. Another developer made reference that gaining funding would allow them to quit their ‘day jobs’. This demonstrates that this funding would serve as a vehicle to strengthen their connection with their work and secure their work identity rather than a having to cope with a hybrid identity that highlighted a failed vocation of a successful entrepreneur. Although in the previous chapter developers highlighted that turning to self-employment would allow them to wrest more control over their work, this indicates that it was a continuing process and one not solely achieved through being self-employed.

This section has shown that in order to stay financially secure and to have more control of their business in the future, developers must manage their income stream in various ways. Corresponding with those in other areas of the creative sector, many developers engaged in additional work whilst working as independent developers (Hesmondhalgh and Baker, 2010; Coulson, 2012). In some cases the decision to take on additional work was described by some developers as part of the business model when their companies were conceived. Correlating with optimistic portrayals of boundaryless and portfolio careers developers positively noted the freedom that self-employment gave them to use their labour power to enhance their income (Handy, 1990; DeFillippi and Arthur, 1996). However, an alternative view is that developers are forced to look beyond their primary work in order to make a living. This was a common experience amongst developers as necessity and insecurity drove developers to look elsewhere in order to maintain their income. The outcome of this was fragmented work and a psychological burden as developers were keen to suppress any suggestion that self-employment was a failed venture. Instead developers reaffirmed their connection with digital games by using a narrative that additional work was ‘part time’ or something they did just for the money.
Some developers found themselves having to spend significant time on seeking out funding opportunities as an alternative to finding additional work in order to gain control over their future and allow them to spend more time on their own activities rather than on alternative work. The impact of developers taking on additional work or seeking out funding opportunities has meant that developers must manage simultaneous tasks with contrasting imperatives and spend time looking after the administrative side of their affairs. These factors further erode the freedom and choice that developers desired when turning to self-employment. Work for them became more about finding ways to plan and control their work with the objective of survival. This was motivated by a fear of failure that acted as a control mechanism to encourage developers to accept precarious work conditions.

6.2.3 Flexibility in temporal and spatial arrangements

Developers organise and plan their own activities, their working hours and their spatial arrangements. The temporal and spatial work arrangements developers experienced highlights the ‘trade off’ between the benefits of working from home and the loss of attachment from an office environment.

As highlighted in the previous section some individuals were managing part time ‘day jobs’, this meant that for some the working week was extended to 60 hours or more in order to manage various work commitments.

Developers talked about the ‘flexibility’ of being their own boss offered in terms of working hours as they chose their hours to fit around family commitments and their own personal preferences bearing similarities with the benefits of flexibility portrayed by Hyman et al, (2005). Some developers discussed the benefits that this has had on their family relationships and working conditions as they were able to spend time with their partners and self-direct their work. Others perceived that by working flexibly they had freedom and flexibility in determining their own ‘downtime’, something developers felt they could not do within traditional employment relationships. This corresponds with Barley and Kunda’s (2004) observation that freelancers felt they were free to allocate their time as they desired. However, as the previous section highlights, a contrasting account of self-employment is one where individuals often worked long hours and do what they can to make ends meet. Some developers tried to adopt a traditional working patterns working 9-5 wherever possible as they found that this fitted best with their non-work commitments and preferred way of working. However, other developers emphasised that working as an independent developer allowed them to work hours more flexibly, something they would not do in a conventional studio environment. Overall, I found that there was not a regular ‘working shift’, although some developers enjoyed the flexibility to work to a preferred routine. For
example, some developers found that working intensively for short periods was better for them as described by this respondent when discussing his partner’s working hours:

“We do work kind of 9 to 5 broadly. It’s easier for me because I tend to do more of the graphics side of it and data and websites, stuff like that. It’s a little bit more just regular working hours. John works in bursts. So it’s something he struggles with, that, because he’ll often have two or three days of doing nothing but follows up by a mad burst for two days to get loads of work done and he says what it is really the days when he’s doing nothing it’s like he’s got a hard problem in his head and he’s working it out”. Pad, Independent developer, Manchester

This quotation highlights that the benefits of flexibility were finding a routine that served to stimulate creative thought. Corresponding with models of the autonomous ‘flexible’ worker (Banks, 2010), the flexibility of working for themselves gives this developer the ability to organise their work around a creative thinking process. However, this idea of flexibility and independence may be contrasted with long working hours as developers worked beyond normal office hours due to the lack of boundaries that flexible work created. The developer in the previous quotation describes the uneasiness that his partner experiences about this flexible working pattern as he tries to recreate a more traditional pattern of work:

“So if he forces himself to start coding it’s really slow……he struggles with it because he feels guilty if he’s not working and he feels like he should be sat there 9 to 5 doing eight hours of coding a day but at the same time he knows his brain doesn’t work that way, he can’t work that way. So he works on an on/off kind of way but we try to work as much as possible to stick to office hours”. Pad, Independent developer, Manchester

In stark contrast to the positive model of flexibility in boundaryless careers (Elchardus and Smits, 2008), the consequences of flexibility meant that there was a lack of a clear boundary toward work and non-work time essentially meaning that ‘work’ could be required at any time of the day or night. The downside of flexibility can also be seen within the attitude towards holiday time. The lack of conventional boundaries has meant that some freelance developers forgo taking holidays or engage in work whilst on holiday to meet the demands of the employer:

“Well, so far I haven’t had a holiday in this new contract but I would imagine if I was going to do it I would say “if there was anything you needed me to do I would sort it out”. Simon, Freelancer, Chester Younger respondents had not given much thought to holiday periods and generally attitudes towards holidays were relaxed because of the flexible nature of the work. This freelancer’s view corresponds with Banks’ (2010) analysis of the flexible worker, essentially that flexibility meant being ‘on call’ at
any time. Despite citing the freedom that self-employment gave them it was clear that that freedom had to be moderated with self-discipline:

“We just don’t have to book them in advance or anything, I just say, “I’m not working today, I’m off out” but we’re pretty conscientious, we’re pretty disciplined”. Pad, Independent developer, Manchester

Other developers organised their holiday time around networking events. Some developers spent this time attending conferences with other developers they knew:

“I kind of have certain events throughout the year, like Expo’s coming up in a couple of weeks, I am going to this and nothing is going to get in the way. If things are quiet and circumstances kind of collide in the right way I will kind of like, right, I’m taking a week off”. Winnie, independent developer, Manchester

Although this was articulated as ‘holiday’ it was clear that this time was spent carrying out skills development and networking. The implications of this was that ‘time off’ was spent carrying out work tasks. Although developers did not articulate this it became increasingly apparent that time was a precious commodity for these developers; if developers took time off they incurred an ‘opportunity cost’ (Barley and Kunda, 2004) as holidays represented non-billable time or time away from skills development or their own work. This meant that downtime was limited, although separated by developers from ‘work’ as it didn’t represent everyday tasks, it was clear that this time was to undertake tasks such as understanding the market, networking and learning new skills.

When controlling their work, developers also had to consider the impact of spatial arrangements. Many developers worked from home in order to reduce their business costs. Meetings were conducted on Skype or MSN rather than within studio space which would have had to be rented. Echoing Felstead et al, (2001) most developers stated that their spatial arrangements gave them the ability to exercise more autonomy. However, this came at a cost. Developers claimed that a traditional studio environment gave them more credibility but this was thought to be an unaffordable luxury. Perhaps more crucially changes to spatial work arrangements resulted in a lack of attachment with others:

“We quite enjoy the independence, we’re working from home, nobody really wanted to work from an office anymore. Although, it’s the banter, we miss a bit there”. Alan, Independent developer, Manchester
This quotation also highlights the loss of camaraderie and attachment as a result of independent working. Although the ICT’s enabled some form of connection with others without an office-based environment there was no ‘office experience’. For some developers this was something that developers missed and a major disadvantage of their new employment relationship. Although working from home may be practical and in some ways necessary, the result of this is that developers became invisible. This was detrimental to their work identity given the interpersonal nature of the work (Martin and Deuze, 2009). Furthermore, homeworking had an influence on identity, the disconnection meant that developers lost the social axis of work, something imperative to the formation of work identity (Doherty, 2009).

To summarise, the empirical work in this section has shown that developers valued the flexibility in planning how and where they work. However, a more detailed investigation has found that freedom and choice and flexibility is heavily mediated by self-discipline which acts as a normative control restricting their autonomy, something that was crucial when deciding to turn to self-employment. Developers have to consider the ‘opportunity cost’ of time off which has often meant working during holiday periods or working longer hours. Periods of ‘downtime’ such as holidays do not necessarily represent ‘time off’ as developers have shown that they would work in these periods or use this time to attend networking events to update their knowledge and skills. Furthermore, the disadvantages of this flexibility can also be seen in developer’s spatial arrangements. Some developers have said that working from home increased their independence and allowed them more flexibility in organising their work tasks and time. However, some developers recognised a negative aspect to this work arrangement. They felt that they missed the ‘banter’ of an office environment which resulted in a loss of attachment to their peers and an invisibility due to the interpersonal nature of their work.

6.2.4 Summary

This section aimed to understand how digital game developers plan and control their own work activities. This has included the control over the conception of a game, managing income and the organisation of the developers temporal and spatial work arrangements. In the previous chapter developers cited freedom, autonomy and the ability to control their own work arrangements as a major reason for turning to self-employment. This was repeated by developers as they discussed the freedom they had over the product, the organisation of work and their temporal and spatial arrangements. However, it has been shown that developers do control their own careers, but only within tight constraints. To this extent it would seem that developers have exaggerated their own freedom and flexibility. Freedom and choice over the conception of the product is articulated by
developers but this is heavily influenced by market norms and structural boundaries that govern the platform, the genre and the pricing of the product. Furthermore, when managing income developers appear to take additional work in other occupations out of necessity rather than choice, with the lucky few being able to do this within the peripheral boundaries of the sector, whilst those who can’t have to take jobs that lead to a conflicting work identity.

Temporal and spatial flexibility is managed with a large degree of self-discipline which encourages developers to conform to the work arrangements that they are used to. They work long hours and blur the boundaries between work and non-work time. Furthermore, spatial work arrangements lead to a loss of attachment to other developers. In essence, developers articulate freedom, autonomy and self-control over their lives but they exaggerate this because of the normative controls set by their relationships with capital. It has been further illustrated that this results in self-exploitative practices. Developers work long hours in additional jobs to wrest more control over their work in the future and this ‘flexible work’ blurs the boundaries between work and non-work. This essentially means that some developers appear to be ‘at work’ even in holiday time.

6.3 Self-commercialisation

Pongratz and Voß (2003) highlight self-commercialisation as a key function of the ‘entreployee’ stating that active production and the commercialisation of one’s own capacities is vital both within the firm and within the labour market. In this section a number of practices will be identified which will, in turn, show how developers self-commercialise and illustrate how it is an integral component of a developer’s working life.

6.3.1 Working for free or future profit

The digital games sector, like other areas of the creative industries (Hesmondhalgh and Baker, 2010) is seen as a notoriously competitive sector. It is one which is difficult to enter (Izushi and Aoyama, 2006). It has been confirmed that this is the case within the North West of England regional labour market. A common response of individuals looking to enter the creative sector is to work for free in order to establish themselves in the sector (Randle and Culkin, 2009; Hesmondhalgh and Baker, 2010; Coulsen, 2012; Siebert and Wilson, 2013; Randle et al, 2015). This practice can be seen in the digital games sector as a way to enter the sector but it can also be seen that working for free was a practice independent firms used to keep development costs down given the uncertainty of success. This enhances our understanding of the role of unpaid labour in the creative industries.
Developers were generally positive about working for free as they saw themselves as fortunate to gain this experience. There was a willingness for new entrants to work for free either through internships or in work experience in order to gain full time employment in the future. One developer emphasised how his experience of working for free was financially difficult but it was still a positive experience, “It was very competitive to get noticed and at that time... ... I probably lost a couple of hundred pounds. But that was actually during the summer, so I would normally be in Ireland. So what I did was I paid for university halls in Manchester that weren’t used... ... I did make a loss. I couldn’t have done it any longer than that, but, I would do it again”. Sven, Game developer Cheshire.

Despite the financial cost of around £200 incurred by this developer he still found the practice beneficial to his career and talked positively about working for free. For this developer the expenditure of time and money was justified because it increased both his contacts and his knowledge. Sven’s case was not an isolated one. Other developers also talked about the opportunity an unpaid placement gave them when looking to start a career. This acceptance as ‘the way things are’ correlates with other accounts of working for free in the creative sector (Randle and Culkin, 2009; Hesmondhalgh and Baker, 2010; Siebert and Wilson, 2013). It is undoubtedly a concern, as identified by Randle et al, (2015) that the exclusionary nature of this practice means that those without sufficient funds are unable to participate.

These aspects illustrate that working for free is a recognised but exclusionary way of gaining experience in a competitive sector. However, this work arrangement was not limited to those individuals who took internships or placements. Working for free, sometimes rationalised as ‘working for a share of future profits’ was widespread as work without pay has become a common arrangement amongst independent game development firms in order to keep production costs down. Although this may seem to be an unexceptional arrangement, it assumes that the developers involved would not need a wage, again pointing to the exclusionary nature of working for free (Randle et al, 2015). Although working for a future share of profits may not necessarily be deemed the same as working for free, given the context illustrated in the previous chapter of production in games being particularly risky there was no guarantee that the game would make a profit. Ultimately, this means that the risk from a game is ultimately being passed on by the independent development company to the individuals that work within it. One developer explained the typical arrangement:

“So that’s the plan, so no one earns anything until something is shipped and incentive there is for people to finish a project so if you don’t finish it you don’t get paid and then base the profit share on the content and the effort you have put in”. Ali, Independent developer, Cheshire.
Ali explained that working for a share of future profits effectively acts as motivation and control for the developers to stay with the project. Under this plan the developer assumes that the game will make a profit and then uses this to keep developers involved in the project. It is therefore up to the worker to ensure the maximum return on his or her own labour potential. This places additional importance on the individual to motivate himself or herself for work. Also, the initial lack of remuneration ensures that the developer is tied to the project if they want to gain a financial return on their work in future. If the developer leaves he or she will forgo any opportunity to get paid.

