Experiences of Intense Work for Individuals Working in the Information Technology (IT) Sector and its Impact on their Lives

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Abstract

This dissertation, embedded in the Workforce Ageing in the New Economy (WANE) project funded by the Social Sciences and Humanities Research Council of Canada, explores intense work for individuals working in the Australian information technology (IT) sector. It builds on the existing literature using a qualitative lens to yield an alternative perspective to the phenomenon of work intensity. Using a life course perspective to understand the complexity and tensions that individuals experience in combining work with their personal lives, this study explores the various manifestations and the impact of intense work for individuals. Further, the relationship between ageing and intense work for individuals is examined.

The study, which is based on constructivist inquiry, presents the findings from the perspective of the individual using seven case studies. Individuals were employed in two organisations based in a major city of Australia, and one male and female were selected for study in each of three different age groups. The seventh case was a male aged over sixty. Although each individual’s experience of intense work is unique, a number of commonalities are evident. These constitute the main findings of this dissertation and pertain to the IT labour market, the workplace and the individual’s work/life interaction.

This dissertation develops a conceptualisation of the intense work experience. Comprised of two levels, the meta-level consists of the life course guiding principles that underpin the individual’s life events and transitions. The base-level of the conceptualisation has three main components: the intense work structure, the non-work structure and the interaction between the structures. All three components are in states of flux enabling each of them to change as the context changes. An individual’s experience of intense work can fluctuate and activities within an individual’s non-work life or domain vary from time to time. As a consequence, the impact of intense work on individual’s lives, and vice-versa, will change. This conceptualisation recognises diverse intense work experiences between individuals but also
for individuals, as their experiences change over time. When brought together, the meta-level provides a lens for viewing how the life course of individuals underpins the experience of intense work in the context of the work/life interaction (the base-level). Findings from the study have implications at a number of levels and recommendations pertain to organisational policy and a practice-based level, as well as at the level of the individual.
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Declaration

I declare that this dissertation:

- contains no material which has been accepted for the award (to me) of any other degree or diploma, except where due reference is made in the text of the examinable outcome;
- to the best of my knowledge contains no material previously published or written by another person except where due reference is made in the text of the examinable outcome; and
- where the work is based on joint research or publications, discloses the relative contributions of the respective workers or authors.

Signed        Date

Cheree Topple
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Chapter 1 - Introduction

The Focus

This dissertation was embedded in the Workforce Ageing in the New Economy (WANE) project which was funded by the Social Sciences and Humanities Research Council of Canada. WANE was a four year international project (2002-2006) that examined employment and human resources (HR) issues in the information technology (IT) sector in Australia, Canada, the United States, and selected European Union countries (United Kingdom, the Netherlands and Germany). The project explored the relationships between workforce ageing, employment growth in information technology labour markets and changes in employment relations in the new economy.

Building a discrete research focus within the WANE project, this dissertation provides an exploration of intense work for individuals working in the IT sector. For ease of discussion, the concept of intense work is examined from a qualitative perspective to mean the culmination of factors that make work intense. The term is discussed as a pertinent term (refer to page 8) however, a more comprehensive understanding of intense work progressively develops throughout the thesis as the complexity of the concept develops. This thesis examines the experience of intense work for individuals and its impact on their lives with a secondary aim of examining the relationship between ageing and intense work.

This study, which is based on constructivist inquiry, presents the findings from the perspective of the individual using seven case studies. These individuals were from two organisations based in a major city of Australia. Although each individual’s experience of intense work is unique, a number of commonalities are evident. These constitute the main findings of the dissertation and pertain to three broad areas, namely, the IT labour market, the intense work dynamics of the workplace, and the individual’s work/life interaction, that is, the influences of the intense work experience on the non-work life.
The Significance of the Study

Setting the Context for the Doctoral Study

Issues related to the phenomenon of ‘work intensity’ have evoked considerable interest among researchers, policy makers, and work commentators. It is at this point, that I make a distinction between the use of the terms ‘work intensity’ and ‘intense work’, in this dissertation. The most relevant literature to this thesis tends to use the term ‘work intensity’ which is predominantly researched through quantitative studies using large-scale survey instruments and is understood as a series of measures. In its simplest form, ‘work intensity’ is largely viewed as a quantitative term to describe the effort or pace at which people work (‘work intensity’ is comprehensively discussed in the review of the literature from page 13.) ‘Intense work’, as a term, is one of the significant contributions of this dissertation. It builds on the existing literature reviewed in Chapter Two using a qualitative lens to provide an alternative perspective on the phenomenon of ‘work intensity’. Thus, while the literature review pertains to the related concept of ‘work intensity’, the notion of ‘intense work’ progressively develops throughout this dissertation and is used in reference to my data and findings to reflect the inductive, case study methodology of this study.

The notion of work intensity or intense work as it relates to this study has implications for the individual, the organisation but also for society. At the level of the individual, work intensity is discussed in terms of consequences for health and well-being, work/life interface, the family unit as well as ageing workers. A proliferation of studies express concern about the relationship between working hard and the health and well-being of workers (see Allan, O’Donnell & Peetz 1999; Burchell 2002; Burke et al. 2009; Gallie et al. 1998; Wichert 2002). The European Working Conditions Surveys (EWCS) show that individuals experiencing intensification of work effort are more likely to report health problems. Further analyses by Burchell and Fagan (2004) indicate that working time conditions, such as disruptive interruptions, unsociable work schedules, intense pace of work and long hours all increase the risk of work-related illness. Yet, some autonomy with respect to working time conditions can slightly reduce the risk of work-related illnesses. Even when working conditions are controlled for in the analysis, the additional risk of work-related illness remains for people in managerial or professional positions.
Over the last two decades, workplace stress has emerged as a major social issue across developed countries. In recent times, Australian newspapers have revealed headlines such as: ‘Switched on, burnt out’ (Kissane 2006), ‘This job is killing me’ (Bright 2007), ‘Burnt out, hate your job? Well, the going just got tougher’ (LaMontagne 2009). Furthermore, research studies have supported the link between the phenomenon of work intensity and stress. Green (2001) found that the rise in work effort from 1987 to 1992 in Britain was associated with increased perceived stress. The Australian Workplace Industrial Relations Survey (1995) showed that the reported incidence of work-related stress was higher among individuals who reported an increase in effort in their job (6%) than in those who reported no change in effort (3%) (Morehead et al. 1997). In addition, increased work pressure was associated with work stress from working longer hours and working harder within each hour spent at the workplace (Watson et al. 2003). Stress from work intensity can lead to a position of reduced utility of work, with adverse consequences for the individual, their family and society, in general.

Work intensity has far ranging consequences for the individual with broader ramifications for the individual’s life or more specifically the individual’s non-work life. Findings from Allan, O’Donnell and Peetz (1999) showed that when insecurity, job broadening and work intensification led to increased stress levels, problems in workers’ personal lives also occurred. The intensity of work is often associated with the experience of work/life conflict, that is, “when pressures arising in one role are incompatible with pressures arising in another role” (Greenhaus & Beutell 1985; p.77). Increased stress has been strongly associated with heightened dissatisfaction with individual’s work and family balance. More recently, data from the Australian Work and Life Index (AWALI) of 2009 showed that over half of all employees felt that work (sometimes, often or almost always) interfered with activities outside of work (Skinner, Pocock & Ichii 2009). The strongest predictors of poor work-life interaction were an unsupportive workplace culture and work overload (Skinner & Pocock 2008). The issue of balancing paid work and family responsibilities has emerged as one of the biggest challenges facing Australia in the 21st century (Squire & Tilly 2007). The Australian Workplace Industrial Relations Survey (AWIRS) of 1995 showed that 48% of employees with a high score on the work intensification index reported a decline in their satisfaction in the balance between work and family life, compared with 27% of all employees (Morehead et al. 1997). More recent
Australian data supports the notion that working parents have worse work-life interaction than people without parenting responsibilities (Skinner & Pocock 2008). These findings have implications for the quality and potential longevity of an individual’s working life and the healthy work/life relationship for workers. Individuals’ investment of time and resources in their work role presents a work/life conflict for individuals and reduces the capacity to perform in a non-work role. This can have a considerable impact on parents in terms of the support, care and interest they can provide their children. As with stress caused by work intensity, individuals could find themselves in a position of reduced capacity which presents economic challenges for the individual, family and the government.

Foci on health and well-being, work/life balance and the family unit as outcomes of the phenomenon of work intensity are not the sole considerations in this thesis. However, these issues do emerge in the findings of this dissertation and contribute significantly to the literature. With its qualitative approach on the experience of intense work in the IT industry, a further layer of significance in this study is its focus on ageing in a contemporary labour market.

The phenomenon of work intensity has far reaching consequences in light of significant demographic change that is projected to affect first world countries over the coming decades. Declining birth rates, people living longer and an ageing population means that the proportion of working-age people (15 years to 64 years) of the total Australian population is expected to fall 7% from current levels to 60% in 2049/50 (Commonwealth of Australia 2010). There will be an increasing number of older Australians aged 65 years and over with fewer people of working age to support them. To put this in perspective, at present, there are about five people of working age for every person aged 65 and over. In 2050, there will be only 2.7 people of working age for every person 65 years and over (Commonwealth of Australia 2010). The fall in labour force participation rates will impact on the nation’s economic growth and while there is pressure for immigration rates to increase (McDonald & Withers 2008), encouraging mature age labour force participation is significant for future economic growth.
The promotion of prolonging or extending working life has been raised as a public policy measure where delaying the exit of older workers from the labour market offsets declining labour force participation and supports the economic interests of the country (Jorgensen & Taylor 2008b; Taylor 2010). Prior to this study's inception, the National Strategy for an Ageing Australia identified the need for and value of better utilising skilled mature age workers [which] will increase as the supply of younger workers declines. Ongoing engagement of mature age workers will be important to achieve sustained economic growth as the population ages (Commonwealth of Australia 2001, p. x).