Developers recognised that this was representative of the culture of the sector. It appears that developers have embraced this entrepreneurial discourse and the consequent encouragement of risk because they are under the impression that it will lead to reward in the future (Down, 2010). However, when I pressed developers on why they would accept working for a future share of the profits, they cited reasons beyond ‘landing a job’ in the future and simply making money. Developers explained in emotive reasons what encouraged them to undertake working for free or for a future profit share of the profit. Developers argued that this was a more ‘open and honest’ (Ali, Independent developer, Cheshire) way of making games. Additionally, developers regularly talked about the passion they had for projects and how working with others in a small development team inspired them:

“I've got to really count my chickens and not think I'm not getting paid. Because at the end of the day, I'm putting the effort in, and my passion to make something that basically is really nice and I'm proud of. I'm really proud already and it hasn't even come out, and that's a lot of satisfaction for me”. Owen, Independent developer, Preston

This developer highlights how fortunate he is to be involved in this project. Although he is not getting paid this developer claimed that the lack of payment was something that he ought not to focus on. Instead he chose to value his experience and the job satisfaction instead of financial remuneration.

This account should be understood in the context of the inhospitable conditions which were described in the previous chapter. This bears similarities with the findings of others engaged in creative work. It shows that in the context of precarious work creative workers accept exploitative working conditions (Hesmondhalgh and Baker, 2010). Moreover, it illustrates how developers defend, rationalise, and justify these conditions.

It has been shown that working for free is as prevalent in the experiences of these developers as it is in other areas of the creative sector (Randle and Culkin, 2009; Hesmondhalgh and Baker, 2010; Siebert
and Wilson, 2013; Randle et al, 2015). Generally this was accepted as ‘the way things are’ and represents an increasingly normalised practice in the sector. In particular, working for free or a future share of the profits was relatively common. This demonstrates the clearly exploitative nature of the digital games sector where individuals accept that they should give their own time, ideas and allow others to exploit their intellectual property in order to experience satisfaction in work, get ‘experience’ or to gain exposure in the sector.

6.3.2 Networking

As the digital games sector is notoriously competitive, developers within this sector seek to commercialise their own potential in the labour market. In this section the respondents confirmed what is generally known about the creative industries and expressed in the literature, that networks are the key to gaining work or future employment opportunities in the context of insecure labour market conditions (Thompson et al, 2015; Blair et al, 2003; Townley et al, 2009; Haunschild, 2003; Skilton, 2008; Hesmondhalgh and Baker, 2010; Coulson, 2012; Siebert and Wilson, 2013; Randle et al, 2015) even to the extent that skills are ineffective (Blair et al, 2003). Networking for this group of developers intensified work, blurred boundaries between what is friendly and what is instrumental, and illustrates the challenges of managing a virtual identity as networking practices have now been extended to online networks.

The digital games sector in the North West was perceived by developers as a small, close-knit community. This was highlighted by developers and confirmed by a recruitment specialist:

“It is a small community, you do find the same names cropping up again and again and again”. Ross, Game developer, Manchester.

“It’s like literally, like two, three degrees of separation in the North West games market”. Sabi, Recruitment consultant, Wilmslow

The tight-knit nature of the sector was underpinned by meeting up at networking events and online forums. Because of the innovations in the sector it quickly became common knowledge as did any development in employment opportunities. Activities described by developers were, in some respects, reflective of Grabher and Ibert’s (2006) characterisation of software ecologies and Wittel’s (2001) characterisation of ‘network sociality’ as relationships were seen predominantly as informational. Word spread quickly regarding any news. Corresponding further with the conceptualisation of ‘network sociality’ developers saw networking events as an instrumental way to find work in a competitive sector:
“we go to a lot of graduate shows, you must network...networking is not a hard or painful thing, you just go and have a few drinks, and laugh with some people...it’s a nice thing to do, but you must do it, because when these companies have jobs coming up, if they want a programmer they’re not going for the guy from the other end of the country who just sends in a CV...unless he’s got some amazing skill, they’re going to go...‘Oh we had drinks with this programmer, he’s a really nice chap, call him up.’ So you definitely need to network, because jobs will go to people they know first, people want to employ their friends or help them out. So if you can network and get to know people, you’ll become their friends and when the jobs come up you’ll get them”. Bill, Independent developer, Manchester

This quotation describes ‘catching up’ at networking events as an instrumental activity of self-marketing. Although blurring the boundaries of personal and work relationships, developers became ‘entrepreneurs of their own human capital’ (Grabher and Ibert, 2006:266) reflecting a more individualised relationship with the community. Developers realised that constructing social bonds enhanced social capital and therefore employability and career mobility.

Developers maintained that you heard about available jobs first if you were an active member of the digital gaming community. By being in touch with prominent members of the occupational community developers found that not only did they hear about opportunities first but they were also able to find out what employers wanted from applicants and could recombine their skills in order to meet the needs of a potential employer. Some respondents described this as something that came easily to them and they confirmed that they were comfortable with the practice:

“I go to a lot of events and conferences and I know a lot of people so if I was particularly looking for something I would email them and ask them if they need this doing, when I’m at a conference and they say I’m working on a project but I don’t have this, I say hey that’s what I do”. Simon, Freelancer, Chester

This developer describes how he participates in ‘active networking’ (Blair et al, 2003) pointing to the importance of amassing a list of contacts when he is looking for work. In some respects, sociality became ‘the ears and the eyes of the labour market’ (Ibert and Grabher, 2006: 262) as a way to cope with labour market insecurity.

Some developers were enthusiastic regarding the opportunities that networking could bring and felt that the hard work that they put into meeting others would eventually come to fruition. Some spoke of the opportunity networking could bring as meeting the right people “could change their life’ (Owen, Independent developer, Preston). Others felt that networking provided a vehicle to enhance the reputation of their firm:
“Networking is going to be the easiest way into a job or the easiest way into collaborations between studios. So I think it's really important to network, get yourself out there for people to know who you are as a studio and who belongs to that studio I think is very important. So yes, getting yourself out there as much as you can, getting feedback from everyone towards your game can only be beneficial”.

Jack, Indie developer, Manchester

This developer highlighted a benefit of networking beyond finding work. For him networking wasn’t solely about finding work, it also led to collaborations between studios. In this case networks were seen not only as a way of dealing with an insecure labour market, but as a way of facilitating effective production, likening digital games to other areas of creative production where informal networks acted as an informal social organisation that enhanced effective production (Townley et al, 2009). Furthermore, Jack draws on the ability of networking to act as a vehicle to gain respect and recognition from the others in the occupational community, something he sees as vital for gaining work in the future. This highlights personal standing is crucial in self-commercialisation in the software sector (Bergvall-Kåreborn and Howcroft, 2013).

Active networking did not occur just on a face to face basis at networking events. Corresponding with other accounts of online networking in software occupations (Ibert and Grabher, 2006; Bergvall-Kåreborn and Howcroft, 2013) many developers invested time in online social networks in order to establish themselves in the digital gaming community or to look for work. The emergence of ICT’s such as smartphones allowed developers to network while away from their desk, making this an activity that could be carried out at any time or place. It was the general assumption that commercialising their own potential required commitment and hours of dedication. In some respects, online networks provided developers with the ‘know how’ rather than focusing on the accumulation of contacts (Ibert and Grabher, 2006) as posts often shared information regarding particular themes such as skill development or innovations in technology. Highlighting the altruistic characteristic of this community, social networks such as Twitter and LinkedIn also facilitated the communication job of opportunities amongst the game development community as these were shared by developers online:

“I’m on LinkedIn and obviously on twitter as well which is a good tool that a lot of people are using now, you can always see lots of jobs and things advertised on twitter and get passed around so yeah, I have been trying to make use of those”. Jay, graduate game developer, Chester

This respondent found that posting on social networking sites was a good way to increase his credibility amongst developers and promote himself within the sector. However, this was not without its drawbacks:
“Sometimes I post a tweet I wonder if it’s totally appropriate for someone who is wanting to employ me”. Jay, graduate game developer, Chester

This quotation demonstrates the tensions that some developers have surrounding conflicting identities. Essentially this developer’s ‘virtual self’ had to be tightly controlled, instead of an interactive medium to connect with his friends, his personal social media account was now a way to manage his ‘personal brand’. In the same way that offline networking blurs work and lives boundaries (Hesmondhalgh and Baker, 2009) it appears that online social networking has a similar effect.

Many independent developers used social networks to promote their business treating it as an extension of offline networking. The objective of this was to gather as many followers as possible and create an online ‘buzz’ about their studio and games:

“It allows us to, spread the word about our business, which at the moment because we’re just in our first year is still really important......we’ve got a lot of important followers but I don’t think we’re as grounded as we want to be. And of course we need to promote our current title in the studio which is Ether, which is really important. That’s a daily basis thing”. Bill, Independent developer Manchester

This developer saw online networking as a key element of his business. Other developers highlighted the ability of social networks to promote their studio and to find out what others are doing in the sector. This suggests that developing a reputation for the studio and gaining respect and recognition for their firms work was as relevant to online activity as it is offline.

In some cases online networking replaced offline activity if developers were unable or unwilling to attend events. Generally, developers found that by connecting on sites such as Twitter and LinkedIn they could then be kept abreast of what was going on in the sector without needing to attend networking events or meeting up with other developers on a regular basis. As many developers worked from home, this allowed them to keep in touch with the community and keep updated with the latest discussions in the sector. Essentially, this meant that social networks replaced the corridor, the coffee shop or the networking event as a place to go to hear gossip, latest developments and jobs. Social networks were useful for those who didn’t have access to conventional office environments. However, this represented a reaction to disconnection with work. It appears that in order to reconnect with other developers, social networks were crucial; the implications of this will be examined in the next section.
In summary, this discussion has focused on the close-knit nature of the digital games community in the North West of England. Developers were generally positive about the opportunity that networking could bring. They had a positive attitude towards networking, both on and offline. Developers recognised how more effective networks could make them more employable, assist in their skills development and was a vital tool in the promotion of their studio among their peers. However, positive attitudes towards networking came at a personal cost for developers that could be seen as self-exploitative. Firstly, networking for these developers is seen as crucial but it intensifies work for these developers as more time is spent ‘at work.’ Developers felt that they needed to devote considerable time to this practice given its importance. The instrumental use of networking blurs the boundaries between what is social and friendly and what is instrumental and career orientated. As has been seen this extends to online. The challenges of managing virtual work may conflict with self-identify. Furthermore, the use of networking to learn new skills and interact with the community can be seen as a response to a loss of an attachment as developers use social networks to recreate the office environment.

6.3.3 Summary
In this discussion two ways have been identified in which developers deal with unstable labour market conditions. Developers appear to accept that they must network and undertake unpaid work. However, both add further burdens to the exploitative character of the sector. Working for free exploits the developers’ own time, ideas and intellectual property in order to get ‘experience’ or gain exposure in the sector and demonstrates the developers’ positive attitude towards risk versus reward, even though there is only a slight chance that the risks developers take will pay off. Networking intensifies work and blurs the boundaries between work and social time for developers as they seek to commercialise their own potential on the labour market either through enhancing opportunities for employment or skills development. Furthermore, the loss of attachment is a consequence of self-employment. To accommodate this developers use networks and the occupational community in order to find out what is going on in the sector.

6.4 Self-rationalisation
The final characteristic of the conceptualisation of the ‘entreployee’ concerns the self-determined organisation of daily life and long term plans, including the willingness to accept the centrality of work in one’s life (Pongratz and Voß, 2003). This characteristic highlights that the active production and commercialisation of their own capabilities has profound implications for their lives. Under this categorisation ‘the entreployee’ understands that job life boundaries and concerns over their working
lives no longer apply as commitment to work means the reconciling of work and the merging of work into everyday life and the acceptance that work consumes all areas of their lives. Literature in the creative industries describes the sector as having a ruthless work regime (Hesmondhalgh and Baker, 2010) characterised by a blurring of work and non-work time (Randle and Culkin, 2009) long working hours (Banks, 2007) and underpaid and overworked conditions (Arvidsson et al, 2010). Work in the digital games sector is no different, extreme work conditions and insecurity characterise the sector (Peuter and Dyer-Witherford, 2005; Thompson et al, 2015; Peticca-Harris et al, 2015). In this analysis it is not claimed that these conditions are new but rather it should be noted the extent that developers accept these conditions.

Developers have previously claimed that a principal reason for becoming self-employed was to escape the ruthless work regime that characterised work for many employees of large development studios. The respondents discussed the intensive nature of project work and highlighted that ‘crunch’ was normalised within the sector:

“I think making the game, crunching is the day to day activity. I mean, if you don’t crunch then you’re not going to really make a game. Space Wings, I mean did you read in the news the other day that they got number one... It’s amazing what you can do with slavery, isn’t it?... My mate, used to work for Space Wings and you’re expected to crunch. It’s not in the contract, but it might as well be. You’re just expected to work and it’s bleak. If you don’t do the crunch then you’re frowned upon, then if you get frowned upon you get fired”. Ross, Game developer, Manchester.

This quotation suggests that the intensive nature of digital games production and ‘crunch’ described by Peuter and Dyer-Witherford (2005) and Peticca-Harris et al, (2015) is apparent to those developers who form the subject of this study. Furthermore, Ross refers to the expectation that developers will participate in crunch and suggests that if they refuse to accept this practice they would be dismissed. The account of crunch given by Ross can be compared in some respects to the understanding of crunch by Peticca-Harris et al, (2015) as a neo-normative control mechanism as developers accept this practice due to angst about career prospects and future employability. Other developers described crunch as ‘enforced slavery’ or ‘geeksploitation’ (Alan, Independent developer, Manchester) reinforcing Ross’ claims that this was an accepted practice and representative of the culture of the sector.

Developers cited exploitative working practices as a reason for turning to self-employment. Crunch was an important factor. It became clear that many developers often had a working week of up to 60
hours. Putting time into their business was seen as necessity in order to improve chances of future success. However, this was articulated in a different way when developers talked about their own working practices:

“It’s a funny one, because when you work for yourself it isn’t crunch. So if I decide to work late cos I’m enjoying it or I wanna get something done that’s because I’m choosing to”. Ali, Independent game developer, Cheshire

What is important here is the extent that self-enforced crunch is understood as free choice. Generally, crunching was a choice this developer was making rather than something that was forced upon him. In this example there is a clear separation in the developer’s mind with regard to what does and what doesn’t constitute ‘crunch time’. If crunch time is self-determined then this does not count as exploitative because it’s his ‘choice’. However, the relative amount of freedom here can be questioned. The discussion on self-control showed that developers have to manage their work tasks in the context of the demands of their business. Their ultimate goal is survival. Although this developer may claim that working long hours isn’t crunch as it is determined by free choice, in a sense, he is caught up in by ‘capital’s circuit of control’ (Wilmott, 1997). Because of this and the demands that self-employment brings it is suggested that this element of control is as apparent in independent development as it is in console development (Peticca-Harris et al, 2015). The choice portrayed by this developer appears, in some respects, to be an articulation of the freedom and choice that motivated this developer to turn to self-employment. In essence he is confirming his sense of purpose and identity as an ‘independent’ developer replete with choice, freedom and autonomy.

Whilst some of the more established developers work ‘regular’ working hours, many less established developers work extended hours as an illustration of commitment to the ‘project’. This was described by respondents as ‘just the way it is’ in the sector if you wanted to succeed. Developers talked about working long hours as an illustration of the passion they had for their work and the project they were involved with:

“You wake up at 9 am, start working and go to sleep at 2am in the morning. You have to be passionate about what you’re doing”. Jack, Indie developer, Manchester

This developer when describing long working hours speaks of passion as being a prerequisite for working in the sector and that long working hours were a way of demonstrating the appetite for work. In this sense it appears that this attachment to his work stabilises tensions in working hours (Thompson et al, 2015) corresponding with research in creative industries that suggest a self-
actualising of work and a love of their craft contributes to an acceptance of poor work conditions (Ursell, 2000; McRobbie, 2002; Ross, 2003; Hesmondhalgh and Baker, 2010; Arvidsson et al, 2010). Jack communicates the belief that work is a central part of his life and the long hours are an illustration of his passion to the detriment of his work life balance and rest time.

The flexibility in working hours and going beyond what might be deemed as ‘normal’ working practices indicates that developers were willing to accept the central importance of work in their everyday lives. They accept this as normalised behaviour. As discussed earlier in this chapter, generally developers were willing to engage in ‘work tasks’ even when they are ‘off work’ either in personal time or on holiday. Development in ICT’s allowed individuals to be closer to work when they were having ‘downtime’ as conversations with colleagues would regularly take place out of ‘office hours’. Some freelancers illustrated their flexibility and commitment to work carrying out work in their personal time from a variety of locations:

“I can go out and if there is anything particularly urgent they can give me a bell and with mobile phones you can answer emails and do twitter from anywhere if it’s really urgent…….. so far I haven’t had a holiday in this new contract but I would imagine if I was going to do it I would say if there was anything you needed me to do I would sort it out”. Simon, Freelancer, Chester

Simon understood that being ‘on call’ was part of his job and he was happy to work remotely while he was ‘off work’ as he felt this would increase the chances of him getting another contract with his employer. The flexibility shown by this developer clearly illustrates the acceptance of work as a central part of his life. This developer was encouraged to invest time, energy and human capital as a result of his insecurity born from the competitive nature of work (Neff, 2006). In essence, this illustrates that the developer appeared to accept that work needed to be central in his life and this had an impact on his freedom and autonomy.

The extension in working hours did not just apply to the carrying out of job tasks. Networking was seen as an additional task which contributed to the intensification of work for developers. The implication of this was that developers spent more time ‘working’. A key area of this was on social media as ICT’s allowed developers to have a constant connection to their ‘network’ which developers claimed resulted in employment opportunities and skills development. As a result of this developers were adamant this had to be treated as work:
“It is work, it brings us in money, I think, by people knowing about us...a couple of clients have contacted us and said, ‘We’ve heard about you through Twitter.’ So, yes, you need to treat it like work!” Bobby, Indie Developer, Chester

It was understood that there was a causal connection between social media presence, interactivity and the amount of work this developer gained, meaning that ‘active networking’ (Blair et al, 2003) on social media was an area of work of vital importance to this developer. Whereas offline networking was restricted to a number of ‘meet ups’ a month, electronic networking was more of an on-going activity. Some developers described this as a social tool that was ‘fun’ as developers used social network platforms to talk to friends and fellow developers in their personal time. As self-marketing merged into social spheres, this resulted in more time ‘at work’ even if it meant that work was being carried out simultaneously with social meetings, events and time off. Developers talked about the amount of time they put into this practice:

“I think a lot of time goes into it, at least 10 to 15 hours a week. It is a very important, it’s crucial basically for our funds because we currently don’t have any other advertising. So it’s basically us online all the time and we can keep in touch with anyone who needs us”. Chris, Independent developer Chester.

Due to the financial constraints of the business, developers found that the marketing of their products and services through social media was a financially astute decision and a business task that they were responsible for and allocated time to it. This represented a further blurring of the boundaries towards work and non-work. However, it is important to note that generally developers were not concerned by this as they accepted this as ‘normal’ practice. It appears that in the context of the overall insecurity this was something they were willing to put up with. Many used this practice for work related tasks which further eroded the time that developers spent ‘off work’ increasing the centrality of work to their lives.

To summarise, developers appear to accept the centrality of work in their lives. One example of this is the attitude towards ‘crunch’ time. In large studios developers were critical of this practice whereas in independent development, there was an acceptance that this was the culture of the sector and part of the job. Despite developers saying that they wanted to get away from the ruthless work regime of console development, parts of this regime seem to be replicated in independent development as some developers cited up to a 60 hour working week.
This was rationalised and accepted by developers in two ways. Firstly, it was admitted by developers that they separated ‘enforced crunch’ from crunching in their business. In their minds ‘crunch’ was something that they were choosing to do rather than it being forced upon them and therefore it was not exploitative. However, in this discussion it has been argued that although it is not an employer that is obliging an employee to work long hours, the extent of the control imposed by self-employment and the culture of the sector leads to developers to exploit themselves. Secondly, developers rationalise working long hours because of their enjoyment, passion and commitment towards their work. Because of these factors developers appeared to accept long hours as it was an illustration of how much work meant to them and their ambition to succeed. However, self-actualising work comes at a cost for these developers as this translates into long hours adding yet more evidence towards the self-exploitative nature of the sector. Working long hours also extend beyond ‘crunch’ time. In order, to keep themselves employable and to self-commercialise their own potential, developers work longer hours which erodes their time ‘off work’.

In this discussion it has become apparent that in order to retain contracts developers were tolerant of the need for their work to take over holiday time. In addition, other developers understood that marketing themselves and their product meant longer working hours and an intensification of work tasks. Rather than rejecting this and complaining about their conditions, developers appeared to accept that their working conditions further erode their freedom and autonomy and it is suggested that developers now accept their exploitation.

6.5 Conclusion – A self-exploitative nature of work

The data has been organised in accordance with Pongratz and Voß’s (2003) ideal type of ‘entreployee’. Using this conceptualisation we have seen the reactions of developers as they seek to deal with challenging labour market conditions highlighted in the first chapter of analysis. In the previous chapter developers cited control, freedom and autonomy as major reasons for pursuing self-employment, however in this part of the discussion it has been found that in reality this is eroded as developers try ensure their economic survival and secure remunerative employment. In this chapter there has been a contribution to the literature in the digital gaming sector within the specific focus on entrepreneurialism, which is largely absent. It provides a critical assessment of the impact of entrepreneurialism and enterprise on individuals’ working lives, building on research from Pongratz and Voß (2003).
Self-control appeared to be eroded as pre-existing market structures normatively control developers dictating the platforms, genres and pricing of games leaving developers with little alternative other than to develop games in line with market norms. Market conditions dictated that developers take on additional work to fund their own projects whereas temporal and spatial ‘flexibility’ resulted in long hours and a loss of attachment from their peers. Self-commercialisation is as important in the digital games sector as in other areas of the creative industries with developers. Working for free is understood as a legitimate way for developers to establish themselves and to develop their reputation in the sector whereas networking extends the working week, intensifies work, and blurs the boundaries between work and private life. In the discussion on self-rationalisation it became clear that developers are willing to accept the central importance of work in their lives. ‘Crunch’ was apparent in independent development, however developers claimed it was their choice and an illustration of passion for their work. However it is suggested here that long working hours are representative of the culture of the sector and ‘crunch’ in independent development is due to the demands of self-employment as developers are caught up in pursuit of capital. Furthermore, the extension of working hours that also applied to networking was accepted as ‘normal’ practice and was accepted as such by developers. Because of the insecurity in their work this was seen as something they were willing to put up with.

The findings from this discussion point to the emergence of a new characteristic of Pongratz and Voß’s (2003) conceptualisation of the ‘entreployee’. While the authors discuss self-rationalisation as one of the key features of the ‘entreployee’, evidence from this study suggests that developers have to go beyond this feature and further redefine their capacity in the workplace as an acceptance or willingness to self-exploit or be exploited. It has been revealed here how developers are complicit in their own exploitation in a number of ways, firstly by working well beyond the normal hours of a ‘working week’, either by effectively being ‘on call’ to their employers, working long hours in dual employment or in order to explore opportunities that may increase their potential success in the sector. The second aspect involves working for free or for a future share of the profits and exploiting their time, their ideas and their intellectual property in order to get ‘experience’ or to gain exposure in the sector.

A limited number of studies point to self-exploitation in the creative industries (Ursell, 2000; McRobbie, 2002; Ross, 2003). These studies discuss the themes of self-actualisation, the love of their craft and the gift of autonomy as justification or reasons for self-exploitation. The intention of the next chapter is to contribute to this area by offering differing explanations that offer reasons why individuals self-exploit. It will do this by investigating how individual and collective beliefs, values and
motivations have influenced the activities of developers, including the desire to belong to a community.
7.0 Understanding self-exploitation through ‘the individual’ and the occupational community

7.1 Introduction

The previous chapter has highlighted the lived experiences of developers in the digital games sector. Within this analysis it has become apparent that developers have accepted self-exploitative practices or willingly contributed to their own exploitation. A small collection of studies point to self-exploitation in the creative industries. This self-exploitation is rationalised or has become accepted because of the self-actualising nature of the work, the creative industry workers love of their craft and the gift of autonomy (Ursell, 2000; McRobbie, 2002; Ross, 2003). In this chapter the aim is to contribute to this area of literature by increasing our understanding of the reasons why individuals engage in self-exploitative working practices.

Ursell’s (2000), McRobbie (2002) and, Ross (2003) explanations of reasons why individuals self-exploit indicate that this comes from the subjective feeling that individuals have about their work. Building on this, the first part of this chapter will focus on individual values and beliefs that provide meaning in developers’ work and illustrate how this can act as a control structure that limits resistance to self-exploitative practices. Although developers cite the self-actualising nature of their work as a reason for accepting challenging conditions, it will also be shown that their commitment to the career project, an ethos of enterprise and a sense of belonging to a community can offer explanations and reasons for the lack of resistance to exploitative conditions.

The next part of this chapter uses an ethnography of two occupational communities to illustrate the collective, rather than individual, motivations of the occupational communities’ contribution towards the shaping of the values and beliefs of its members. It finds that developers form ‘communities of practice’ (Lave and Wenger, 1991) in order to better equip developers to deal with challenging environmental conditions. However, the established rules of behaviour in these communities often unintentionally encourage work practices that normalise self-exploitative practices and in turn contribute to the acceptance of self these exploitative practices.

7.2 Individual meaning of work

In this section it is proposed to show how the subjective values and beliefs of a developer provides a control structure and rationale to enable and encourage them to engage in what may be deemed by many as exploitative work conditions. It argues that exploitative conditions are tempered by a passion
for the work, a commitment to the occupations and the career, the enterprise and a sense of belonging
to a community, dealt with in more detail in the second part of the chapter. It also suggests the
subjective beliefs that developers hold about their work roles result in a lack of resistance to
exploitative conditions.

7.2.1 A passion for games

The purpose of this section is to understand how a passion for games and an identification with the
profession provides an explanation for why developers engage in the self-exploitative activities which
were highlighted in the previous chapter. Like other areas of the creative industries (Ursell, 2000;
McRobbie, 2002; Hesmondhalgh and Baker, 2010; Ardivsson et al, 2010) work in the digital games
sector has been represented as self-actualising work or self-expressive work (Thompson et al, 2015)
where developers are willing to invest their labour to a large extent because of their passion and their
love of games (Peticca-Harris et al, 2015). Furthermore, the work of digital game developers has been
presented in the form of ‘work as play’ (Peuter and Dyer-Witherford, 2005:5). For some in the creative
industries the self-actualising nature of creative work has been used as a justification or a reason to
describe why individuals participate in self-exploitative practices. The purpose of this section is to
illustrate the self-actualising nature of work for the individuals in this study and to understand how
this contributes towards the acceptance of self-exploitative practices.

Like other areas of the creative industries, respondents who were interviewed were overwhelmingly
positive about having the opportunity to work in a sector that they considered fun, exciting and
innovative. Many developers cited their childhood as the time when they realised that they wanted
to work in digital games:

“I got my first games console when I was four, I played Sonic the Hedgehog a lot as a kid. When I got
my PlayStation when I was 12 and I played Final Fantasy VII and it just blew my mind because I hadn’t
really seen games as storytelling, but you could tell stories with games but not big, epic stories with
twists. Then when I played Final Fantasy VII I was like, oh, you can tell really amazing stories with
games, and that’s what I wanted to do”. Winnie, Indie developer Manchester

Another developer cited a similar situation of wanting to work in games from a very young age
demonstrating how he was propelled towards a career in games:

“I got a Sega Master System two, with Alex the Kidd built in. It was the end of my life that really. I was
just glued to the television, I just loved it. I just didn’t understand how I could just be so immersed in
something. And then through my life I’ve got consoles and just love video games. I know every game
“that’s been made, but I haven’t played all of them but I know every game. I just love it. I love the idea of… it’s like all mediums come together; there’s music, film, books, just everything combined into one medium that’s just brilliant, I love it to bits. So that’s why I wanted to be a games designer”. Owen, Independent game developer, Preston

Winnie and Owen talk about their love of games and how this translates to a desire to work in games. They point to the aspect of creativity in illustrating their passion for games. These developers who work in digital games have self-expression and self-fulfilment in their occupation which, in turn, has reinforced an aestheticised identity that is evidenced in the creative industries and digital games literature (Hesmondhalgh and Banks, 2009; Thompson et al, 2015). These accounts also highlight that working in digital games is more than just a job. Many described working in digital games as a vocation or ‘a calling’ and described their choice of a career in digital games as following their hearts and doing what they loved.

Working in digital games was articulated by other developers as a dream job:
“I mean, games has got one of those, sort of… dream jobs, isn’t it, you know, it’s like an astronaut. You know, a lot of people are very passionate about games”. Sven, game developer, Wilmslow

This suggests that working in games represented the fulfilment of a long term ambition and that it was much more than a job. This developer compared working in digital games to jobs that may be beyond the reach of most individuals highlighting his good fortune in working in the sector. Work in this field can be categorised alongside the utopian presentations of creative work exempt from boredom or disaffection (Hesmondhalgh and Banks, 2009). This developer has distinguished digital games development from other mundane occupations by comparing it to those of an astronaut, drawing on the personal attachment that this developer has to his work.