Government policy and business are promoting the extension of older workers' lives. However, the question arises: What effect does working longer have on workers' health and well-being? In the midst of considerable demographic change, societies are experiencing rapid social and technological changes alongside the broader forces of globalisation (Jorgensen & Taylor 2008b). Rapid change is likely to impact on the skill level of workers and demands retraining and skill upgrade of the worker (Felstead et al. 2007). The occurrence of these activities, largely shaped by the industry and markets in which individuals work, could require multiple and recurrent skill upgrade and knowledge acquisition across the individual's working life in order to maintain employability. This is a likely scenario in the IT sector, particularly at the high-skills end, where considerable technological change is experienced (Adams & Demaiter 2008; Adams and Demaiter 2010; Baldry et al. 2007; Barrett 2005b; Benner 2004). In light of prolonging working lives, are workers likely to invest in human capital across their working lives?

Feelings of uncertainty and anxiety amongst older workers can present obstacles to skill upgrade with some workers reluctant to make an investment in their human capital (Jorgensen & Taylor 2008a). Furthermore, “older workers stand to benefit less from investing in new technology-driven skills as they have a shorter remaining work career over which to recoup their investment” (Karoly & Panis 2004, p.57). Failure to pursue or have access to relevant skills in a job is most likely to lead to obsolescence. In industries
with experience of rapid technological change, older workers have retired sooner because of the faster depreciation of their capital (Brooke & Taylor 2005).

These scenarios present considerable challenges and obstacles for workers, industry and government, and require examination in light of intense work environments. A key consideration emerges: How can workers sustain an 'intense' working life that combines their work and non-work lives into older age? An analysis of findings from the Third European Working Conditions Survey indicated that workers from all age groups reported that "work intensity increases the feeling that it will be impossible to do one's present job at the age of 60" (Boisard et al. 2003, p.69). The most burdensome forms of work intensity included frequent work interruptions, supervision by bosses, and obligations to meet numerical targets, all of which were considered difficult to endure over one's working career for individuals of all ages (Boisard et al. 2003).

Workers reported fears of not being able to work at 60 years of age in the ways that they do now. This suggests a sense of an unsustainable working capacity. The French study 'Travail and modes de vie', demonstrates "that the sense of having no future is associated with acute forms of suffering at work" (Baudelot & Gollac 1999 cited and translated in Boisard et al. 2003, p.57). These negative aspects of work are perplexing and have ramifications for working lives in light of global workforce ageing issues. How will workers who experience intense work be able to sustain longer working lives?

The Doctoral Study's Contribution to the Literature

Clearly this dissertation contributes to filling a lacuna in the surrounding literature as to why this study of intense work is important. However, this study also contributes to the literature in terms of its methodological contribution and its focus on ageing. This doctoral study builds on the existing literature using a qualitative lens to yield an alternative perspective on the phenomenon of work intensity. In Chapter Two, a review of the literature shows that the concept of work intensity has predominantly been researched through quantitative studies using large scale survey instruments which tend
to give rise to breadth rather than depth in terms of data (see the European Working Conditions Surveys of 1995, 2000 and 2005; Gallie et al. 1998; Green 2001; Morehead et al. 1997). This doctoral study focuses on the experience of intense work from a qualitative perspective with the intent of providing a more comprehensive and encompassing understanding of the concept. It takes an inductive approach to examine the concept in order to explore and understand the experience of intense work and its impact on individuals at different stages of the life course. The research seeks to interpret the meaning that individuals attach to their experience of intense work in the IT sector.

Chapter Two illustrates the paucity of work intensity research within an Australian context and across the IT landscape. The national context and workplace sector in which this study is positioned are voids in the literature that this study will shed light.

A further limitation of the early work intensity literature that this dissertation attempts to overcome is the examination of the concept exclusively in the domain or sphere of work. The typical software engineer or IT worker more broadly, is often described as having no boundary between their work and non-work domains (Kidder 1981; Kunda 1992; Perlow 2001; Scholarios & Marks 2004). While the work/life boundary is seen to be more ‘blurred’ for knowledge workers (Rasmussen & Johansen 2005; Shih 2004; Shuey & Spiegel 2010) or ‘fluid’ (Baldry et al. 2007; Hyman et al. 2003; Hyman, Scholarios & Baldry 2005), the work and non-work domains are viewed to be ‘integrated’ rather than ‘separated’ for the average software worker (Scholarios & Marks 2004). However, the work intensity literature does not recognise that the work or career domain is interdependent with non-work domains, such as health and family. Clearly, if workers’ trajectories are mutually dependent and if the work boundary can be described as ‘blurred’ or ‘fluid’, people’s constructions of intense work are likely to encompass broader, work-related intensities that extend beyond the domain of work (rather than those that are confined to the domain of work). It is important, therefore, that intense work is examined in a broader context that acknowledges the interaction and boundaries between work and non-work domains.

This doctoral study uses a life course perspective to understand the tensions that individuals experience combining work with their personal lives. The perspective is
discussed in detail as a pertinent term on the following page and in Chapter Three. The use of this framework enables examination of the impact of intense work on the lives of individuals working in IT and the association between intense work and ageing. This is captured as the final contribution of this thesis in terms of a conceptualisation that shows the experience of intense work in the context of the work/life interaction.

**Pertinent Terms**

A number of terms are pertinent to this thesis. For ease of discussion, the terms ‘intense work’, ‘life course perspective’, ‘information technology’, ‘work’, ‘non-work’, and ‘ageing’ in the context of younger and older workers are clarified from the outset.

**Intense Work**

Given the inductive design of this dissertation, I will use the term ‘intense work’ rather than ‘work intensity’ in relation to this study's data and findings. First, the term ‘work intensity’, by definition, is a quantitative based term and, therefore, presumes either high or low connotations. Given that this study builds on the existing literature using a qualitative lens to provide an alternative perspective on the phenomenon of ‘work intensity’, the use of the term ‘intense work’ is more fitting for my research purposes as it does not reflect a particular research inquiry. Secondly, although this term is not present in the literature, it is my contribution to the field with the experience of ‘intense work’ being explored in detail throughout this thesis. For the purposes of this doctoral study, I have simply defined ‘intense work’ as the culmination of factors from the IT labour market, the workplace and the work/life interaction (underpinned by the life course) that make work intense. This definition acknowledges the domain of work but it also recognises that the type of interaction between the work and non-work domains can further influence the experience of ‘intense work’. Throughout this dissertation I commonly use the word ‘intensive’ to mean the same as ‘intense’.
Life course Perspective

The research design uses a life course perspective to explore the phenomenon of intense work for individuals with different life course experiences. The life course perspective is a framework used to understand the relationships between people’s lives and social change (Elder 1997; Giele & Elder 1998; Heinz 2001; Marshall & Mueller 2003; McMullin & Marshall 2010a). The perspective is holistic and looks at lives in a broader context, allowing for individual agency, but understanding lives as part of a historical time and place, a series of social networks, embedded in social institutions that shape life experiences (Marshall 2006, p.ii).

The life course perspective will be explored at length in Chapter Three.

Information Technology (IT)

Broadly speaking, there is no standardised definition of the IT sector in an Australian national context (Brooke et al. 2004). IT is viewed as being embedded in the broader sector of information and communication technology (ICT) which comprises the manufacturing of computer and telecommunications equipment, wholesaling and computer services (Framework for the Future Mapping Working Group 2003).

However, for the purposes of this thesis, the focus is on the individual working in IT. Like the sector, there is no definitive view of what constitutes an IT occupation. Given the cross country comparative nature of the WANE project, Australian IT occupations were selected in concordance with IT occupations from the Canadian National Occupational Classifications. These IT occupations were selected from the Australian Standard Classification of Occupations’ two major classifications of IT workers: Computer Professionals and Information Managers.

In 2006, approximately a quarter of a million people were employed in Australian IT selected occupations (Australian Bureau of Statistics 2006). (Current statistics about the
IT workforce are not known as further data about IT occupations has not been collected by the ABS since 2006/07 (Australian Bureau of Statistics 2008)). At the time of data collection, in the early to mid 2000's, the census data indicated that 22% of the IT workforce were female (n= 56067) with more than three-quarters male (n=197 747) (Australian Bureau of Statistics 2001a).

In 2001, the Australian IT profession reflected a young profile with about 77% of people working in IT occupations aged under 45 years (n = 196 213) with the remaining 23% aged 45 and over (n=57 601) (These data are based on selected IT occupations) (Australian Bureau of Statistics 2001b). Further analyses indicated that 35% of the workforce were aged 25 to 34 years (n=89 028) followed by 30% who were aged 35 to 44 years (n = 75 347). Older individuals working in IT were less common, with 18% of the profession aged between 45 and 54 years (n= 44 530) and then numbers descended steeply at 55 years with only 5% of individuals aged 55 to 64 years (n =11 742) and near negligible representation (1%) aged over 65 years (n= 1 329) (Australian Bureau of Statistics 2001b).