What we see here is that the accounts of developers in this section point to the self-actualising nature of work in digital games. In so doing it verifies areas of the creative literature (Ursell, 2000; McRobbie, 2002; Ross, 2003; Ardvisson et al, 2010). It became clear that these ideas were being endorsed in this context when developers were seen to justify what may be deemed as exploitative working conditions. For example when rationalising their decision to work without payment this developer gave some explanation as to why he engaged in what might seem to be an exploitative practice:
“I want to make a game, this is why I’m in this, and I’d love the chance to make a game, even for the sacrifice, and I’m not getting paid now and, you know, I’m just purely working non-stop on it but I love
the idea of the company”. Owen, Independent game developer, Preston

This developer highlights the opportunity he was given to work on a project he was passionate about. He explains that the lack of financial remuneration and long working hours were a ‘sacrifice’ he was willing to make in order to be involved in self-actualising work in an industry that he loved.

Other developers compared their current role in digital games with previous experiences in alternative employment to rationalise the difficult and unstable conditions that they experienced in the digital games sector:

“I think because I worked in retail for a good few years solid that’s kind of made me think, oh this is okay, I can deal with this, anything to not go back to retail”. Gill, game developer, Bolton

For this developer long hours and ‘crunch’ were contrasted with their previous mundane work which lacked job satisfaction. Despite the challenging work conditions, this developer felt that working in digital games offered a creative, fun and collaborative environment that other types of work could not offer. The accounts of developers in this section not only suggest that developers are engaged in self-actualising work but also serve to show that job satisfaction exists amid challenging working conditions. Corresponding with Thompson et al, (2015) these cases suggest that the attachment and self-actualising work diminishes workers’ resistance. Moreover, passion appears to be a form of control that enables the worker to tolerate and to some extent embrace the difficulties associated with exploitative work conditions.

To summarise, this section illustrates why developers are motivated to work in the digital games sector. This section also goes some way to illustrating why developers seem to accept challenging work conditions. This study connects with a body of literature (Ursell, 2000; McRobbie, 2002; Ross, 2003) that suggests that self-actualising work acts a control mechanism that justifies self-exploitative practices. The level of self-actualisation in their work partially explains why developers self-exploit. However, the purpose of this chapter is to find additional reasons why developers appear to accept self-exploitation therefore providing a new and distinct contribution to this area of the literature.

7.2.2 Commitment to a career

Many developers stated that freedom, autonomy and creative control were important factors in reaching the decision to become-self-employed and they talked positively about how this ensured a greater satisfaction with their work. However, in the discussion on freedom and autonomy in the previous chapter it was found that the demands of self-employment effectively meant that developers
worked well beyond the normal hours of a working week in order to establish themselves in the sector.
In the following discussion the aim is to understand how discipline and commitment allowed
developers to accept the exploitative practices.

The argument presented in the previous chapter highlighted some self-exploitative practices that
were rationalised by developers through their discipline and commitment to their career. Generally
developers understood that there was a certain level of ‘sacrifice’ needed in order to establish or
maintain their position in the sector. Working without pay, networking practices and long working
hours were seen as something that developers ‘must do’ in order to achieve their long term ambitions.
This was exemplified by one developer who described the reciprocal relationship between hard work
and success:
“So it does sometimes get difficult but obviously at the end of the day the company’s profit and success
is basically measured on how much we want it and obviously we’re not just fooling around, we are
100% in tune with each other”. Chris, Independent developer, Chester

This view highlights that his commitment to his career is the most important indicator of future
success. Corresponding in some respects to Grey (1994), this developer’s pursuit of a successful career
overcame his desire for freedom and autonomy and was replaced by his discipline and his
commitment towards his work. In order to reinforce this belief, this developer has implicitly separated
himself and his partner from others. He suggests others may not have engaged in the same kind of
‘career project’ and therefore would not have had the same commitment to work that he does. The
phrase ‘we’re not just fooling around’ demonstrated a clear difference between him and others in the
sector who he has perceived are less committed and less disciplined in their work. Essentially this
demonstrates the character of this developer in that he suggested that hard work, discipline and
commitment is a prerequisite for success.

Much like working hours, holidays and time off were balanced by self-discipline and a commitment to
their work:
“That’s another good thing about indie is everything is very flexible, everything is very negotiable and
you’re a small studio, you’re all friends, so holidays aren’t a problem. It’s not like we won’t get
holidays... ... When I used to work in the bars and all that kind of stuff, it was just - I’m going on holiday.
The boss would say, no you’re not, and then you’d just go yes I am. Then you’d just go and then you’d
come back and the job would be mysteriously waiting for you. But it won’t be the same with our
company”. Jack, Independent developer, Manchester
The telling part of this quote is last two sentences; although this developer articulates freedom and choice in holiday arrangements, it is clear that it is not solely the developer who determines his holiday time. This quote illustrates work time and in turn holidays are, to some degree, normatively controlled by peers with the development team. This connects to self-policing control strategies illustrated by in software work by Tapia (2004) and Kennedy (2010) that gave developers some form of responsible autonomy (Friedman, 1977) in return for commitment. However, rather than being uneasy with this form of control this developers accepts the level of commitment desired from other members of his team.

Additional illustrations of self-discipline and commitment can be found when developers refer to ‘crunch time’. Described in the previous chapter as representative of the culture of the sector and ‘common practice’ one developer showed how this was an illustration of commitment to occupation and a case of ‘earning your stripes’:

“There’s a bit of a macho culture, you wouldn’t look at videogame programmes and think there was a macho culture, but there is, there’s a macho culture going yeah, I pulled an all-nighter”. Alan, Independent developer, Manchester

This quotation contributes to evidence that crunching was not only enforced by organisational controls. However, in contrast to accounts of the normative controls augmented by anxiety about career prospects and future employability (Peticca-Harris et al, 2015) ‘crunching’ is something that is admired by their peers and is a demonstration of the possession of self-discipline and the commitment required to work in the sector.

This discussion has illustrated that although developers have indicated that freedom, autonomy and control were crucially important it is also clear that these were moderated by self-discipline and commitment. Developers are engaged in a career project to succeed in digital games and the illustrations of commitment and self-discipline have displaced the desire for freedom or autonomy, as discipline and commitment were seen by developers as a prerequisite for success. The individual’s commitment to his or her career must be seen in combination with the normative controls to motivate developers to take part in practices that blur work and life boundaries and lead to the acceptance of exploitative working conditions.
7.2.3 Enterprise and the opportunity of success

The values of self-discipline and commitment that these developers portray resemble the enterprising characteristics described by Du Gay (1996) and which are evident in society. The ‘ethos of enterprise’ and the opportunity of future success was apparent in the values and beliefs of developers. These opportunities and beliefs motivated developers in their work. In this part of the discussion it is intended to highlight the presence of enterprising characteristics in order to illustrate how these provide the motivation for developers to rationalise the challenging conditions and to resist the exploitative conditions.

The change in digital innovations has presented opportunities for developers to start their own businesses as self-employed developers. In chapter five developers discussed how this encouraged them to start their own business and how they were encouraged by successful technology entrepreneurs. Although the developers cited freedom and autonomy in their reasons for turning to self-employment they claimed that for them success was possible:

“They all live the dream of writing the next ‘Temple Run’ and there is something to it”. Victor, Owner of SME and head of games for a telecommunications firm, Macclesfield

Other developers highlighted the ‘lottery factor’ in digital games development in order to emphasise their own chances of success:

“There’s enough poster boys for the indie digital revolution that everybody thinks it’s feasible... ...There’s a big lottery factor in the whole market. So I think anything’s possible now, but it’s still quite stacked up against you just because there’s so much competition”. Alan, Independent developer, Manchester

Although noting the strong competition, this developer cites the ‘lottery factor’ involved in bringing a game to market. He eschewed the ‘lottery factor’ as a way to demonstrate high risk but instead used it to show that success was possible, even if the odds of success were low. The rationale behind this philosophy was that it wasn’t the game itself that lead to success but that it was rather a case of being in the right place at the right time. The successful title Angry Birds was used as an example of a ‘perfect storm’ and good fortune:

“There’s literally tens of thousands of games that are way better than Angry Birds that came out in the same couple of months that if they’d have got to the front they’d have been the Angry Birds. There’s no reason why they couldn’t have been. They were as good and as playable and as mainstream and had the characters that could’ve been the plushy toys and everything. But there was a perfect storm
for Angry Birds, it just meant that they were the game at the time”. Alan, Independent developer, Manchester

This mentality appeared to reflect political and media commentary that focused on the wealth of opportunity which was available to technology entrepreneurs. One developer who displayed this mentality when asked if he would consider full time employment in a games studio replied:

“Our business model if it takes off the way we are planning, I’m not sure a games company could offer a salary that would compete with the income we could potentially earn.” Bobby, independent developer, Chester

This collection of quotations offer an insight into the enterprising mentality of developers. However, to label this as optimism stimulated by the media would be inaccurate. As set out in the literature on the presence of business or entrepreneurial identities in creative workers (Hackley and Kover, 2007; Gotsi et al, 2010; Thompson, 2015) it is apparent that some developers see themselves as much as entrepreneurs as they are game developers. This is in contrast to some areas of the creative industries where cultural and bohemian values can be seen to lie at the heart of their self-perception (Eikhof and Haunschild, 2006). Some developers were very clear in describing their work as a business. This is important because it describes how developers understand their work. As Coulson (2012) points out, the way individuals understand their self-employed work stems from their motivation for doing it. The developers in this study clearly showed that self-employment for them is not a hobby or pastime but a job and a business, and they treat it that way.

This enterprising mentality from developers may partially explain their lack of resistance to exploitative practices. Entrepreneurial characteristics in the literature such as dedication and self-reliance (Beck, 1992; Down, 2010,) can be identified and enable us to understand why developers accept their long working long hours either networking, working additional jobs or ‘crunching’. Furthermore the entrepreneurial characteristic of risk taking (Beck, 1992; Down, 2010) in some respects explains attitudes towards self-commercialisation. Working without pay in a development studio or through unpaid placements or internships demonstrate the considerable risk that developers appear to accept in the hope of future reward. The account from one developer underlines this principle:

“Even before I got my degree I found out that TT was in the moment of an employment freeze, so they weren’t taking anyone on. So I offered just to get my foot in the door saying I’ll work for free for X amount of months until there’s a place open. And they went, ‘oh yeah, great, jump aboard,’ and that
was the time of Lego Harry Potter. So I worked for free for three months. I was trying to get first in line when there was an opening, and there was an opening at the end of August... It was very risky. I was penniless for a while. But it was worth it in the end, now I’ve moved out, got a great job. It’s paid off really well”. Ryan, Game developer, Wilmslow

Surprisingly this developer doesn’t spend much time focusing on the lack of employment opportunities in the digital games sector but talks enthusiastically of how he was rewarded for taking a risk. In this case the risk paid off for him as he secured employment, highlighting the potential benefit that an individual can gain from working for free. Despite shouldering the burden of risk (Randle and Culkin, 2009), developers appear to be satisfied to risk working for free in order to gain a better chance to secure a long term position in the sector.

The empirical work in this section has also found that developers saw themselves not only as game developers but as enterprising individuals. They showed that they could achieve success in the right circumstances. Success was feasible for the authors of such games as Angry Birds and Temple Run but the likelihood of that success was described as a ‘lottery’ rather than because of objective judgement of their own skills and abilities. This enterprising mentality partially explains a lack of resistance by developers to exploitative practices. In the previous chapter developers were seen to have accepted practices that led to long working hours on tasks such as networking or the carrying out of additional jobs and they were willing to engage in low paid or unpaid labour to achieve their objectives. What we see here is how these conditions are rationalised by developers. This is a demonstration of how developers take on entrepreneurial characteristics such as dedication, self-reliance and risk and it goes some way to explaining why developers are willing to submit to exploitative conditions.

7.2.4 – A sense of belonging to the occupational community

So far in this chapter we have seen the influence of individualistic values such as passion, commitment and enterprise values that act as motivations for developers to accept the challenging conditions presented. An additional lens to view this through is the individual’s connection with the social aspects of their work. In the context of the fragmented accounts of work that point to a demise of the collective nature of employment (Beck, 1992) and a weakened connection between work and social relationships (Foster, 2012) developers have felt that belonging to a community, and in turn having a social affiliation, was a value of significant importance and something that developers were keen to establish and maintain. As a result developers have sought out strategies to reconnect themselves with others in their occupational community.
Noting the lack of social affiliation and attachment to colleagues which results from working from home some developers have used ICT’s in order to reconnect with their colleagues as a way of recreating an office experience:

“Banter, we miss playing Call of Duty that’s the thing we’ve missed the most, is all the screaming and the swearing while we were playing Call of Duty. The banter we kind of do on Skype now. I just finished a call with my guys, we do, when we’re working we just leave it on as well, just so we can talk and go over stuff. It’s about 50 per cent of the office experience. I wish I had a way of... I think I maybe just need to set up a camera point at my desk where I can draw; the whiteboard stuff just isn’t really working for us. You need to be able to go, no, no, this you idiot, I mean that! So you need to be able to do stuff like that, and that kind of collaborative work’s a bit harder”. Alan, Independent developer

This quotation highlights the challenge of maintaining social relations while working from home. Alan felt that a consequence of self-employment is the lack of attachment with work. This has been identified and discussed by Felsted et al, (2005). Although this developer used ICT’s and social media to collaborate with his peers he felt that these methods were unable to fully recreate the office experience. This quotation demonstrates how collaboration, strong social ties and dialogue with colleagues is a key source of meaning in Felsted’s work. Other developers who responded have dealt with a lack of attachment in work by networking outside work. This suggests that normal conversations in an office environment were replicated at networking events as developers attempted to maintain their attachment with the occupational community. Additionally, their applications for additional funding to set up their own studio (rather than working from home) was partially motivated by a wish to reconnect with others and establish a collaborative environment with colleagues. However, the consequence of these strategies was the intensification of work for developers. This often resulted in long hours of work and additional ‘work’ tasks. It appears that exploitive working practices were a consequence of an attempt to maintain social relations with their community.

An additional example of this can be seen when developers were working for free (or a share of future profits). This passage underlines the value this developer places on being part of a team and being part of a firm, this motivated him to work - without pay:

“it kind of felt a bit removed, but there reached a point where they realised they couldn’t pay me, you know, weekly and they realised they were maybe tackling it the wrong way. So they kind of brought everyone together and said, look, you know, we’re all sacrificing this. So now, I feel more involved; now I feel like we’re part of a team. You know, we’ve all got our files on the website. I’ve got White
For this developer to be part of the project was more than a financial arrangement. The symbolism of naming him on the company website on social media connected him with others engaged on the project and gave meaning to his work. Payment was something he was prepared to sacrifice in order to achieve this.

To summarise, the discussion in this section has shown the importance that developers place on being part of their occupational community. The wider argument in this section suggests that, at least for these developers, work is an important place for social relations. This view aligns with that of the critics of the end of work thesis such as Doherty (2009) and (Granter, 2009) highlighting work’s continuing importance in individuals lives. However, where work is fragmented and work arrangements are changing this has presented a challenge for developers. In order to enhance their relationship with the occupational community and recreate social relations akin to an office environment, developers were willing to network and to seek funding in order re-establish spatial relationships or work for free to reconnect with their peers, even if this meant that they had to work harder or submit to exploitative conditions.

7.2.5 Summary

So far in this chapter the characteristics of work that provide meaning to developers have been examined and the ways in which developers draw on these to rationalise their own exploitative conditions have been analysed. In so doing a small body of literature in the creative industries has been verified. Developers have accepted exploitative conditions because of the self-actualising nature of their work and their passion for their occupation (Ursell, 2000; McRobbie, 2002; Ross, 2003). However, the empirical work has illustrated that developers drew on other aspects of the character of their work that provided some understanding of the need to rationalise the exploitative conditions.

Generally developers understood that there was a degree of commitment needed in order to be a successful developer. This led to the development of ideas and beliefs about how they would have to work to gain success. This mentality alongside certain normative controls which were discussed in the previous chapter led developers to accept the need to work long hours. Developers also felt that enterprise was an important trait or characteristic that they should demonstrate and they thought themselves to be much as business people as they were developers. Although the presence of
entrepreneurial identities in the creative sector is nothing new (Hackley and Kover, 2007; Gotsi et al, 2010; Thompson et al, 2015) by understanding themselves as enterprising individuals developers were prepared to adopt characteristics such as dedication, self-reliance and risk which shaped their attitudes towards working practices and which limited their resistance towards the taking on of additional jobs or working for free. Finally, in the context of accounts of new employment relationships which resulted in the demise of the collective nature of employment (Beck, 1992) and a weakened connection between work and social relationships (Foster, 2012), developers felt a loss of attachment with others and that was something which they felt was important because of the collaborative nature of their work. In order to establish or maintain social relationships, developers implemented various strategies to reconnect themselves with the occupational community and their peers by, for example, seeking out additional funding to obtain their own premises, networking and working for free. The intensification of their work and having to work for low pay were seen as acceptable sacrifices to regain social relationships.

The discussion in this section has enhanced our understanding of why individuals are willing to engage in self-exploitative practices. The accounts of Ursell (2000), McRobbie (2002) and Ross (2003), show that passion, self-actualisation and a love of their craft gives individuals a rationale to self-exploit, whereas in this section other values that give developers meaning in their work and encourage the acceptance of self-exploitive practices are brought to the fore.

7.3 The occupational community - The Sector and The Scene

So far it has been seen that individual beliefs, the values and the motivations of individuals have influenced the activities of developers. However, in so doing the value of the occupational community has been neglected. By combining an ethnography of networking events with interviews the aim is now to inform our understanding of how the collective motivations of the occupational community have contributed towards the shaping of values, the assumptions and the beliefs of developers. First, two contrasting networking events will be analysed. The first series of events represents a community of more established, business oriented members which I will call ‘The Sector’. The second represents a casual, informal community comprising of a motley crew of established full time developers, freelancers, students and graduates which I call ‘The Scene’. Aside from the different demographics and distinct membership, ‘The Sector’ and ‘The Scene’ were characterised by different approaches to overcoming the challenging environmental conditions. Firstly, the boundaries of membership and the established practices within these communities will be described. We will then seek to understand how the collective values of sociality, altruism and enterprise normatively control the values and
beliefs of developers. Finally, we will examine how these values often unintentionally contribute to the normalisation of self-exploitative practices.

7.3.1 “The Sector”

The first community I will outline is called ‘the sector’ due to its business orientation, the demographics of its members and the professionalism of the event. It aims to identify and expand on the key characteristics of ‘the sector’ in order to give context to this occupational community. The events, staged on the first Monday of every month, were part of a series of networking events branded as ‘Mobile Monday’, which was set up with the intention of fostering a community of mobile developers to discuss trends in the mobile sector and to share ideas. The event was organised to create a sense of occasion and to reinforce the credibility and professionalism of the event. It was staged in the function room of a high-end bar and restaurant in Manchester city centre. Each event was filmed by media students from a local university. The layout was set up to reflect a conference environment, a bar had been set up at the back of the room to promote networking whilst at the front of the room there was conference style seating where the guest speakers would present. The location, the filming of events and the organisation of the room reinforced my perception that Mobile Manchester wanted to appear credible and professional and, more importantly, serious.

The perception of credibility and professionalism was reflected in the dress code and the demographics of the event which reinforced boundaries of membership (Van Maanen and Barley, 1984). The unofficial dress code was smart/casual and the demographics were predominately male reflecting the gender imbalance in the software sector (Adam et al, 2006). Most were over 35 years old and were a mix of self-employed freelance developers and employees of local SME’s and large software firms. This perhaps explains why there were few ‘new’ developers at this event despite the free admission and the open access. The sense of occasion and credibility the organisers created was reinforced by the dress code and the demographics could have presented an intimidating environment for ‘new developers’. The older, more experienced, professional demographic of the event meant that less established developers may have felt out of place because they did not conform to the distinct membership of the group. Furthermore, the location was not a place where young people would visit and the organisation of the room was not relaxed, for example, the cameras gave an air of surveillance.

The business orientation of ‘the sector’ set the rules of behaviour at the event that established bases for actions (Van Maanen and Barley, 1984) but it also reinforced its exclusionary membership
boundaries. Attendees were encouraged to sign up prior to the event using the ‘Eventbrite’ website. This enabled them to be presented with a pre-printed name tag on arrival that included their job title and their business affiliation. This meant that developers could be recognised by their connection to a company. When entering the venue I was presented with a name tag that included my role as a researcher and my affiliation to the University of Manchester. This highlighted my detachment from the community and reinforced the perception that this could be intimidating for new developers. An illustration of how this could be exclusionary was some developers’ reaction to my role as a researcher. I was an outsider, not a software specialist, nor a developer so I wasn’t directly involved in ‘the sector’. Whilst some developers were happy to talk to me others indicated that conversations with me would not help them and there was little point in talking to me. This occurred on a number of occasions where I initiated conversations; after a short introduction where I explained the purpose of my attendance at the event some developers politely ended the conversation and started to look for developers that were presumably more beneficial for them to talk to. This made it clear to me that individuals attending the event had a defined purpose for attending. This was an example of the rules of behaviour at the event, it was instrumental and it was about “business”, hence the networking had to be of reciprocal benefit.

The topics at ‘the sector’ focused on the entrepreneurial role of the developer and innovation. It attempted to equip developers to find solutions to common problems within the sector. Guest presenters were representatives of large companies such as Blackberry and SME’s operating within the region although it is important to note that there was not a hierarchy here. One example of an event was ‘Living in a Multi-Platform World’ where presenters focused on the following:

- Which platform(s) should you develop for?
- What software tools are easy and which are difficult to use, and which give the best benefits?
- Should you be focusing on one platform, or many?
- What can platform owners do to make their platforms more attractive to developers?
- What is the % split of smartphones on the market ie: iPhone, Android, BlackBerry etc?

Predominately the focus of this event was about selling entrepreneurialism by encouraging developers to understand the evolution of their role and the place enterprising functions played within it. In essence, it sought to encourage developers to become ‘enterprising selves’ (Du Gay, 1996), by highlighting how the developer’s role had changed from making applications to one which now included the necessity to understand ‘the market’ and consider multiple roles including distribution, marketing and sales. An entrepreneurial characteristic of the event was innovation, an example of this

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being the ‘Demo Nights’ that Mobile Manchester regularly held. The event encouraged developers to bring prototype products to gain exposure, showcase their product and gain feedback from the community. Both events amounted to an encouragement to developers to understand what entrepreneurial skills were expected of them thus encouraging entrepreneurial activity through formal learning and job change (Du Gay, 1996). Importantly, the focus was not on creativity but on the flexibility in job roles and creating products that embraced the demands of ‘the market’ thus reflecting entrepreneurial discourse.

The selling of entrepreneurship encouraged developers to take on activities that would be considered enterprising, however the consequence of this was an intensification of work tasks for individuals in the community. The events were not so concerned with working smarter, or making things easier. They were about telling the community that they had to understand their changing role which meant encouraging them to be flexible in all elements of their work.

The community of Mobile Manchester that I have called ‘The Sector’ illustrates a part of the digital games community that is business orientated. The events had to be credible. They were focused on discussing innovation, and the evolving entrepreneurial role of the developer. The actions at this networking event represented a departure from an occupation characterised by self-expression or work as play (Thompson et al, 2015). In ‘The Sector’ the boundaries of membership and the rules of behaviour at the event were reinforced to encourage the development of entrepreneurial identities. However, the next section will present an alternative side of the digital games community by introducing ‘The Scene’.

7.3.2 “The scene”

This section contains an analysis of an alternative side of the digital games community which I call ‘the scene’. ‘The scene’ were attendees of a bimonthly event called Game Meet, one of a collection of meetups for individuals involved in digital games. When I attended this event the networking group was in its infancy. It started with 10-15 developers at the first meeting and quickly gained momentum to over 150 developers attending each event. This community represented an informal side of the sector where networking initially was about socialising first and business second, this represented the ‘rules’ (Van Maanen and Barley, 1984) which established the basis for activities at the events. Attendees fitted in the myth of the archetypal ‘games geek’, for them making games was about self-expression, and creativity and technological prowess were ‘cool’ (Peuter and Dyer-Witherford, 2005). This section aims to highlight the features of ‘the scene’ in order to give context to this community.
In contrast to ‘The Sector’ where the focus of the event was professional ‘The Scene’ was organic. This was reflected in the informal and casual bars the organisers chose to house the events. The unspoken dress code was casual and the demographic of attendees was generally younger. Most were in their 20’s and were a mixture of full time developers, freelancers, students and graduates. The gender balance was also different, although still imbalanced, there were significantly more females that attended this event. The informal nature of the event meant that the boundaries of membership (Van Maanen and Barley, 1984) was not as explicitly exclusionary as ‘The Sector’.

The events helped developers understand that social activity was important. Alcohol was a focal point of the event. The first few drinks were provided free of charge which encouraged people to have a drink. Attendees described the event as ‘a bit of piss up’, not something that you could say about the business orientated Mobile Manchester. ‘Party food’ such as free pizza, pies and chips were served, and towards the end of the event a DJ set encouraged developers to unwind. Also, the layout of the event encouraged social activity. An example of this was the different areas of the room where conversations took place. Developers would sit around bar tables, stand around the side or at the bar or have conversations outside of the venue while having a cigarette, this was a natural ‘overspill’ of the venue itself and where many valuable discussions took place. An illustration of the informal nature of the community was highlighted when the location changed. Once an event took place in a hotel conference venue, where the layout was in stark contrast to previous events. The lighting was bright and there were several large circular tables set up around the room. This contrasted with the casual, relaxed style of other venues. The choice of venue made a crucial difference to the ambience, the layout of the room meant that the opportunity to mingle was limited because the organisation encouraged developers to be seated. The lighting was so bright that any movements by developers were clearly visible and that seemed to create a level of self-consciousness. The smoking area was some distance away so natural overspill and flow became limited. The outcome was that sociality was subdued at this event in comparison to that of previous events.

In support of the informal nature of the community each event had a ‘twitter wall’ to encourage interaction and include others who weren’t attending, developers not present regularly commented on the tweets via the event hashtag. The tweets sent to the twitter wall acted as a discussion point for the event as interesting tweets that reinforced the established rules of behaviour were regularly announced by the organisers. The twitter wall encouraged interaction but crucially also established a social order by introducing ‘heroes’ or ‘stars’ in a relaxed and social way. Organisers would refer to
the heroes of the event asking them to comment on tweets sent to the hashtag. Organisers used this forum to highlight the achievements of star developers and celebrate them. In contrast to Mobile Manchester where guest speakers were seen as equals in the community, ‘star’ developers were often revered for their experience of enterprise in the sector thus highlighting their part in the development of a successful game (interestingly success was defined by one’s contribution to a game that was released rather than one that was successful in terms of sales). In essence, a social order was being created to establish the construction of an occupational identity (Lawrence, 1998) with the aim of influencing developers to take on the social and enterprising characteristics of ‘star’ developers.

The hierarchy of Game Meet was reinforced by rituals that set the terms of what was valuable knowledge and indulged geekiness. A digital games themed ‘Pub Quiz’ allowed developers to interact with others using the vehicle of a common interest and this facilitated the interaction among members of this community. The quiz was centred on creating a competition to demonstrate a knowledge of games where the winners were celebrated as ‘the ultimate geeks’. However, this practice also had implications for the social order of the group. The questions were set by organisers and ‘heroes’ within the community. Most questions were so obscure that only the person setting the questions would know the answers. This allowed the organisers and heroes to reinforce their position as ‘star’ developers. Their experience of enterprise was reinforced as they were presented as being more knowledgeable than the rest of the community. However, this ritual had implications for the boundaries of membership (Van Maanen and Barley, 1984) as it was somewhat exclusionary. Individuals without the specific knowledge and experience of the sector valued by prominent members of the community were side-lined. I was not a games expert and I found all but one of the questions very difficult to answer. This made me question my legitimacy as a member of the group and I imagine it had a similar effect on those developers with only a limited knowledge. However, it would have had the reverse effect on those with knowledge valued by prominent members of the community.

As Game Meet matured the events began to follow a more structured pattern and new practices took place which were more reflective of the practices at ‘the sector’. Consequentially, this changed the rules on how developers at ‘the scene’ considered their occupation. Previously, the focus had been on sociality first and business second. However, in later events business become more established as an expectation of appropriate behaviour. Question and answer sessions with new ‘star’ developers, journalists and technical experts were brought in alongside the ‘pub quiz’ and the DJ’s set. The inclusion of a question and answer session represented an attempt by the organisers to bring an
entrepreneurial focus to the event. The Q and A session provided developers with practical advice to prepare them for work in the future. The advice covered the themes of discussion in ‘The Sector’ and ranged from exploiting new technological capabilities to self-marketing. This lead to the event taking on a hybrid function mixing informality with business. Developers who attended embraced this change, welcoming the progression of the event as a change in what was considered ‘good work’ (Van Maanen and Barley, 1984) in formulating a new ‘bounded work culture’ (Lawrence, 1998) of the occupational community.