**Work and Non-work**

The dichotomy of ‘work’ and ‘non-work’ needs to be discussed in the context of this study. Throughout this dissertation I refer to these roles more broadly in terms of domains or trajectories. ‘Work’ has been defined in simple terms as paid work or employment. In this dissertation ‘work’ has also been referred to as the work or career trajectory, a term consistent with the life course perspective. ‘Non-work’, ‘personal life’ or simply ‘life’ refers to activities or roles that are not associated with an individual’s paid work. This could include, but is not limited to, recreational and leisure activities, different forms of caring (such as parenting or caring for a parent), civic activities and non-paid forms of domestic work. The ‘non-work’ or ‘personal life’ could, where appropriate, also be referred to as the family trajectory.
**Ageing**

Ageing is a key construct of interest to the study's aims. Throughout the dissertation I make reference to 'older' and 'younger' individuals. In the context of this study, older individuals were seen to be 45 years and over where younger individuals were perceived to be less than 45 years of age. The definition of an 'older' worker is consistent with the usage by the Victorian, South Australian and Western Australian Equal Opportunity Commissions and The Australian Employers' Convention (2001).

**Boundaries of the Research**

This doctoral study focuses on the concept of intense work from the perspective of work and its impact on individual's lives. However, given that the focus of the study is positioned in the domain of work, it is limited in its examination of the non-work domain. Conventionally, spill-over between boundaries is seen as bi-directional where work may be integrated into non-work domains or vice-versa where non-work is integrated with work (Ashforth, Kreiner & Fugate 2000; Olson-Buchanan & Boswell 2006). However, this dissertation examines the tension between intense work and the aspects of an individual’s non-work domain but does not intend to provide a bi-directional analysis. As a result, the conceptualisation of intense work, in terms of the work domain, has been thoroughly explored and is comprehensive and detailed in its scope while facets of the non-work domain have not been examined to the same extent.

In terms of demographic data, a key focus of interest to the study was the construct of age. Yet the demographic of the national IT workforce indicated a youth centric profile. This meant that it was difficult to locate individuals in the firms studied who were aged over 45 years and available to participate in a research study over a two year period. Furthermore, issues related to ethnicity and gender emerged in the findings as fruitful areas for research. However, the word limit and scope of this thesis prevented examination of these broad areas. These issues remain areas for future research.
A Brief Overview of the Thesis

This thesis focuses on the experience of intense work – viewing the phenomenon of work intensity from a different perspective - which is explored in detail throughout this dissertation. Given the inductive, case study approach of this study there is very little literature that refers to the term intense work with most of the relevant literature about the related concept of work intensity. Hence, the following chapter examines the literature pertaining to work intensity. Chapter Two details the conceptualisation of work intensity from the use of national large-scale surveys, case-study and sectoral studies.

Work intensity is then examined in the context of IT work with elaborations into ageing in the IT sector. The final part of the literature review looks at work intensity in the IT sector in the context of the work/life interface. The third chapter justifies the methodological framework used in the study, which is based on constructivist inquiry (Guba & Lincoln 1994). The strategies and data collection methods utilised in the study are discussed followed by quality and ethics aspects of the study. The experiences of intense work are presented in the fourth chapter from the perspective of the individuals working in the IT sector. The chapter takes the form of seven case studies which detail the interaction of intense work with the non-work domain of individual’s lives. These issues provide the basis for the thematic analysis of the thesis which is presented in Chapter Five. The sixth chapter presents the main conclusions of the research. It provides a conceptualisation of the experience of intense work across the work and non-work domains. The application of the study’s findings at an employment policy level and application for individuals who work in, or are interested in, work in new economy organisations are also detailed. The final chapter concludes with signposts for future research.
Chapter 2 - Literature Review: The Experience of Intense Work for Individuals who Work in the Information Technology (IT) Sector

Introduction

This literature review is comprised of three parts that provide the context of this study but also justify its original contribution. In light of the inductive, case study methodology of this study, the term ‘intense work’ progressively develops throughout this dissertation. This study builds on the existing literature reviewed here using a qualitative lens to view the phenomenon of ‘work intensity.’ Consequently, this chapter reviews relevant literature that focuses largely on the related concept of work intensity. The work intensity literature, whilst mainly quantitative, provides a base-line for exploring a qualitative study of intense work for individuals who work in the IT sector and its impact on their lives. The first part of the review examines the concept of work intensity. Part two considers work intensity in the context of IT work with elaborations into ageing and part three focuses on work intensity in the IT sector and its impact on the non-work domain.

Part 1 - The Concept of Work Intensity

Within the literature, the term work intensity is largely nebulous and without neat confinement. There is no universally held nor over-arching theory of work intensity (Burke et al. 2009; Burke & Fiskenzaum 2008; Fiskenzaum et al. 2010). Frameworks that do exist emerge from a multitude of disciplines (see Burke et al. 2009; Fairris 2004; Green 2001) and tend to be discipline-specific representing multiple bodies of literature, rather than multidisciplinary in form.

Definitions of work intensity are problematic. Burchell et al. (2009, p.7) attribute a lack of a “straightforward definition due to the variety of actors’ perspectives and forms of work.” In the literature, explicit definitions of work intensity are somewhat elusive and where definitions are present, they tend to be vague or ambiguous in their meaning. Definitions can
be ‘circular’ or tautological in meaning. For example, Green (2001, p.54) defines work intensity as “the intensity of work during that time at work” or “the intensity of labour effort during that time at work” (Green 2006, p.47). Burchell (2002, p.72) sees work intensity as “the effort that employees put into their jobs during the time that they are working” where Burke et al. (2009, p.14) writes of it as, “how intense is the effort during the time worked.” While these definitions either make reference to effort or intensity in the realm of work, the tautological nature of these definitions, that is, defining a term using that term, fails to elucidate a clear understanding of the concept and what it means.

Compounding our understanding of work intensity is that the term is used in a variety of ways by different authors. As noted above, when trying to define the concept, work intensity is most commonly used in reference to an effort related activity particularly in the economics and social science literatures (see Burchell 2002; Burke et al. 2009; Burke & Fiskenbaum 2008; Fiskenbaum et al. 2010; Gallie et al. 1998; Green 2001). Yet, associations have also been made with ‘work pressure’, ‘working hard’ and most notably, ‘long work hours’. The ambiguities, inconsistencies, breadth and gaps in relation to the concept of work intensity present challenges when trying to review the appropriate bodies of literature. However, in consideration of these noted challenges, the literature reviewed in this chapter infers that, at the highest level of categorisation, work intensity can be assumed to mean or relate to one or more of the following variables or sentiments:

(a) the number of hours worked;
(b) the level of output required from a work activity (including work effort);
(c) the pace or speed of work;
(d) the mental or emotional response induced by the work activity; and/or
(e) the degree of worker’s control or autonomy of the work activity.

Work intensity can be viewed as either high or low. Sentiment (a) might equate to high or low intensity depending on the number of hours worked on a given day. This is closely associated with sentiments (b) and (c) in terms of working to tight deadlines and having enough time to
do the job. It could also relate to the mental or emotional activity required on the day of work (sentiment (d)).

Sentiment (b) might be experienced as high or low intensity depending on the relationship between required output and either the past experience of the worker or the maximum capacity of the worker. This sentiment relates strongly to the concept of work effort.

Sentiment (c) might result in high or low intensity depending on the speed at which tasks need to be completed. As mentioned earlier, this sentiment is associated with sentiment (a) to include working to tight deadlines or having a large workload to complete.

Sentiment (d) refers to mental and emotional responses induced by work activities which could result in either negative or positive attitudes to work. These could be in the form of stress, anxiety and challenges. Some of the literature reviewed in this chapter closely links this sentiment with that of work effort (sentiment b).

Sentiment (e) might be experienced as high or low intensity according to the level of autonomy or influence the individual has over the completion of work activities.

This categorisation is by no means absolute and aims to provide some clarity about the concept of work intensity to show how writers have different uses for the term. In the relevant literature, various writers have focused on one or more of these alternative aspects in defining work intensity. Consequently, work intensity as a concept is often multi-faceted (this is clearly reflected in the measures of work intensity used in large-scale surveys). The following review will, from time to time, link such individual usage to the framework outlined above.
Furthermore, the ambiguities, inconsistencies and gaps in the literature support this study’s use of a qualitative approach to understand the phenomenon of work intensity in a way that focuses on the experience of intense work. This study takes an inductive approach to explore and understand the experience of intense work and its impact on individuals at different stages of the life course. It seeks to interpret the meaning that individuals attach to their experience of intense work.

**Measures of Work Intensity – Insights from Great Britain**

Trends in work intensity have been difficult to map given the difficulty of finding consistent, reliable measures. However, Great Britain has a number of survey instruments stretching back to the early 1980s which has allowed a range of quantitative indicators of work intensity to be calculated (Green 2001). As such, considerable work intensity research originated from Great Britain predominantly from studies attempting to establish an increase in workers effort (sentiment (b)) as a primary source of productivity growth (Batstone & Gourlay 1986; Edwards & Whitston 1991; Green 2001; 2004; 2006; Guest 1990; Nichols 1986). National, large-scale surveys typically used measures of effort (sentiment (b)) and pace of work (sentiment (c)) to show an intensification of work in the ’80s and ’90s, which extended into the new millennium (Burchell 2002; Gallie et al. 1998; Green 2001; Green 2006; Green & McIntosh 2001). Given that the work intensity literature from Great Britain draws heavily on the variable of work effort (sentiment (b)), the review will briefly look at work effort before considering the large scale survey measures of work intensity. It should be noted that the purpose of looking at these measures is to illustrate the use and diversity of understanding of the term work intensity and consequently, the difficulty to gauge trends. This section focuses on the Great Britain landscape, given that coverage of the literature originates from there, and then extends to examine the work intensity context in the broader European Union and also Australia.

**Work Effort**

Studies of work effort have been plagued with problems of both definition and measurement. Across the social science and economic literatures, commentators have expressed difficulty in
finding a direct or objective measurement of work effort (Nichols 1986) and the investment of
time and resources to find an objective measure has largely been deemed a fruitless pursuit
for research (Guest 1990; Nichols 1986).