One illustration of the changing focus of Game Meet was the evolution of the sponsors who encouraged enterprise. At the launch of Game Meet the sponsors were local solicitors. Initially it struck me as strange for solicitors to sponsor an event for game developers. However, one of the organisers explained that intellectual property and contract law were areas that developers had to consider when making a game and the solicitors agreed to offer initial advice free of charge in exchange for exposure to the community. In later events sponsorship by TIGA (a trade association representing the UK’s games industry), Sony and Microsoft contributed to a change in the focus of the event from a social meet up to one focused on enterprise. While TIGA and Sony were on the periphery of the event it was the inclusion of Microsoft that encouraged and stimulated the entrepreneurial activity. As well as becoming visually prominent because of the branding scattered around the event the introduction of a ‘Microsoft Technical Evangelist’ called Lee Stott gave members of the group a new hero to revere. Lee regularly talked about the qualities that the Windows platform possessed over its competitors, highlighting the ease of access and the simplicity of developing on this platform. Lee Stott’s credibility at the event was supported by event organisers as he took over a leading role in some of the rituals. In the ‘pub quiz’ Lee would act as quiz master and deliver the prizes to the winners. It was clear the objective of this was to present Lee as a ‘hero’. As a result of this status Lee’s opinion and beliefs were valued by other developers in the community. He was promoting enterprise, suggesting that developers should develop their own game, and that they should do this on the Windows platform.

The introduction of Microsoft suggested a contradiction of values among developers in the sector. I saw Microsoft as the epitome of corporates in this community. I thought that this would undermine the sovereignty of the group because of the anti-corporate culture of the sector (Deuze et al, 2007). When citing reasons for turning to independent development many saw being ‘independent’ as a rejection of the control exerted by large firms such as Microsoft. However, this was an example of the occupational community supporting an alliance that reinforced the sovereignty of the group.
Despite my initial assumptions that developers would be critical, I found that developers accepted and were indeed enthusiastic about the evolution of the event as it gave them more legitimacy as a community of developers. The community of Game Meet which I have called ‘the scene’ illustrates a part of the digital games community that is both informal and casual, but it is also about enterprise. The initial practices at Game Meet were based on establishing and setting rules that were the basis for developers’ behaviour that primarily encouraged social activity but they also encouraged ‘geekiness’. Latterly, the community turned towards enterprise replicating the themes of ‘the sector’ by encouraging enterprise.

To summarise, in this discussion I have presented ‘The Sector’ and ‘The Scene’ as two contrasting parts of the digital games community. ‘The sector’ is a small community that attended Mobile Manchester which was both professional and business orientated. Innovation and enterprise were at the heart of conversations in ‘the sector’. It was a professional event for established developers who collectively understood that the market had changed and the purpose of the community was to help individuals adapt to these changes. In contrast ‘the scene’ represented an alternative perspective, this was social, friendly and more ‘fun’. For this community the aim was to have a good time, however in the later events the focus changed towards promoting enterprise. This summary of two very different parts of the digital games community has illustrated the culture, the membership and the priorities of these communities. I would like next to discuss how both events influenced the values and beliefs of individuals within the occupational community, by reflecting on how the practices in both communities served to socialise members to adopt the accepted forms of behaviour which have led to a form of control that influences member’s actions.

7.3.3 Sociality and Community

Both occupational communities placed significant importance on sociality. In this sense sociality was ‘catching up’ (Wittel, 2001), picking up crucial information through the exposure to ‘industry gossip’ on the ability of potential collaborators, on appropriate skills and on future opportunities. This amounted to not only ‘know how’ but the accumulation of ‘know-whom’ and tacit knowledge and the ‘ears and eyes on the informal market for jobs, projects and relationships’ (Grabher and Ibert, 2006:262). Sociality was seen by members as a vehicle to strengthen the occupational community as it assisted in establishing a whole community. However, organisers at ‘the sector’ suggested that the sociality was instrumental, they created an environment that facilitated the sharing of ideas, talking about industry development with the purpose of acting as an intermediary between potential
employees and employers and sociality was central to achieving this. However, sociality or ‘catching up’ for ‘The Scene’ was primarily to establish a sense of a collective identity. The organisers felt that sociality was important and a way to form and be part of a community amid hostile environmental conditions suggesting that marginality has influenced the formation of both ‘The Sector’ and ‘The Scene’ (Salaman, 1974).

Sociality underpinned practices at both events and was a means of creating a community. There was evidence of a ‘community of practice’ (Lave and Wenger, 1991) where learning and identity formation took place. ‘The Sector’ was a clear example of learning where individuals met to share experiences, knowledge and employment opportunities. This was underpinned by practices such as demo night and guest presentations. However, because of the exclusionary nature of ‘The Sector’ novices were less likely to take part. In contrast, at ‘The Scene’ the ‘community of practice’ was slightly different, learning took place but it was more focused on a ‘gradual construction of identity’ (Lave and Wenger, 1991) and demonstrating sociality as a value that was important to the community. This was policed through rituals such as the twitter wall, the pub quiz and the actions of heroes. Sociality was integral to the development of both communities of practice; with ‘The Sector’ it was a means of achieving an effective community of practice whereas at ‘the scene’ it was about socialising expected behaviour.

In both groups developers understood that sociality was an important trait to adopt. An illustration of this was found in conversations that I had with a developer who was a regular attender at the ‘the sector’ but who also visited ‘the scene’ on one occasion. This developer described it as a personal weakness that sociality did not come easy to him and highlighted a success story of a friend who had gained opportunities though embracing the sociality:

“I know there’s another lad who we used to work with who’s been much more successful at that and he’s much more a biz-dev kind of guy than I am, and he’s really good at blagging. So he goes to conferences and goes to the one in Cologne or Game Horizon and Casual Connect and he says he’s still getting work from actually turning up to those events and getting his name out”. Alan, Independent developer, Manchester

This quotation highlights the importance of sociality in finding work by using the example of his friend as a persuasive rhetoric to encourage himself to display this characteristic. Although the developer distances himself from this role expectation by portraying his friends networking as ‘blagging’ (gaining work by deception), he is also highlighting his disappointment at his inability to effectively demonstrate sociality. Despite distancing himself from his friend this developer highlights a belief that
connecting with others is important in finding work and developing his career.

Developers adopted illustrations of sociality at ‘the scene’ in a bid to develop relationships with other members of the community. Comments read out from the twitter wall demonstrate social interaction with others in the community beyond instrumental forms:

“Losing all the quizzes in style and how devilishly handsome the hosts are” #GameMeet. Developer, Game Meet

This example demonstrates sociable and friendly language but also shows that this developer is embracing the social nature of the event and displaying this to the community. When organisers read this out it socialised others towards this value and encouraged developers to adopt this characteristic.

This analysis suggests that both communities can be regarded as a close knit group of individuals who share a mutual belief in the importance of sociality and community. In some respects, this relates to a group likened to the notion of Gemeinschaft, a community evolving around shared norms and values cemented through socialisation. This is in contrast to an interest driven and deliberate association of Gesellschaft (Grabher and Ibert, 2006). In the face of challenging market conditions ‘communities of practice’ have emerged in order to strengthen learning but also sociality and community. Within both the ‘communities of practice’ sociality is demonstrated but expressed in different ways. For ‘The Sector’, sociality is present but it is more instrumentally focused and has a clear objective of helping to achieve a better way of working for individuals and finding work. For ‘The Scene’ sociality was more an organic way of being, a way to act, and a way of creating a community. Either way sociality is important for both communities. The importance of sociality and community provide an alternative lens to the description of networking based on personal gain demonstrated in the previous chapter. Networking isn’t solely about an individualistic pursuit of work, it’s also about demonstrating sociality with one’s community in order to respond to industry challenges. This provides an additional rationale to understand why developers extend their working week in order to network. The demonstration of sociality is seen as an important value for developers to uphold as it maintains their ‘community of practice’.

7.3.4 Altruism

In order to keep the occupational community strong developers displayed altruism within their communities in order to assist others to equip themselves for future success. This section will illustrate how moral standards and what was accepted as ‘good work’ were an important aspect of the bounded
work culture (Lawrence, 1998) of the occupational community.

One senior member of the ‘the sector’ highlighted the altruistic nature of ‘the sector’ and a willingness to help aspiring developers:

“I’m meeting next week in London a kid who is 19 and just out of college who’s started a little educational gaming outfit and wanted to meet and I said “Look I don’t have too much time but if you want to pop round for coffee then that’s fine” and that is not because I’m a particularly nice person, it’s because I think the industry per se tends to be fairly welcoming”. Victor, Owner of SME and head of games for a telecommunications firm, Macclesfield

Although this developer makes a point of not describing himself as particularly altruistic it is clear he is displaying himself as an example of the altruistic nature of the occupational community. In this demonstration of altruism, altruism is present because there is no immediate reciprocal benefit. However, this example of altruism presents a contrast to the exclusionary boundaries of membership at ‘the sector’. In one sense this demonstrates that members of the community are enthusiastic about engaging in ‘good work’. Victor is describing an instance where he, as an experienced member of the community is willing to help the ‘little educational outfit.’ He is motivated by a sense of social responsibility amid challenging conditions.

Altruism was evident in both ‘the sector’ and ‘the scene’. A crucial element of the ‘communities of practice’ was assisting others in learning about technological capabilities, new skills and market knowledge, and gaining feedback from others on prototype products. Another example of altruism was when developers offered advice concerning funding opportunities. When I (unusually) met a member from ‘the sector’ at ‘the scene’ who wished to seek advice on funding, as an established member I was able to introduce him to a developer who happily obliged by offering funding advice. This showed me the confidence I had in the altruistic nature of ‘the scene’ as I had facilitated a link between the two developers. I did this with confidence because I was sure that an established member of the scene wouldn’t turn down the request for help. These examples add to the evidence concerning the demonstration of a community of practice where learning takes place through interaction with the community and where altruism plays a central role in the character of the community. I felt that in ‘the scene’ the development of the community of practice was not necessarily intentional but something that occurred as an altruistic outcome of the social process.
Altruism also fed through into online activities away from the networking groups. Members of the ‘the scene’ regularly posted job opportunities on the twitter wall using the networking event hashtag in order to communicate opportunities.

“Attention jobseekers - Team 17 is looking for a programmer for Web/Flash games #gamemeet”
Attendee, Game Meet

This theme was also prevalent in ‘the sector’ as a recruitment agent who helped organise the events explained how social media was used to communicate opportunities to others due to a perception that jobs were hard to find.

“I know on Twitter, there seems to be this stigma attached to jobs so they all help each other out. So if someone’s looking for someone and they put it on Twitter they get like 12 or 13 re-tweets”. Sabi, recruitment agent, Wilmslow

The evidence presented here suggests that developers illustrate their concern for others within their community by showing evidence of non-instrumental activities that ‘help each other out’. Whereas this reinforces the identification of ‘communities of practice’ there are also wider implications on what being a developer means within these communities. Good work was accepted into the bounded work culture of both communities and evidenced within the practices of developers. This contradicts critiques of contemporary work driven by individualism and self-interest (Beck, 1992) and supports evidence of moral motives and principles arising from a community obligation that are evident in accounts of cultural entrepreneurialism (Banks, 2007; Coulsen, 2012) further reinforcing the Gemeinschaft in these occupational communities. However, questions can be raised regarding the lengths that developers would go to demonstrate this characteristic. The willingness to ‘help out’ others for the good of the community may result in an ‘economy of favours’ (Ursell, 2000) which partially explains why developers appear to have limited resistance to working without pay - or to working long hours. It seems that the occupational community socialises developers to understand that work is about putting others before themselves and that is representative of ‘good work’ despite its self-exploitative outcomes.

7.3.5 Enterprise

So far this section on the occupational community has highlighted that a significant emphasis was placed on the values of sociality and altruism, values which contradict the individualistic accounts of contemporary work (Beck, 1992). However, this section aims to demonstrate a paradox within the occupational community. In contrast to the collective values of sociality and altruism there was also
a significant emphasis on the ‘individual’ developing characteristics of ‘enterprising selves’ (Du Gay, 1996) in order to enhance their own career and achieve success in the sector.

In the description of events in this chapter I have already spoken of the ‘selling of entrepreneurship’ within both occupational communities. In ‘the sector’ developers were encouraged to redefine their work role and embrace enterprise. At ‘the scene’ later events reflected practices of ‘the sector.’ Enterprise became a focal point reinforced by questions and answer sessions and the hero status given to developers displayed entrepreneurial skills.

An illustration of the practices at ‘the scene’ can be found by examining the influence of event organisers who encouraged entrepreneurial activity. An excerpt of an email, which was sent to members of the community, highlights the enterprising characteristics which the organisers tried to encourage-

**Hello Everybody...**

*GameMeet is undergoing some rapid expansion and we are going to be bringing you some amazing events in the future so keep following the twitter! and don’t forget Motionless Task are currently working with Indie studios on a new offer. We will do your Music and Sound effects but we won’t charge you an upfront fee. We simply take a small percentage of the takings IF there is any. It’s a no risk offer, so if you are interested then get in touch*

*If you have any suggestions for the list then let us know. It is growing every month and is a great way of locating the person you need from the local area.*

*Bobby*

*Motionless Task*

In this email the organisers communicated their own ‘enterprising’ activity to the rest of the community by indicating their willingness to work for a future share of the profits. By doing this they were encouraging others to use members of the occupational community to fill skills gaps in their own enterprises. However, implicit in this email is the normalising activity of the entrepreneurial clichés of risk taking, self-promotion and bravery (Down, 2010) as they encourage working for free. Developers with prominence in the community, by their compliance, recommend this behaviour and when this
happens they are at best legitimising this practice, at worst they are recommending it to others in the community.

The selling of enterprise in ‘the scene’ translated into enterprising activity amongst developers who openly marketed themselves during the event by promoting their own skills. Individuals would regularly use smartphones and tablet computers to visually demonstrate their abilities to others in the community. Self-promotion was extended to the twitter wall as developers used this to showcase their skills to the occupational community,

“#TheScene is go - grab me if you need story, dialogue and narrative goodness!”

“#TheScene lovely meeting everyone, shame I’ve had to leave early, remember if anyone needs any audio doing I’m always free ;))”.

“#TheScene gone now, had a super time! Follow us if you need programmer or marketing skills!”

“Meeting so many people at #TheScene made me realise how much I need a mac & iOS device. So many more people to market to”.

This represented an acceptance of enterprising behaviour within the community and a common understanding that working for free was a way of building reputation (Randle et al, 2015). In contrast to a reluctance or uneasiness with this entrepreneurial activity displayed in some areas of creative work (Stanworth and Stanworth, 1997; Coulsen, 2012) this was an example of highly individualistic and entrepreneurial characters resembling a popular depiction of creative entrepreneurs (Leadbeater and Oakley, 1999; Hesmondhalgh and Banks, 2009). What is important here is that these developers appear to be responding to the rules set within the occupational community and adopting enterprise as part of their identity.

This latter discussion has illustrated how the culture of the occupational community has influenced and shaped the adoption of enterprising characteristics. This translated into a form of collective and self-driven control (Kennedy, 2010) as individuals were influenced by the established practices and rules of the occupational community resulting in the adoption of enterprising as normalised behaviour representing occupational control (Van Maanen and Barley, 1984). The acceptance of enterprising characteristics offers an explanation as to why developers might accept exploitative practices connecting with the work of Umney and Kretsos (2014) who argue that enterprise sets up barriers to the collective contestation of poor working conditions. Being ‘enterprising’ means risk-taking, putting
effort into self-promotion and commitment to their occupation which is all normalised and
encouraged by the occupational community.

7.3.6. Summary
In this section I have attempted to analyse how the occupational community has shaped the values,
assumptions and motivations of developers. In order to do this I have highlighted the activities of two
occupational communities which I have called ‘the sector’ and ‘the scene’. The sector was business
oriented, market focused and explicitly focused on enterprise within the sector. In contrast ‘The scene’
was more relaxed, casual and informal however in the later events the emphasis changed as
enterprise became a significant part of the event. In the context of changing market conditions the
occupational community has found ways of reacting in order to adapt. Developers are socialised to
show care for others in their community by demonstrating the collective values of sociality and
altruism but also they are taught to demonstrate the individualistic values of self-promotion and
enterprise.

Sociality strengthened the occupational community by facilitating ‘communities of practice’ in order
to share ideas, knowledge and opportunities in both communities. In ‘the sector’ it was clear that
sociality helped to equip developers for work amid changing market conditions. In ‘the scene’ sociality
and the community of practice taught developers how to behave and acted as an influence on identity
formation. In both communities sociality was encouraged and seen as a vital way to keep the
occupational community strong and it was acknowledged as vital for individual success.

Altruism taught developers that have a concern for others that this represented ‘good work’. This was
demonstrated in both communities where examples of goodwill occurred at networking events and
permeated onto social media. Altruism strengthened the occupational community as developers
would contribute to the learning of other members of the group supporting the ‘community of
practice’. In contrast with the accounts of contemporary work that highlight self-interest and
individualism (Beck, 1992) as a governing principle this highlighted a sense of community obligation
that was necessary for developers to adopt.

This section then presented a paradox, rather than a polarised contradiction in the occupational
communities. Alongside the collective values of sociality and altruism the encouragement of
enterprise promoted individualistic values. Both communities ‘sold entrepreneurship’ in different
ways. For ‘the sector’ it was upfront and unambiguous. It was clearly encouraging developers to be
enterprising. However, in ‘the scene’ the encouragement of enterprise that was only demonstrated in later events were more subtle but maintained the intention of encouraging enterprising behaviour.

In this section I have sought to show how the occupational community socialises developer’s motivations towards sociality, altruism and enterprise. However, it is important to note the unintended consequences of these motivations on individuals in the sector. I suggest that these values lead to the normalisation and acceptance of self-exploitative practices. Sociality is translated into a desire to network and be active within the community of practice. The disadvantage of this is that it intensifies work for developers and leads to longer hours above and beyond what might be deemed as a ‘regular’ working week. Altruism means that developers help others in the occupational community. This provides an additional explanation as to why developers are willing to accept work without pay as their obligation towards the community means that developers are willing to put themselves out for the good of others. Working without pay or for a future share of the profit and long working hours may also be explained by the communities’ focus on enterprise as prominent members of the community place value on and endorse types of ‘entrepreneurial activity’. Furthermore, the desire to be enterprising gives developers a rationale to work in periods of downtime as enterprising activity permeates across different communication channels such as social media. Thus developers can network at any time, even when they are ‘off work’.

7.4 Conclusion

In this chapter I have set out how developers rationalise self-exploitative practices. In order to do this I have examined what being ‘a developer’ means for individuals in this study. It has been found that a passion for games, commitment, enterprise and belonging to the occupational community acts as a control mechanism that guides behaviour and limits resistance to exploitative conditions. This adds a novel contribution to knowledge that extends our understanding as to why individuals accept exploitative conditions. Although previous research has highlighted how self-exploitation is rationalised by self-actualising work and a passion for the occupation or a love of their craft, in this chapter additional individual motivations that contribute towards the acceptance self-exploitative practices have been explained.

An additional contribution to knowledge can be found in the second part of this section. An ethnography of two distinct occupational communities revealed the collective motivations, values and beliefs that pervaded the occupational community. These motivations, values and beliefs represented accepted forms of behaviour within the ‘communities of practice’ and encouraged sociality, altruism
and enterprise and adopted these values in their work practices. It finds that the unintended consequence of these values was the socialisation and normalisation of self-exploitative practices as networking which intensifies work, working long hours and working without pay and were demonstrations of developers taking on the beliefs and norms of the occupational community.

In this chapter it has been shown how forms of individual and collective control contribute to the acceptance of self-exploitation. More broadly, it highlights a contrast to the bureaucratic controls that have been prevalent in accounts of software work (Kraft and Dubnoff, 1986). Furthermore, it provides an account that contributes towards the literature on the digital gaming sector and to the specific focus on entrepreneurialism.
8.0 Conclusion

8.1 Introduction

In the context of heroic accounts of enterprise charted in media, political, and academic discourse alongside notions of a ‘creative class of entrepreneurs’ this thesis has investigated a cohort of digital game developer’s experiences of self-employment in the north west of England. By adopting an interpretivist approach involving in-depth interviews and ethnography of local networking events this research pointed towards an exploitative nature of enterprise. Inhospitable labour market conditions found developers forced into involuntary self-employment. However, rather than refer to challenging conditions developers opted to display differing articulations of ‘choice’ to explain their reasons for becoming self-employed citing their ability to be ‘masters of their own destiny’ alongside narratives of freedom and independence from value chain relationships.

Developers’ experiences of self-employment were assessed in the context of the Pongratz and Voß (2003) ‘entreployee’ framework. It argues for the emergence of a new characteristic of Pongratz and Voß’s (2003) conceptualisation. While the authors discuss self-rationalisation as one of the key features of the ‘entreployee’, empirical work suggests that developers have to go beyond this feature and further redefine their capacity in the workplace and have an acceptance or willingness to self-exploit or be exploited. Developers appeared accepting towards exploitation in two ways, working for free, to gain experience or exposure in the sector, or working well beyond what may be seen as a ‘normal’ working week in order to meet their employer’s demands or enhance their chances of success.

Faced with limited accounts that explain why individuals self-exploit this thesis found that individualistic values of passion for their work, self-discipline, enterprise, and belongingness acted as a control structure that rationalised self-exploitative activities. Furthermore, the occupational community socialised developers towards values of sociality, altruism and enterprise. An unintended consequence of this was the normalisation of self-exploitative activities.

The purpose of this chapter is to highlight the main contribution of each chapter emphasising the contributions to existing literature that were found in chapters 5, 6 and 7. It will also highlight the limitations of this study and offer opportunities for further research.
8.2 Summary of Thesis

Chapter 1 introduced the context of the research as enterprise and the digital games sector. In 1998 the inclusion of software and computer services in the newly formed creative industries enabled the New Labour government to present an economically viable sector centred on creativity (Garnham, 2005). The sector has become associated with notions of freedom, autonomy and choice (Reeves, 2001) and a drive for entrepreneurial skills (Hesmondhalgh and Banks, 2009). This has supported the hype and optimism surrounding the ‘Cool Britannia’ branding of New Labour and has gone some way to conceptualising a ‘creative class of model entrepreneurs’ (Coulsen, 2012). Following the financial crisis in 2007-8 the newly elected Conservative led coalition government have rejuvenated former Prime Minister Thatcher’s enterprise polices. They used the creative sector to emphasise the opportunities available to those who engage in enterprising activity. This ‘reheated’ policy was supported by political and media rhetoric reflecting a force feeding of enterprise.

A body of academic analysis has celebrated this enterprise culture highlighting the self-made heroic entrepreneur centred on a romanticised view of a character with the qualities of initiative, risk-taking, flexibility, independence, imagination, hard work and an internal locus of control (Gibb, 1993). This has been supported by conceptualisations of entrepreneurial career forms such as ‘boundaryless and portfolio careers’ (Handy, 1990; Defillippi and Arthur, 1996). However, following calls for more critical approaches to enterprise, an emerging body of literature has demonstrated that entrepreneurial career forms have resulted in more fragmented work (Marchington et al, 2005) and increased anxiety (Sennett, 1998). Moreover, Kautonen et al, (2010) found that ‘forced’ self-employment has developed amid the erosion of conventional organisational structures. In response to changing market structures Pongratz and Voß (2003) and Pongratz (2008) have highlighted the need for individuals to reconsider their role in the workforce in the context of changing market conditions, which has resulted in a ‘society of entrepreneurs’ where individuals take on more responsibility and redefine their work role in order to maintain their economic existence.

The focus this study is the digital games sector. Despite considerable research in other areas of the creative sector, the digital games sector is comparatively under-researched considering its economic importance and its symbolic significance. Recently the sector has undergone major changes. Government U-turns on tax concessions (Keynote, 2014), the changing demographic of users (Prato et al, 2010), a lack of predictability of success and global relocation of production have combined with changing business models and technological innovations. These factors have led to a sector characterised by instability and change. This has been reflected in working practices with a changing
constitution of firms and a trend towards smaller development teams (Skillset, 2011). This can partially be explained by the lowering of barriers to entry brought about by technological innovations. Third party game developers are now able to create and bring to market their own games at a significantly lower cost both in terms of development time and finance (Bergvall-Kåreborn and Howcroft, 2013). This leads us to the primary contribution of this thesis. Given the sector’s economic and symbolic significance, the growth in entrepreneurial activity in this area, there is currently a gap in knowledge surrounding entrepreneurial practices in the digital games sector. Most literature concentrates on the relationships between console game manufacturers which doesn’t adequately reflect changing employment trends in the sector.

Chapter 2 debated the broad issues surrounding contemporary careers. End of work theorists point to the existence of more individualist society as the nature of capitalist production has changed contemporary work for many resulting in the fragmentation of work, insecurity and a loss of connection with work (Beck, 1992). However, another body of literature suggests that the connection with work exists but that it is gained from sources such as occupational communities (Salaman, 1974; Parry, 2003) external forces in their environment (Svenningsson and Alvesson, 2003). The implications of this are that individuals are driven to find their connection with work and are engaged in being more reflective regarding their own subjectivities due to the pressures of contemporary capitalism.

Although some have challenged the changing nature of work and employment relationships (Pollert, 1988; Doogan, 2009) it has been suggested that the traditional models of employment relationships characterised by the Fordist model of production have been replaced, at least to some degree, by contemporary career forms. ‘Boundaryless’ and ‘portfolio careers’ have been presented positively alongside notions of flexibility, mobility and autonomy contrasting more sceptical accounts of protean careers highlighted by Sennett, (1998) and Marchington et al, (2005). Closely associated with these career forms are entrepreneurial and enterprising careers. The growth of these types of career forms has been linked to an ‘ethos of enterprise’ consuming society (Du Gay, 1996). On the other hand, our attention has been drawn to the ‘push versus pull’ dichotomy of self-employment where one class of entrepreneurs, that have significant amounts of education or cultural capital, being pulled by the intrinsic benefits of self-employment and another being pushed into self-employment by economic necessity and insecure employment (Bogenhold and Stabler, 1991).

Self-employment by necessity or due to insecure labour market conditions is prevalent in Kautonen et al’s, (2010) concept of ‘involuntary self-employment’ individuals are driven to self-employment not
by choice but because employment opportunities are unavailable to them. This broadly links to ‘society of entrepreneurs’ and the conceptualisation of ‘the entreployee’ (Pongratz and Voß, 2003; Pongratz, 2008) as workers increasingly face the need to act as entrepreneurs, redefining themselves in the market in the context of changing market conditions. This conceptualisation argues that individuals are forced to accept an increasingly intensified nature of work which in turn leads to challenging work conditions. This contrasts sharply with the supposed attractions of freedom, flexibility and autonomy in contemporary careers.

Chapter 3 focused on the unit of analysis in this study, the creative industries and more specifically the digital games sector. The nature of production in the creative industries has resulted in a loss of autonomy for some workers due to strategies imposed to deal with risk and unpredictability. Strategies to manage risk and unpredictability in the creative industries appear to be relevant to the software and digital games sector (Tschang, 2007; Martin and Deuze, 2009). A review of the labour process in the software sector has revealed that control in the sector has been predominately governed by routinisation, standardised work practices, and divisions of labour, or at least it has been polarised by high skill and low skill work (Marks and Scholarios, 2008). However, an emerging body of literature has discovered normative methods of control contrasting more traditional bureaucratic methods. Kennedy (2010) points to ‘collective self-regulation’ accentuated by peer and self-driven control. Furthermore, team working principles such as Agile production emphasise flexible, but tight, self-organising teams (Hodgson and Briand, 2013). Culture management attempts to bind the hearts and minds of employees to the values of their organisations (Perlow, 1998; Kunda, 1992) but also makes working long hours glamorous and ‘cool’ and is reinforced by success stories of individuals within the sector (Tapia, 2004). Collective self-regulation, agile production, and culture management all appear to give workers freedom which conforms in some respects to the concept of responsible autonomy (Friedman, 1977). However, Barrett (2005) suggests that these are not understood as control strategies as they are delicately masked.

Work in digital games appears to be controlled by utilising similar normative control mechanisms that are visible in software work. The collective understanding regarding affective attachment and the meaning of work acts as a control mechanism (Thompson et al, 2015). Furthermore the ‘work as play’ model appears to mitigate challenging conditions (Peuter and Dyer-Witheford, 2005). Alongside attachment to work, the anxieties about employability and future career prospects act as a neo-normative control mechanism that encourages developers to accept extreme work conditions (Peticca-Harris et al, 2015). Although work in digital games appears to be under some degree of
technical control (Schumacher, 2006), in the context of less standardised and routinised methods of control (Cadin, et al, 2006), subjectivities are increasingly managed by normative controls.

The focus of the chapter then turned to an understanding of how work in the creative industries and the software and digital games sectors have mirrored the changing technological, structural and economic conditions highlighted in chapter 2. This has led to creative work being characterised by freelance work, outsourced labour and project work (Randle and Culkin, 2009). It argued that the insecurity and the fragmentation of work described by Sennett (1998) and Marchington et al, (2005) are apparent in the creative sector emerging from changing labour market conditions (Hesmondhalgh and Baker, 2010). These have been encouraged by the media and political rhetoric encouraging ‘cultural entrepreneurialism’ (McRobbie, 2002).