The theoretical contributions of Baldamus (1961) advanced the concept of effort, although
there were some shortfalls in his work. Seeking a 'provisional definition' of effort, Baldamus
(1961, p.29) proposed that 'effort' be regarded as “the sum total of physical and mental
exertion, tedium, fatigue, or any other disagreeable aspect of work” (this definition of effort is
closely aligned with sentiment (d) of the framework). The sum of these deprivations, which
Baldamus perceived to be 'impairment' was associated with 'physical conditions'; ‘tedium'
associated 'repetitiveness'; and ‘weariness’ associated with ‘routines’. Despite the sum of
these negatively perceived aspects of work effort, Nichols (1986) implied that Baldamus’
definition had no practical application as it overlooked the instability of work feelings.
Nichols (1986) suggested that measurements of effort made in the social sciences were
equivalent to the progress that was made in the field of economics, and conceded that the
concept of effort remained ill-developed.

Baldamus’ (1961) research implied that effort was associated with negative aspects of work
and he tended to neglect or overlook any of the potential positive aspects that people gain
from working. Clearly, work is a significant element of people's lives. At an economic level, it
provides individuals with an income for the exchange of goods and services. Work provides
people with an identity and affiliation with a group or community and can offer a sense of
meaning or purpose, evoking feelings of satisfaction, fulfilment and success.

Contributing to the body of literature in the early millennium, Green's (2001; 2004; 2006)
understanding of effort was viewed from a similar platform to Baldamus but Green
acknowledged the element of working time. Green (2001, p.56) recognised that work effort is
“the rate of physical and/or mental input to work tasks performed during the working day.”
The measurement of effort can be partly understood as “inversely linked to the 'porosity' of
the working day, meaning those gaps between tasks during which the body or mind rests”
This conceptualisation shows a strong link between sentiments (b) and (c) of the framework at the beginning of this chapter.

Green used the concept of work effort interchangeably with work intensity and defined two types of work effort: ‘extensive’ and ‘intensive’. Extensive effort was understood as “the time spent at work” and intensive effort as “the intensity of work during that time at work” (Green 2001, p.56). Extensive work effort or work hours (sentiment (a)), synonymously, are relatively simple concepts to measure. Intensive effort, on the other hand, is equated with work intensity and presents as a more difficult concept to measure (Green 2001, p.56).

Intensification of work is commonly seen as synonymous with effort. However, Guest (1990) argued that work effort and intensity were not synonymous. Using a psychological theory of signal detection Guest (1990) illustrated the differences between throughput, intensity and effort proposing that unpredictable variations in work involve greater signal detection, mental alertness and effort than tasks that have a steady throughput. Consequently, more effort is required for tasks that have unpredictable stops and starts than tasks that are constant. Guest (1990, p.303) says,

> If production management is smooth and uninterrupted but allows operatives some autonomy, it is quite likely that throughput and apparent intensity will be high, while operatives report less effort expenditure than on a production line with constant unpredictable stops and starts.

While Guest (1990) provides examples to support a distinction between throughput, intensity and effort it is somewhat difficult to determine how measures in these studies were evaluated. For example, how were effort levels measured? While much of the literature associates work intensity with work effort, Guest’s (1990) work highlighted the inconsistent thinking surrounding the concept of work intensity. Nevertheless, his work on the difference between
intensity of work and worker effort raises questions about the role of worker autonomy or influence and its relationship with work intensity. What impact did worker’s influence have on the experience of intense work? This finding has significance for studies of contemporary IT work where workers are likely to have more influence over their work. The use of in-depth case studies in this study intends to reveal greater insight into the role of autonomy or influence for IT individuals.

**Large-scale Data Sets**

Large scale surveys of work intensity initially used measures of work effort (sentiment (b)) and pace of work (sentiment (c)) to determine how hard workers were working. The Social Change and Economic Life Initiative (SCELI) was a non-representative survey of 4000 British workers in the early 1980s. Nearly 56% of respondents reported higher effort levels in their current job than five years before while 36% reported little or no change in effort and 8% experienced decreasing effort levels (Green 2001). More than a third of respondents reported working faster at the time of the survey than they had five years before compared with 54% who said there was little or no change, and 8% whose pace of work had declined (Green 2001).

Records of rising work effort were also found in medium to large sized organisations across the British economy. The Workplace Industrial Relations Survey (WIRS) conducted in 1990 surveyed over 2000 business organisations that employed at least 25 workers (Green 2001). The survey concluded that effort levels were higher than they had been three years previously for more than half of manual workers and for about 68% of non-manual workers. From this data, concern emerged about workers’ levels of well-being at work from rising effort levels (association between sentiments (b) and (d)) (Green 2001). Three out of five respondents reported increased work effort while more than half registered increased stress.

There was evidence to suggest that work intensity had continued rising in the early 1990s. The Employment in Britain Survey, conducted in 1992, was a representative survey of people
working in the economy and used more extensive measures of effort to assess physical and mental work pressures, and also time pressures (as captured in all of the sentiments (a), (b), (c), (d) and (e) in the framework). Respondents were asked how strongly they agreed or disagreed with the following statements: ‘my work requires that I work very hard’ and that ‘I work under a great deal of tension’. There were two items on time pressures in work: whether or not people felt that they ‘had enough time to get everything done on the job’ and whether or not they often had ‘to work extra time over and above the formal hours of the job, to get through the work or to help out’ (Gallie et al. 1998). Respondents were also asked whether, over the last five years, ‘the effort you have to put into your job’ had increased, stayed the same, or decreased. Approximately, 61% of respondents reported that their effort levels had increased from 1987 to 1992 compared to 31% who reported no change in effort and only 7% who claimed effort levels had decreased (Green 2001).

Furthermore, the 1998 British Workplace Employment Relations Survey (WERS) conducted with over 2000 companies with 10 or more employees, showed that both managers and workers reported rising perceived effort levels (sentiment (b)). Yet, there was some discrepancy between the reports from the two groups. Worker representatives and managers from each company were interviewed about changes in how hard people had or were perceived to have worked over the last five years. While 60% of worker representatives perceived that effort levels had gone up considerably only 39% of managers agreed with this extent of change (Cully et al. 1999). These results highlight the subjectivity of reporting change in effort levels for others and could be a product of competing views between management and workers. From the perspective of management it may be in their best interests to provide conservative estimates of the perceived effort expended by workers, especially in unionised workplaces, to avoid potential conflicts about wage-effort exchange. As other studies have shown, evidence of workers working harder usually warrants a base for requests for higher salaries (Batstone & Gourlay 1986).

Additional sets of data from the Employment in Britain survey of 1992 and the Skills Survey of 1997 enabled Green (2001) to compare representative surveys and to examine discretionary and constrained sources of work effort (sentiments (b) and (e)). This was an insightful
contribution to the literature as it provided a distinction between effort driven by the organisation or management practices and effort that was internally driven. Estimates of work effort were measured by the question, ‘How much effort do you put into your job beyond what is required?’ which was used to identify a respondent’s discretionary effort. The statement, ‘My job requires that I work very hard’ was used to elicit a response capturing the extent to which respondents are constrained by their job to work very hard. Here, the assumption is that the measure of working ‘very hard’ is synonymous with constrained sources of work effort. An increase of discretionary effort was found across the five year period with 94% of workers reporting either ‘some’ or ‘a lot’ of discretionary effort in 1997 compared to 89% in 1992. This finding was more pronounced for women than men in 1997. In terms of constrained effort, work had intensified for both men and women with 40% of all workers strongly agreeing that their job requires them to work hard compared with 32% of workers in 1992 (Green 2001). Green used these results to show that work had intensified over this period. An advantage of these analyses was that the data were based on large, cross-sectional representative surveys and were not dependent on respondent’s recall, therefore, the incidence of recall error was eliminated.

Green (2001) found further support for discretionary and constrained effort with the development of an effort pressure sources index (EPSI) which was based on sources of effort pressures (sentiments (b) and (e)) identified in the SCELI (1986), Employment in Britain (1992) and Skills Survey (1997). Sources of effort pressure included a machine or assembly line, clients or customers, supervisor or boss, fellow workers or colleagues, own discretion, pay incentives and reports and appraisals. There were strong positive relationships between the EPSI and discretionary and constrained effort noted earlier.

The index registered the number of pressures ranging from 0 (no pressures) to 7 (maximum pressure). People’s experience of work pressure had increased over a decade from 1.92 in 1986 to 2.41 pressures in 1992 to 2.74 in 1997. Green (2001) claimed that these work pressures could serve as proxies of work effort and provide a picture of workplace change over one decade. While workers own discretion was recognised in 1986 (61.5%), 1992 (65%) and 1997 (67%) as the highest source of work pressure, fellow workers/colleagues had
increased significantly over the decade causing people to work harder. In 1986 only 29% cited colleagues as affecting how hard they work, this increased to 36% in 1992 and to 57% in 1997.

The surveys have indicated a rise in worker effort in the '80s and '90s in Great Britain using simple measures of pace of work (sentiment (c)), time pressures (sentiments (a), (b) and (c)) and change in effort levels (sentiment (b)). Yet, these results are not without limitations. Self-report measures are sometimes viewed critically, particularly where it would be perceived socially desirable for people to report that they are working hard, in terms of their career. Surveys conducted at a single point of time require respondents to report retrospectively on changes in their effort levels which can be liable to recall error. The use of comparative representative surveys protects against some of these limitations and further supports an intensification of work in Britain during the 1990s (Green 2001). The probability of inaccurate recall could also be further counteracted by longitudinal designs with respondents completing the same questionnaire at different points in time. However, as noted by Guest (1990, p.306) “if we want to know whether workers are working hard, we should ask them.” While these measures have been useful for illuminating the characteristics of work intensity, this doctoral study builds on this literature base by examining the experience of intense work from the perspective of the individual and the meaning they construct of intense work.

**Large-scale Data sets - Measures of Work Intensity from the European Working Conditions Survey (EWCS)**

The European Foundation for the Improvement of Living and Working Conditions’ longitudinal European Working Conditions Survey (EWCS) is a large scale comprehensive research survey that can reveal work intensity trends over time. Since 1990, five surveys have been conducted although the measures used have changed across the surveys reflecting a more comprehensive understanding of work intensity (collation and analysis are still underway on the 2010 survey). The first three surveys measured work intensity in the context of pace of work or pace constraints (sentiments (a) and (c)) and was taken to refer to the frequency of working to ‘tight deadlines’ at ‘very high speed’, and ‘enough time to do the
job’ (the latter measure was only included in the 1995 and 2000 surveys) (Paoli 1992; Paoli 1997; Paoli & Parent-Thirion 2003). The Fourth EWCS, conducted in 2005, looked at time constraint and perceived intensity. The measures on the survey reflected an understanding that work intensity can be attributable to a multiplicity of factors. In some cases, it can be related to “the number of basic tasks performed per unit of time” (Burchell et al. 2009, p.7) (sentiment (b)). This is likely to depend on the type of organisation that exists in firms which influences the various forms of time constraint that can emerge. Furthermore, organisational and technological change can also influence forms of work intensity as can the individual’s decision to work hard.

Time constraints and perceived work intensity can be observed from large scale surveys. Different types of time constraint were measured by responses to the following question: ‘On the whole, is your pace of work dependent, or not, on ...?’

- The work done by colleagues;
- Direct demands from people (such as customers, passengers, pupils, patients);
- Numerical production targets or performance targets;
- The automatic speed of a machine or movement of a product; and
- The direct control of your boss.

(Parent-Thirion et al. (2007)).

Much of the earlier literature tended to attribute work intensification findings to changes in the labour process and manager’s efforts to increase productivity. The inclusion of these items in the Fourth survey provides some insight into the reasons why people are working harder. However, the list is far from comprehensive and could have included a greater number of attributes to broaden our understanding of the phenomenon of work intensity. These items have also been criticised as they measure the presence of a time constraint and not its strength (Burchell et al. 2009). Perceived work intensity items indirectly measure the
level of intensity required by the organisation which is dependent on the determinants of intensity and available resources to workers. Three items used to measure perceived intensity are:

- ‘does your job involve working at high speed?’ (sentiment (c))
- ‘does your job involve working to tight deadlines?’ (sentiments (a) and (c))
- ‘[have you] enough time to get the job done?’ (sentiments (a) and (c))

(Parent-Thirion et al. (2007)).

In contrast with the time constraint questions, these items capture the ‘strength’ of the measure but they lack objectivity in terms of the use of ‘high’ and ‘tight’ – what is ‘high’? What is deemed to be ‘tight’? Responses to these questions can be influenced by other aspects of working conditions.

Changes to work intensity measures in the surveys have meant that it is somewhat difficult to track trends over time. Results from the Third survey (2000), the aggregate European Union (EU) results, indicated that work had intensified based on measures of working to tight deadlines and high speeds (Paoli & Parent-Thirion 2003). Working to meet tight deadlines for at least a quarter of their time had increased for people over the decade 1990/2000 (49% in 1990 to 60% in 2000) (Paoli & Merllié 2005; Paoli & Parent-Thirion 2003). Meeting tight deadlines all of the time (or almost all of the time) remained stable at 29%. The experience of working at high speeds for at least one quarter of respondents’ time had also increased during the decade 1990/2000, from 47% in 1990 to 56% in 2000 (Paoli & Parent-Thirion 2003). One in four people reported working at high speed all of the time or almost all of the time (Paoli & Parent-Thirion 2003). There was no significant change in 2000 (79%) from 1995 (76%) in the proportion of people who believed they had enough time to complete their work (Boisard et al. 2003).
The proportion of workers working at a very high speed at least half of the time was 20% for employees who reported no pace constraints, and then 36%, 46%, 55%, 69% and around 79% for those who reported one, two, three, four and five pace constraints, respectively (Burchell et al. 2009). Similar results were found for those working to tight deadlines and having enough time to get the job done.

Although these statistics included evidence that work had intensified over the 1990-2000 decade, analyses by Paoli and Merllié (2005) indicated that the changes had not been as marked over the second half of that decade (1995 to 2000). Aware of steadying work intensification at the turn of the millennium, Burchell and Fagan (2004) posed the following questions: Has management succeeded in removing the porosity in the working day? Has the intense pace of work been 'normalised' in work practices? Have reports and media attention of work intensity and the quality of life influenced people's working practices for the better? Exploration of these questions in the literature remains largely limited. The 2005 EWCS showed slowing work intensification for employees who reported working to tight deadlines at least half of the time (Burchell et al. 2009). However, decreasing intensification overall was not found.

The breadth of work intensity as a concept is evident in measures that were introduced to identify the organisational drivers of pace. The proportion of employees who believed that their pace of work was increasingly dependent on the demands set by their colleagues increased for the period 1995 to 2000 (from 41% to 47%) and then declined minimally in 2005 to 46% (Burchell et al. 2009; Paoli 1997; Paoli & Parent-Thirion 2003). The proportion of employees whose pace of work is dependent on the external demands of clients/customers increased over the decade (from 66% in 1995, to 68% in 2000 to 69% in 2005) (Burchell et al. 2009; Paoli 1997; Paoli & Parent-Thirion 2003).
Large-scale Data Sets - Measures of Work Intensity from Australia

In contrast to the surveys from Great Britain and the EWCS, research into work intensity has had a relatively low profile in Australia. There are several national data sets (e.g. AWIRS, Workplace Bargaining Survey) but unfortunately they are inconsistent and, therefore, are problematic in terms of gauging trends. On a smaller scale, there has been a proliferation of research based in the Australian health care sector in response to changes occurring in the industrial relations climate (e.g. Allan 1998; Allan O’Donnell & Peetz 1999; Buchanan, Briggs & Considine 2004; Weekes, Peterson & Stanton 2001; White & Bray 2003). The following section looks at some of the Australian work intensity literature to ascertain measures of work intensity. However, a paucity of data sources means it is not possible to report any trends.

At the national level, the Australian Workplace Industrial Relations Survey (AWIRS) was developed by the Commonwealth Department of Industrial Relations to compile national workplace relations data. In 1995, approximately 19,000 employees completed the survey. An index of work intensity was developed from the employee survey which was based on three items – the effort put into the job (sentiment (b)), the level of stress in the job (sentiment (d)) and the pace of work at which you do your job (sentiment (c)). Respondents were asked if any of these aspects of work had changed over the last 12 months. An increase of any one of these items indicated a low score or no work intensification within the last year of their employment. Respondents who reported an increase for two of the three variables were classified as having a moderate level of work intensity and those who reported an increase for the three variables were seen as having a high level of work intensification.

The AWIRS indicated that over half of all workers perceived an increase in work effort over the last year. Fifty per-cent rated an increase for stress and 46% cited an increase in pace of work. Twenty eight per cent scored highly on the work intensification index and a further 24% had a moderate score (Morehead et al. 1997).
The AWIRS used a large, representative sample in an effort to eliminate the limitations of recall effects that were common in some of the earlier Great British surveys based on its longitudinal component. After AWIRS in 1995, the Commonwealth stopped funding the survey and there have since been no national representative surveys in Australia of this magnitude that examine workplace change. (In 2001, the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs started funding The Household, Income and Labour Dynamics in Australia (HILDA) survey. HILDA is a nationwide panel survey with a focus on issues relating to families, income, employment and well-being. While there is some capacity to look at measures of work intensity, the data are too broad in coverage).

Consideration of the large-scale survey items provides a broad understanding of work intensity as a concept. Burke et al. (2009) acknowledges that large-scale surveys provide a means for conceptualising work intensity but the focus is generally on key aspects and therefore, the surveys are somewhat limiting in their coverage. Work intensity is a multifaceted concept comprising many characteristics and different meanings amongst writers. National studies provide a platform for understanding common measurements of work intensity and assist to build a conceptualisation of work intensity. While these large-scale surveys have used inconsistent and different measures of work intensity they have provided some insight into how the concept of work intensity has changed over the past three decades.

**Work Intensity – the Australian Research Landscape**

Moving away from national data sets, independent studies have also examined work intensity from a quantitative base. The industrial relations climate of the ‘80s and ‘90s in the UK and Australia set the context for studies on labour flexibility, processes and utilisation in response to globalisation, technology advancements and market liberalisation (Allan, O’Donnell & Peetz 1999; Gallie et al. 1998; Green 2004). The rise in the intensification of work during this time has frequently been attributed to work re-organisation or alternative approaches to labour utilisation governed by management practices (Allan, O’Donnell & Peetz 1999; Watson et al. 2003). Job enlargement (sentiments (a), (b) and (e)), increased pace of work (sentiment (c)),
reductions in idle time (sentiments (a), (b) and (c)) and extensions of the working day (sentiment (a)) are indicators of organisational structural change.

In one of these studies, Allan, O'Donnell & Peetz (1999, p.520) reported that the work of Australians had intensified as “management has sought more output per worker” (sentiment (b)). Allan (1998) argued that adjusting the effort levels of workers was a substitute for ‘quantitative adjustments in labour usage’, such as the understaffing of workplaces. In Allan’s (1998, p.137) words:

employers may attempt to increase effort levels to accommodate surges in consumer demand or they may seek to intensify work effort to improve productivity through the use of incentive payment systems, downsizing or management control strategies.