‘The entreployee’ (Pongratz and Voß, 2003) is relevant to the creative sector as this new form of labour supply finds individuals forced to redefine their capacity in the workplace amid changing macro and labour market conditions. Research by Haunschild and Eikhof (2009) and Bergvall-Kåreborn and Howcroft (2013) has used ‘the entreployee’ to illustrate how workers have taken on entrepreneurial functions amid changing labour market conditions. Building on this, it then assessed entrepreneurial activity in the context of the Pongratz and Voß (2003) framework. The analysis of cultural entrepreneurialism highlighted further evidence to suggest that the positive accounts of enterprise conceal the exploitative nature of work in the creative sector. This raised questions with regard to nature of entrepreneurism in the digital games sector and why individuals accept exploitative conditions which urgently required empirical exploration.

Chapter 4 illustrated the case and methodological justification that underpinned this enquiry. It emphasised that, at the time of the research, the sector was one in transition amid a series of studio closures. Large games firms had internalised their production and concentrated on a smaller number of games in response to the arrival of a new generation of consoles. The withdrawal of tax concessions made the UK sector less competitive in comparison to competing countries such as France, Ireland and Canada (BERR, 2007). Furthermore, management failures and the growing strength of the US dollar exacerbated these tensions and further contributed towards the large scale closure of studios in the United Kingdom (Nesta, 2008). The outcome was the formation of leaner, more adaptable studios who planned for project gaps and used outsourced labour to deal with the changing nature of the sector (Nesta, 2008).
In this context, from 2004 to 2009, employment in the sector declined from an industry high of 9,400 in 2004 to 7,000 in 2009 (Skillset, 2011). The accelerated trend of vertical integration should be contrasted with a sector characterised by small development teams. This suggests that market conditions have contributed to the rise in smaller independent development teams. An additional explanation for the rise in independent studios can be found in technological innovations that have lowered perceived barriers to entry, as digital distribution and the growth of mobile games have increased accessibility and given developers new opportunities to develop their own games (Martin and Deuze, 2009; Parker et al, 2014). The regional sector of the North West has provided an ideal case to study enterprise in digital game development given the distinctive characteristics of the regional sector. As a consequence of sectoral conditions a number of large studios have closed their operations, and this has naturally had a significant impact on employment. The sector has seen the emergence of smaller firms with Liverpool and Manchester being characterised as particularly entrepreneurial (Nesta, 2010).

Turning to the methodological position of this study, a position of interpretivism was taken on the basis of the subjective nature of reality (Morgan and Smircich, 1980) and the acceptance of the role of the researcher in creating knowledge (Gilbert, 2001). The methods of in-depth interviews and ethnography were recognised as an appropriate methodological choice which facilitated the understanding of developer’s perceptions and views in relation to market conditions and their employment choices (Easterby-Smith, Thorpe and Jackson, 2005). This was strengthened by the use of an ‘overt ethnography’ due to its ability to give additional insights into the culture and the behaviours of developers (Creswell, 2013). This was particularly pertinent given the reliance on social networks for attracting labour and determining the industry’s evolution and competitiveness (Izushi and Aoyama, 2006). The research involved twenty interview participants and an ethnography of two different networking groups that were visited on five occasions. Data collection and analysis occurred simultaneously as an ongoing reflective process and these were coded using the data tool Nvivo. As the research was taking place themes such as labour market conditions, precarious work and the importance of networks became apparent. The themes identified by Pongratz and Voß (2003) were relevant and were probed. The developers described their working practices and their employment relationships. These reflected the ‘society of entrepreneurs’ put forward by Pongratz (2008) and so emphasis was placed on self-employed developers.

In chapter 5 an analysis of the findings demonstrated how innovations in digital distribution, regional labour market conditions and managerial strategies to limit risk were perceived by developers. It then sought to establish how these conditions led to the differing articulations of ‘choice’ when developers
described their reasons for becoming self-employed. It found that the increased accessibility to digital platforms made self-employment a viable option for developers in the sector (Bergvall-Kåreborn and Howcroft, 2013). Furthermore, developers felt that their increasingly accessibility to digital platforms had given them an opportunity to wrest more control over their own production and deliver for them an increased financial opportunity. The respondent’s perceptions of the regional labour market conditions offered some explanation for the changing constitution of the regional labour market. Tax breaks and low cost labour abroad were given as an economic justification for firms to move production which contributed to the closure or slimming down of a number studios in the North West. This left an unstable and highly competitive labour market for all but ‘star’ developers. Managerial strategies to manage risk exacerbated the challenging conditions for developers. Accounts of limits on creativity, autonomy and unregulated long hours aggravated inhospitable conditions for developers.

This brings us to the first contribution to existing literature in this thesis. Rather than cite inhospitable labour market conditions, developers demonstrated differing articulations of ‘choice’ when describing their motives for becoming self-employed. It is suggested that developers have been left with little choice but to enter into ‘involuntary self-employment (Kautonen et al, 2010) or ‘accidental entrepreneurship’ (Coulsen, 2012). However, the ability to be ‘masters of their own destiny’, alongside narratives of freedom and independence from value chain relationships, were cited by developers as reasons for becoming self-employed. Developers perceived that self-employment was the optimum way to achieve secure and self-actualising work. The next chapter looked to consider this in the context of their entrepreneurial activity.

In chapter 6 the data was analysed using the Pongratz and Voß (2003) ideal type of ‘the entreployee’. It used this conceptualisation to demonstrate how work in the sector can be seen as increasingly entrepreneurial. Through the categories of self-control, self-commercialisation and self-rationalisation it critically examined the lived experiences of self-employed developers. It found that developers perceptions of freedom, autonomy and choice, which underlined the belief that self-employment enabled them to be ‘masters of their own destiny’, were not reflective of the experiences of this cohort of developers. This represented a contradiction of the liberating accounts of developers in the previous chapter as ensuring economic survival and remunerative employment meant that freedom and autonomy and choice were eroded.

Self-control appeared to be eroded as market structures normatively controlled developers leaving them with little choice but to develop games in accordance with market norms. These norms dictated the platforms used, the genres of game and pricing. Challenging market conditions meant that
developers had to take on additional work or seek funding. The benefits of temporal and spatial ‘flexibility’ were handicapped by the need to work long hours and the loss of attachment with peers. The practices of self-commercialisation in the digital games sector were reflective of those in other areas of the creative industries (Randle et al, 2015) as working for free was seen as a legitimate way for entering the industry and as a vehicle in which to gain experience. Networking was understood as a ‘normal’ work task and developers treated it this way and put time and effort into this practice. The consequence of developers undertaking self-commercialisation was the extension of the working week, an intensification of work and a blurring of work and life boundaries. The section on self-rationalisation revealed that developers were willing to accept the centrality of work in their lives. Extreme working practices such as ‘crunch’ were deemed acceptable because it was the developers own ‘choice’ and an illustration of passion for their work. However, this appears to be a case of some developers that are caught up in a pursuit of capital (Wilmott, 1997) alongside a desire for autonomy, freedom and security which shapes their attitude towards their work experiences. Furthermore, the intensification of work through networking was seen as a product of the insecurity in the labour market, something which developers felt they must adapt to.

The analysis of the findings contributes to literature in the area of digital games, with a specific focus on enterprise and entrepreneurialism. Furthermore, it provides a critical assessment of the impact of entrepreneurialism in individuals’ working lives. The findings also point to a new categorisation of ‘the entreployee’. Whilst self-rationalisation is put forward as a key feature, this thesis argues that self-rationalisation does not go far enough. It suggests that developers have to go beyond an acceptance of the centrality of work in their lives and illustrate a willingness to self-exploit or be exploited. The evidence suggests that developers are complicit in their own exploitation by working beyond the realms of a ‘normal’ working week as there was an acceptance towards being ‘on call’ or working long hours in dual employment in order to increase their chances of success in the future. An additional aspect where developers appear complicit in their own exploitation is working for free. Developers appeared to accept this exploitation of their time, their ideas and their intellectual property in order to gain ‘experience’ or exposure in the sector.

Chapter 7 explains why individuals engage in self-exploitative practices. Building on work that suggests that self-exploitation is rationalised by the self-actualising nature of the work, creative workers love of their craft or the gift of autonomy (Ursell, 2000; McRobbie, 2002; Ross, 2003) this section’s aim was to increase understanding of how self-exploitation occurs and why individuals self-exploit. In order to do this the chapter focused on the individual and collective values at work that provided the
motivation and the meaning in developers’ work which acts as a control mechanism to limit resistance to self-exploitative practices.

The analysis shows that subjective understandings of passion, commitment to work, an entrepreneurial attitude, and the need for attachment to peers were drawn on by developers to rationalise exploitative working practices. Furthermore, these characteristics appear to guide the behaviour of developers and limit their resistance to exploitative conditions. This provides an additional understanding of how individuals rationalise exploitative conditions beyond self-actualisation and the love of their craft.

In the context of fragmented work, developers looked to the occupational community. It is the analysis of these communities that leads to an additional contribution to knowledge. This thesis argues that the occupational community reinforces, normalises and socialises developers to accept exploitative work conditions. Developers were socialised to empathise with others and keep their community strong by demonstrating values of sociality and altruism but they were also encouraged to be enterprising as both occupational communities ‘sold entrepreneurialism’. This represents a paradox rather than a contradiction. Collective values were important for this community but so were individualistic values.

The unintended consequence of the adoption of these values was socialisation towards the acceptance of self-exploitative practices. ‘Communities of practice’ Lave and Wenger (1991) shaped developers identities and taught them how to behave. Collective values of sociality encouraged developers to stay active within their community. This translated into an intensification of work for developers as networking led to long hours beyond a regular ‘working week’. Collective values of altruism encouraged developers to help others within their occupational community. This provides an additional explanation to why developers work without pay, as developers were socialised to the practice of helping others as an obligation towards the community, even if this resulted in unpaid work. Working for free could also be explained by the occupational communities’ endorsement of enterprise. Prominent members actively encouraged enterprising behaviour. This socialised developers to work for free as it was encouraged as a form of enterprising activity. Also, the desire to be enterprising provided developers with a rationale to work long hours and network across communications channels.
These findings illustrate how a combination of individual and collective control contributes to the acceptance of self-exploitation amongst self-employed developers in the digital games sector. In the context of fragmented work developers looked to the occupational community to seek identity and attachment to others. However, due to the influence of the occupational community in framing working practices, the result was the normalisation and socialisation of exploitative work practices. More broadly, it contrasts with the well-established accounts of software work that draw on bureaucratic forms of control (Kraft and Dubnoff, 1986) and presents a compelling insight into control amid the context of discontinuous, casualised, and fragmented work. If the creative industries are presented and promoted as exemplifying new trends in the post-industrial landscape (Thompson et al, 2015), if jobs in the creative industries are seen as replacing more traditional industries (Randle and Culkin, 2009) and self-employment is becoming an increasing mode of employment, then it is vital that those interested in the labour process examine this form of control.

In the context of the glorification of enterprise by academic, political, and media silos, and accounts of a creative class of model entrepreneurs in the creative sector, this study presents an alternative perspective. It answers calls for more critical approaches to enterprise and entrepreneurialism highlighting an exploitative side to this form of employment. It provides a provocative contribution directed towards the exponents of enterprise by giving accounts of the marginalised entrepreneurs in our economy.

8.3 Limitations of study and opportunities for further research

While the strengths of this study have been noted, it is important to recognise that this study also has its limitations. This study has limited representation of female developers. This could have brought additional perspectives to this study as research suggests that female developers may have presented different perspectives on identity given the complexities of working in a male dominated work environment. This may have provided different explanations of practices apparent in the digital sector. However, the gender balance in this study is broadly indicative of sectoral trends (Adam, et al, 2006).

With respect to the ethnography, given more time I would have liked to have included additional networking groups in the regional sector to add more context to the research. However, events such as North West Indies ceased shortly before the ethnographic research began and the regularity of other events was sporadic.
An additional limitation is that the data in this study was taken from a sample of respondents from a relatively narrow geographical context. Time, finance and access could have facilitated research into a larger geographical area and led to further depth. Nevertheless, it is felt that this research does provide compelling accounts of developers’ work experiences and explains how individual and collective motivations rationalise exploitative practices.

In light of the findings of this study there is scope for further research. Given the relatively narrow geographic context, further research could be conducted in other geographical clusters. Areas of the United Kingdom such as Brighton, Dundee, London, Guildford and Sheffield are all characterised as particularly entrepreneurial (Nesta, 2014) so further research in these locations would help to establish whether these findings are indicative of trends in the sector. Furthermore, an international comparison of other ‘clusters’ of digital games development may further enhance our understanding of changing employment relationships in the sector and go some way to addressing the paucity of literature that examines entrepreneurialism in digital games.

The findings in this research are also transferable to different settings, perhaps in areas of high self-employment to examine if the actions of the occupational community in this study represents broader trends. As the wider contribution of this thesis is how individual and collective motivations result in control mechanisms that contribute towards the acceptance of self-exploitation, it may be vital to consider alternative settings outside of the creative industries to examine if self-exploitation is rationalised in similar ways given the expansion of self-employment in today’s economy.
List of References


Department for Business, Innovation and Skills (2010), Blueprint for Technology.


Gibson, N. and Gibson, R. (2008). Raise the Game The competitiveness of the UK’s game development sector and the impact of governmental support in other countries, NESTA


For developers, it’s not all fun and games


Skillset, (2014) Creative industries: Labour Market Intelligence Digest In Skillset (ed.) (London:


Appendix 1

Example of exploratory interview guide

1. Can you tell me a little about your role at ......
2. Can you talk me through the stages of a game project?
3. How are you involved in the process concept of game to delivery?
4. Do you think the management of employees in the creative industries is different than non-creative industries? If yes, in what ways?
5. Does this create different managerial and organisational challenges?
6. What are the innovative elements of the industry at the moment?
7. How does your firm promote innovation? Is it promoted more broadly in the industry?
8. How would you describe a creative person?
9. Is it necessary to evolve innovative ideas into disciplined practices? If so how do you do it?
10. What is the relationship between creative leaders and managerial leaders whilst creating games?
11. Is it difficult to recruit good people into the industry?
12. Are certain roles more difficult to fill?
13. Do you think people are keen to get into the industry?

Example of Developer interview guide

1) Can you tell me a little about yourself and your company?
2) Do you have general thoughts on the industry?
3) Why did you go Freelance?
4) What are your perspectives on the labour market in digital games?
5) Is there a high demand of jobs which are difficult to get into?
6) How did you get into the industry initially?
7) What strategies do you employ for finding work?
8) How necessary is the use of networks and social networks?
9) How much time do you spend networking?
10) What do you hope to get from it?
11) What is an average working day?

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