This notion of adjusting quantitative workloads, in other words, increasing the amount of work required while reducing the time frame in which work is to be completed, is recognised across the international literature as a way to get employees to work longer and harder (see Blyton & Dastmalchian 2006; Burchell 2002; Shuey & Spiegel 2010; Wichert 2002).

In another Australian study, Weekes, Peterson & Stanton (2001) further highlighted the impact of workplace reform on the working conditions of medical scientists. These authors described work intensification as “doing more with less and can be achieved by either increasing the workload of existing employees or decreasing the number of staff doing the same job” (Weekes, Peterson & Stanton 2001, p.99) (sentiments (a), (b) and (c)). Using a survey instrument that was based on the 1999 ACTU Working Time and Employment Security Survey, Weekes, Peterson & Stanton (2001) were interested in the changes that medical scientists had experienced in the previous 12 months of their employment which had affected the pace and control of their work (sentiments (a) and (e)). A survey of 80 respondents indicated that nearly 70% of respondents felt that the pace of work had increased and a further 78% indicated that their workloads had increased. Over the previous 12 months 35% felt that the amount of control that they had in their job had decreased and 29% felt that the amount of monitoring had increased with a drop in satisfaction (37%). The authors
concluded that these changes in conditions of medical scientists highlighted practices that promoted manager control as a result of cost containment.

Allan’s (1998) study of a public hospital revealed similar results and showed that the hospital achieved efficiency through increasing the workloads of its employees (sentiment (b)). In light of productivity increases, the hospital was saving on costs by employing people on lower salaries and not adequately staffing shifts which inevitably led to increased workloads or job broadening. In addition, it was found that there were declining staff well-being and morale as measured through the number of staff counseling sessions of stress, anxiety and relationship difficulties with co-workers and supervisors, and an increase in staff incident reports including compensation claims, workplace incidents, stress leave claims and quit rates. Furthermore, these findings suggest concern for job security.

Clearly, work intensification emerged as a labour market phenomenon at a time where Australia was experiencing unprecedented political change. Given the landscape during this time, there was very little research on work intensity that focused beyond labour utilisation practices. Despite the breadth of focus, these studies showed an intensification of work in Australia across two decades. More importantly, these studies emphasised the notion that time and place - principles of the life course perspective - influence our examination of work intensity. The working conditions of the organisation and industry in which these studies are embedded have clearly shaped the literature that exists on work intensity. Arguably, then, our understanding of work intensity could be enriched not just by the industry and workplace that is under examination but also the timing of the given study. This assumption provides a justification for a contemporary study on the phenomenon of work intensity that reflects the working conditions of the Australian IT landscape.

This next part of the review will look at more recent studies of work intensity in light of contemporary workplace issues. The value of including these studies in this next part of the review is their focus on the phenomenon of work intensity and its effect on the broader lives of workers. Hence, work intensity is examined beyond the domain of work.
**Broadening the Conceptualisation of Work Intensity**

One of the key underpinnings to this dissertation is the qualitative focus of intense work in consideration of the work/life of individuals. This is examined in terms of the individual’s work/life boundary or the interaction between the work and non-work domains. Up to this point, the literature has shed light on the ambiguous and problematic definitions of work intensity often at a national level through large-scale surveys. The few studies in this section of the review intend to broaden the conceptualisation of work intensity using smaller sectoral or case study samples.

In the late ‘90s, twenty UK workplaces, from diverse industries, sectors and sizes participated in the Job Insecurity and Work Intensification Survey (JIWIS). This was a year-long survey of the UK workforce that examined the complex relationships through which macroeconomic pressures translate into the workplace and impact on workers. More specifically, it was largely concerned with how job insecurity and work intensification impacted on the health and well-being of workers and their families. Within this study, work intensification was defined as “the extent to which employees are being forced to work faster and harder than they have been before” (Burchell 2002, p.61) (sentiments (b) and (c)).

Interviews and self-completion questionnaires were conducted with a mix of senior and line managers, and employees from this sample. Using self-report measures, over 60% of workers experienced an increase in the speed of their work and the effort they put into their jobs over a five year period. Approximately only 4% to 5% reported a decrease in the speed of work and effort levels and about one third of the sample reported no change in these measures.

These findings were very similar to other surveys who found high levels of reported work intensification, such as the SCELI and the EWCS. Given the framework of the JIWIS study and its interest in understanding the macroeconomic context in which work intensification and job insecurity emerged, high effort levels were attributed to increased competition and shareholder interest for organisations in the private sector. In public sector organisations,
reduced funding resulted in downsizing and the expectation that the reduced number of workers could perform the same volume of work (Burchell 2002).

In terms of the effect on psychological well-being measures, work intensification was strongly linked to positive affect at work ($\rho=-.239$), negative affect at work ($\rho=.410$) and General Health Questionnaire (GHQ), ($\rho=.375$) (Wichert 2002). Work intensification was also associated with fewer hours of sleep ($\rho=-.149$), which is often associated with psychological well-being (Wichert 2002). Health and well-being aspects have been addressed in the following studies.

In the USA, Hewlett and Luce (2006, p.51) looked at the experience of “extreme jobs”, “high earning professionals whose work has become all consuming” (sentiments (b), (c), (d) and (e)). Similar to Green’s (2001; 2004; 2006) understanding of work intensity, “extreme jobs” were argued to be distinct from long-hours jobs as they also consist of pressures that make these jobs stressful. While it is was not an explicit study on work intensity, Hewlett and Luce (2006) argued that “extreme jobs” were those where individuals work more than 60 hours per week, are high income earners and they hold positions with at least five of the following characteristics:

- Unpredictable flow of work;
- Fast-paced work under tight deadlines;
- Inordinate scope of responsibility that amounts to more than one job;
- Work-related events outside regular work hours;
- Availability to clients 24/7 (24 hours a day, 7 days a week);
- Responsibility for profit and loss;
- Responsibility for mentoring and recruiting;
- Large amount of travel;
- Large number of direct reports;
- Physical presence at workplace at least ten hours a day.

These characteristics do parallel some of the traditional measures of work intensity mentioned earlier in this review. For example, fast paced work under tight deadlines and long, work hours. Hewlett and Luce’s (2006) research was based on two surveys: one survey of over 1500 full-time, high income earners across various professions in the United States of America (USA) (aged 25 to 60 years) and the second survey of around 1000 high income earning managers (at director level or above) in large multinational organisations (aged 25 to 60 years). In addition, 14 focus groups and 35 one-on-one interviews were conducted. Survey respondents reported the following four characteristics as creating the most intensity and pressure for workers: unpredictability of work (91%), fast pace with tight deadlines (86%), work-related events outside working hours (66%), and 24/7 client demands (61%). The latter two characteristics indicate the pervasiveness of work intensity that extends beyond the domain of work to impact on other facets of the individual’s life. While this point has emerged in other studies of work intensity, it has not been elaborated upon.

It was found that the majority of “extreme job holders” in the USA (66%) loved their jobs, as related to sentiment (d) in the framework. While 64% admitted that the pressure and pace of work was self-inflicted, “extreme workers” were not likely to feel “exploited; they feel exalted” (Hewlett & Luce 2006, p.52). Long, stressful hours of work were motivated by stimulating or challenging work (90% for men and 82% women), high quality colleagues (52% for men and 43% of women), high compensation (43% men and 28% of women), recognition for work (37% for men and 42% of women) and power or status (23% of men and 30% of women). While this study focused on more than just worker's effort, these findings challenge Baldamus’ (1961) view that effort (as a proxy of work intensity) has only a negative association with feelings about work.
About 21% of high income professionals in the USA were deemed "extreme workers" (17% male, 4% female) while 45% of managers at global companies worked extremely (30% male, 15% female). Evidence suggested that women were not averse to pressure or responsibility associated with their “extreme jobs”. However, the data showed that many women were reluctant to work long hours due to their perception of potential negative effects on their children. Given that males often do not take main responsibility for children, female extreme workers were more likely than their male counterparts to report a higher incidence of negative effects on the well-being of their children. Such effects included: watching too much television, eating too much junk food, having too little adult supervision, acting out, and underachieving in school.

“Extreme jobs” were found to have repercussions on the family, home and intimate life. Nearly two thirds of men believed that their “extreme work” impacted on the strength of relationship with their children compared to only a third of women and 46% of both men and women said “extreme work” affected their relationship with their partners. These findings illustrate an influence between “extreme work” and the non-work domain of individuals' lives. This theme is intended for elaboration in this doctoral study. “Extreme jobs” were also found to have a considerable effect on workers’ health. More than two-thirds did not get enough sleep; half did not get enough exercise; and a considerable number overate, consumed too much alcohol, or used medications to treat insomnia or anxiety. Half of the “extreme workers” surveyed did not want to work under this type of pressure for more than a year. This was correlated by age. Only 19% of workers aged between 45 and 60 years were likely to leave their jobs in two years; the proportion rises to 30% for those aged between 35 and 44 years and rises to 36% for workers aged 25 to 34 years. These findings are significant in terms of the impact that the phenomenon of work intensity has on the longevity of working lives.

Furthermore, in-depth case studies can elucidate rich detail about the experience of intense work across the life course and how it affects individuals' attachment to work.

Using similar measures as Hewlett and Luce (2006) but with an explicit focus on work intensity, Burke et al. (2009) collected survey data from about 877 managers and professionals in the manufacturing sector of Turkey. About 77% of respondents were male
with nearly 90% under the age of 45 years. Work intensity was assessed by a 15 item scale using some items taken from Hewlett and Luce (2006) (and others developed by the authors of the study).

Respondents in high organisational positions and males, reported higher levels of work intensity ($BS = -0.12$ and $0.17$, respectively). Those who reported greater work intensity also indicated high levels of potentially problematic job behaviours, perfectionism and more non-delegation ($BS = 0.16$ and $0.11$, respectively). In terms of work engagement, respondents also reported more vigor, dedication and absorption ($BS = 0.22$, $0.21$ and $0.27$, respectively). The researchers also looked at work outcomes and respondents with high levels of work intensity reported both high levels of job satisfaction ($BS = 0.20$) and higher levels of job stress ($BS = 0.33$). These findings move beyond Baldamus’ (1961) initial work on work effort and suggest that work intensity does elicit both positive and negative aspects of emotional well-being. However, respondents with higher levels of work intensity also reported lower levels of psychological well-being: they were more likely to claim to be exhausted and they reported both work-family conflict and psychosomatic symptoms ($BS = 0.25$, $0.33$ and $0.22$, respectively). These results show the complex interplay between work, work intensity and well-being outcomes. While people with high levels of work intensity were found to report high levels of work engagement and job satisfaction, they reported lower levels of psychological well-being, at the same time.

These findings were supported in a further study by Fiskenbaum et al. (2010) who used the same measures of work intensity to evaluate the working capacity of hotel managers in China. These managers in China also reported high levels of work engagement at the same time as reporting low levels of psychological well-being. Like the results of Hewlett and Luce (2006), managers and professionals in the Burke et al. (2009) study reported loving their jobs but, the intensity of their jobs were found to have repercussions on the family, home and intimate life of individuals. This doctoral study intends to elaborate on these findings using case studies to elucidate an in-depth understanding of how intense work impacts on the lives of individuals working in the IT sector. This next part of the review provides a ‘prelude’ into work intensity
studies of IT work before shifting its focus to justify an examination of intense work embedded in IT work.

**Work Intensity and Technological Change: The platform for a study of intense work in the IT sector**

Work intensity is often associated with the use and change of technologies (Batstone & Gourlay 1986; Blyton & Dastmalchian 2006; Gallie et al. 1998; Green & Mcintosh 2001). Given that work effort is frequently used as a proxy of work intensity, Batstone and Gourlay (1986) found that increases in effort (sentiment (b)) (where technical change had occurred) were more likely to occur in the public sector and non-manual work samples where the scale for technical change was greatest. The authors suggested that “greater effort, then, may be the *quid pro quo* for increases in skill and worker control” (Batstone & Gourlay 1986, p.232). A study by Green and Mcintosh (2001) found that computer users experienced more work pressures than non-computer users (work pressures were strongly correlated with effort) as the use of new technologies demanded more work from individuals. Further support was offered by Green (2004) who posited a link between technological change and intensification of work. He argued that changing competitive environments and the changing structures of power between capital and labour were leading to increased work effort (sentiment (b)) of the labour force. Hence, technological change which is associated with characteristics of IT work can influence work intensity.

The upgrade of skills and knowledge could require large scale, comprehensive change or be rather minimal. Using the Employment in Britain Survey 1992 data, Gallie et al. (1998) found that workers who had experienced upskilling over the previous five years were more likely to report substantial intensification of work effort (sentiment (b)) than those with either no skill change or with a perceived reduction in skills. Constructing a work pressure index based on six physical, mental and time pressure items, much higher levels of work pressure were experienced by those who had experienced ‘quite a lot of upskilling’ (0.23) and even more so, by those who had experienced a ‘great deal of upskilling’ (0.6). Gallie et al. (1998) recognised that other factors could have influenced the strong relationship between work pressure and
skill. When analyses controlled for factors of class, age and sex, the results indicated a highly significant effect of skill change, with a greater effect than when not controlling for variables. While the link between effort and upskilling was perceived to carry a rather negative connotation, the rise in skill levels can also have positive effects for workers. For example, the increased likelihood of working on tasks that were motivating and meaningful to the worker, the probability of working on a variety of work tasks and opportunities for workers to use and develop skill sets through their work (Gallie et al. 1998). This suggests that while work intensity is high, it could lead to an overall better experience of work as was found in Burke et al. (2009) findings.

The inclusion of these studies in the review provides a rationale that the use of changing technologies increases the likelihood of experiencing some increase in the level of work intensity. However, these studies do not explore the phenomenon of work intensity nor provide comprehensive details about its impact on individuals’ lives. These studies provide a sound base for rationalising a study on the experience of intense work embedded in the context of IT work.

A stronger case for a study in IT work is evident when considering Green’s (2001) work on intensity conflation. Performance is based on the efficiency of both work intensity and skill. In environments typified by rapid technological change (a key characteristic of high-skills end IT organisations) workers are required to upgrade their skill level and knowledge to keep abreast of current technological advancements and maintain optimal employability in the market. As a result, the efficiency of the worker’s performance is challenged and dependent on their skill level which inevitably can result in intensity to meet the customer’s or manager’s requirements. Hence, in an environment of shifting and demanding skill sets, it is assumed that IT workers are likely to experience work intensity when in positions of upgrading their skills.

I now refer to some studies in the literature that have examined the phenomenon of work intensity and its impact on the lives of IT embedded occupational groups, such as software
developers or engineers. Although these studies present different conceptualisations of work intensity, they collectively provide insight into the characteristics of work intensity for individuals working in the IT sector. Furthermore, the literature in this section sheds light on the structures and institutions of IT work, particularly in small-to-medium sized enterprises (SMEs), where this doctoral research is embedded.

**Part 2 - Work Intensity in the Context of IT Work**

Up to this point, a large proportion of the research discussed in this chapter was conducted prior to the rise of the knowledge economy or ‘new economy’ which, arguably, can be traced back to the late 1990s (Feng et al. 2001). At the time of this study, there was a paucity of studies on the experience of work intensity in the current ‘new economy’ climate and more specifically, IT work, presenting a gap in the literature. This section of the review will discuss characteristics of ‘IT work’ with elaborations on ageing workers before discussing relevant literature about work intensity in the context of IT work.

**Organisation of IT work**

A common feature of IT work is its organisation around project time rather than clock time (Baldry et al. 2007; Cooper 2000; Hyman et al. 2003; Sharone 2004; Shih 2004). An individual’s working hours are guided by project or product cycles and deadlines. Sharone (2004, p.193) describes work as revolving around three phases of the ‘product cycle’, with the final phase (and a few weeks leading up to the delivery of milestones) known as ‘crunch mode’ or the ‘march of death’ given the long hours required to get the work done.

For many IT organisations at the high-skills end where they create and exploit knowledge, project cycles are largely dictated by the demands of ‘time to market’ meaning the time required to design and develop a product or service for market (Shih 2004). Organisational success and sustainability hinge on the timely release of products to market as captured by Cooper (2000, p.388):
In order to win in this world, you have to be inventive and brilliant, you have to squash your competitors by cornering the market, and you have to do it all quickly. The pace is intense: if you stop to take a breath you might miss out.

Shih (2004, p.233) elaborates, “as the pace of development in high-tech quickens, project deadlines shorten, increasing the pace of work”.

Meeting project deadlines and milestones have implications for individuals’ pace of work and their working hours. Across the literature, it was evident that workers in IT are frequently expected to achieve goals autonomously rather than rely on specific guidelines set by a manager which often leads to an erratic, hectic pace of work where “nobody dictates a specific schedule ... [but] you are trying to get the work done” (Shih 2004 p.231). Individuals, for a variety of reasons, often accept the devolved responsibility from management which tends to result in unpaid, long hours of work (Barrett 2004; Barrett 2005a; Rasmussen & Johansen 2005). For example, a desire to build an experience base and to prove themselves to colleagues and managers motivated young, inexperienced Norwegian web-designers to work hard, long hours to deliver the company’s contracts (Rasmussen & Johansen 2005). Similarly, Barrett’s (2004; 2005a) study at Webboyz saw management offer time and technical autonomy to developers so they had control over when and how they would work to complete tasks by the release date. Many of Webboyz employees were inexperienced and new to the workforce; hence they traded higher salaries for challenging, intrinsically interesting work.

In other circumstances, workers are not involved in the setting of deadlines and expectations could be seen as arbitrary and unfair (Perlow 1998). Although not all of these literature sources are explicitly about work intensity they do, no doubt, make reference to the work intensity interpretations outlined in the framework at the beginning of this chapter, in particular, sentiments (a), (b) and (c). Furthermore, this literature supports a study about work intensity in IT work.
Assigning a value to time in IT work is a complex task (Yakura 2001) which makes project scheduling a precarious process. In Hyman et al.’s (2003) study of software workers, respondents believed that work could not always be planned. Cooper (2000, p.384) goes as far to say that poor planning “is reinterpreted as a test of will, a test of manhood” that requires “sheer determination and strength of character” to achieve the deliverable. Consulting IT organisations commonly operate against a model of billable or chargeable hours with the purpose of recording the transformation of time into money. Consultants typically bill or charge eight hours of work to clients each day yet, the actual number of hours worked in IT frequently extends beyond eight. With the shortening of project deadlines to meet ‘time to market’ commitments, managers have the scope potentially to manipulate individuals’ work hours to get more work from their employees (Barrett 2005a; Perlow 1998; Shih 2004; Yakura 2001) (sentiment (b)). For example, in one study of software developers, managers exerted control of developer’s hours by imposing demands on their work time, monitoring their hours of work and modeling behaviour that they wanted workers to exhibit (Perlow 1998). In another study of Australian software developers in the late 1990s, one worker said, “well if there are deadlines to be met I’ll stay here for as long as it takes” (Barrett 2005a, p.89). Furthermore, it is not uncommon for IT consulting firms to agree to contract terms below cost or with tight deadlines (Rasmussen & Johansen 2005; Shuey & Spiegel 2010). The consequences of entering into such contracts where tight deadlines are enforced translate into long days of work for individuals.

The practice of forgoing the number of actual hours worked can be problematic in organisations where the valorisation of time acts as a measure of performance and control (Yakura 2001). Consultants with the highest number of billable hours are deemed to be of high value to the organisation and, therefore, are often rewarded and viewed highly by colleagues. In a similar vein, the monitoring of employee behaviour as a form of management control was seen in one study as a display of the worker’s commitment to their work (Perlow 1998). One manager in the study commented: “A star performer is one who doesn’t know enough to go home at night” (Perlow 1998, p.24). However, observing the number of hours spent in the office or workplace cannot be viewed as an adequate measure of performance.
Long work hours are a consistent outcome of IT work (Baldry et al. 2007; Baldry, Scholarios & Hyman 2005; Barrett 2005a; Barrett 2005b; Brooke & Hamilton (nee Topple) 2006; Cooper 2000; Kidder 1981; Kunda 1992; Perlow 1998; Rasmussen & Johansen 2005; Sharone 2004). As noted by Perlow (1998, p.331) “the managerially valued knowledge worker in today’s world – a world that demands responsiveness, adaptability, flexibility and creativity in responding to global markets and customers – demonstrates total devotion to work.” Early research by Kidder (1981, p.63) showed that workers were often made aware of the expectations of long hours prior to taking up their role in the company:

> By signing up for the project you agreed to do whatever was necessary for success. You agreed to forsake, if necessary, family, hobbies and friends – if you had any of these left (and you might not if you had signed up too many times before).

In studies of Silicon Valley (SV) (arguably, the world’s leading hub for high-tech innovation and development firms based in California), workplace practices were deemed to be so pervasive and diffuse that explicit articulation was not needed to influence the thoughts and behaviors related to the work hours of individuals:

> ... everyone here knew that. They knew they were signing up for a start-up company in Silicon Valley and that was part of the expectation. It was going to involve a commitment to a small group of people whom [sic] are all counting on each other to make the things work and there was a potentially big financial pay-off if the whole thing worked out (Cooper 2000, p.387).

The cultures and structures of IT organisations were established on the notion that IT workers place work as their highest priority and that workers do not have personal commitments that conflict with their work (Cooper 2000; Perlow 1998). To be seen as displaying one’s commitment in the organisation, a worker in one study recounted a comment made to him by his supervisor,
He said that perceptions mean a lot around here. It is important to be perceived as a person who will sacrifice personal life for work ... He specifically mentioned sacrificing family time for work as an indication of commitment (Perlow 1998, p.342).

In another study, a 10 hour day was the norm in Silicon Valley –

The culture of SV is dominated by the logic of the market. The assumption that a worker doesn’t have any outside obligations that conflict with their ability to put work first, makes ten-hour days the norm (Cooper 2000, p.387).

The view that work is unbounded and can result in long working hours is consistent with sentiment (a) and its interpretation of work intensity in the framework.

The promotion of long work hours is common amongst IT workers often noted with pride (Cooper 2000; Perlow 1998; Rasmussen & Johansen 2005; Shuey & Spiegel 2010). Cooper (2000) acknowledged the emergence of a form of (hegemonic) masculinity that ‘coincides’ with the organisation of work in the high tech industry. Displays of physical and verbal exhaustion were seen to convey “the depth of one’s commitment, stamina and virility” (Cooper 2000, p.383). While the study was not directly about work intensity, the organisation of respondents work was contextualised, indicating characteristics of work intensity. One worker commented,

Even under normal circumstances when there are no extraordinary demands you see people working thirty-six hours straight just because they are going to meet the deadline. They are going to get it done and everybody walks around proud of how exhausted they were last week and conspicuously putting in wild hours. It’s a status thing to have pizza delivered to the office. So I don’t know why it happens, but I really feel like it is kind of a machismo thing, I’m tough, I can do this thing. Yeah I’m tired but I’m on top of it, you guys don’t worry about me, I can get my thing done ... The people
who conspicuously overwork are guys and I think it’s usually for the benefit of other
guys (Cooper 2000, p.383-384).

**Individualist Work Trajectories**

Lifetime or long-term employment is not deemed to be characteristic of the new economy
(Baldry et al. 2007; Barrett 2005a; Cooper 2000; Scholarios & Marks 2004; Shih 2004). In
fact, short-term employment with frequent job mobility or job-hopping appeared to be
common practice in IT work (Barrett 2004; Barrett 2005b; Cooper 2000) particularly for
individuals working in SMEs where there is limited career progression and stability in
organisations of smaller size (Baldry et al. 2007; Marshall, Craft Morgan and Haviland 2010).
“Workers are treated as responsible for their own livelihoods and must continuously develop
skills to maintain their own marketability” (Shih 2004, p.227). It explains, at least in part, why
individuals drive themselves to work hard in order to remain employable. This notion was
inferred from the studies of Barrett (2004; 2005a; 2005b) and Rasmussen and Johansen
(2005). The pursuit of employability is raised as a source of work intensity and although it
has not been explicitly examined in the literature it further supports a study of the
experiences of intense work for individuals who work in the IT sector.

Shih (2004, p.223) argued that individuals in Silicon Valley are de-linked from organisations
where workers are seen as ‘entrepreneurs of their own careers’. There was an understanding
that workers in Silicon Valley ‘manage themselves’; invest in the gaining of new skills and
awareness of new developments to remain marketable, ‘prove their worth’ to the company as
well as persistently monitor opportunities beyond the firm with no expectation of company
loyalty. In fact, individualist ideologies for success were deemed to be highly valued over a
collectivist identity. This belief in individuals as entrepreneurs of their own careers pushes
workers to see the hectic, erratic pace of work as an individual pursuit rather than within the
interests of the company. It should also be noted that Silicon Valley is viewed as the land of
opportunity where some workers believed they had the potential to ‘strike it rich’, further
fuelling the desire to work hard.
Cooper’s (2000, p.390) study of masculinity among knowledge workers in Silicon Valley recognised a different career structure for workers of the new economy, away from permanent employment: “one’s career is one’s own possession, independent of any particular firm. Thus, concern over employability may serve as a powerful tool for creating identities rooted in work.” These identities with a heavy focus on upskilling and building a career reflected an internal source or driver of work intensity. Furthermore, these sentiments were also found in studies mentioned previously where the requirement for new individuals entering the workforce to build an experience base (alongside attractive, intrinsically challenging work) resulted in the exertion of effort and long hours of work (Barrett 2004; Rasmussen and Johansen’s 2005).

Individualist pathways in IT work were recognised across research studies with great importance attached to acquiring marketable skills. Long hours, temporal and functional flexibility were seen by IT workers as part of an investment into developing sets of competencies and skills (Baldry et al. 2007, p.140). Baldry, Scholarios & Hyman (2005) suggested that the working of long hours to meet tight deadlines was not necessarily a sign of a software developer’s commitment to the organisation but rather a commitment to the job and the identity of a software worker. The commitment of software developers to their organisation was largely dependent on the alignment of values between the organisation and the professional community, and opportunities for workers’ professional development. Similarly, using the same data as Baldry et al. (2007) and Baldry, Scholarios & Hyman (2005), Scholarios and Marks (2004) showed further support, and found that software workers’ were not looking for long-term employment with one employer but were evaluating employers in terms of interesting work and opportunities for development. While the literature indicates that IT workers’ pursue individualist careers, Perlow (1998, p.354) simply notes that “perceived ‘selfless’ commitment to the organisation leads to personal success.” Working for the organisation as much as for themselves workers recognised that the organisation’s success was a prerequisite for their own success.

Extrapolation of these findings to other regions should be carefully considered as Shih’s (2004) and Cooper’s (2000) work focuses heavily on workers in the high-skills professions
based in Silicon Valley, the pinnacle for ‘capitalist’ possibility. A similar situation exists with some of the literature from Scotland. The research findings from Baldry et al. (2007), Baldry, Scholarios and Marks (2005) and Scholarios & Marks (2004) were all based on one data-set and, therefore, consideration is required when making assumptions about the prevalence of findings.

**Rapid Technological Change and its Implications for IT Workers**

A key characteristic of IT work is the rapid change and unpredictability of the environment (Baldry et al. 2007; Benner 2004; Castells 2000; Demaiter & Adams 2009). Work demands and knowledge are constantly shifting which requires workers to continuously upgrade their skills (Adams & Demaiter 2008; Shuey & Spiegel 2010). For individuals in IT work, the longevity of their careers largely hinges on their ability to be adaptable through current, marketable skills sets and a capacity to pursue ongoing learning across the working life (Adams & Demaiter 2010; Barrett 2005b; Castells 2000; Shuey & Spiegel 2010). Within the WANE study, many respondents working in SMEs agreed with the statement, ‘I feel pressure to continually learn new skills’ (Adams & Demaiter 2010). More specifically, 60% of Canadian respondents, 67% of American respondents, 61% of English respondents and 64% of Australian respondents felt pressure to continually learn new skills (Adams & Demaiter 2010, p.133).

Broader studies of training and career development within the IT field suggest that responsibility for these areas lies with the individual (Adams & Demaiter 2008; Baldry et al. 2007; Barrett 2005b; Benner 2004; Brooke & Hamilton 2006; Marshall, Craft Morgan & Haviland 2010; Shih 2004). The prevalence of rapid change presents significant employment challenges for IT individuals. In Duerden Comeau and Kemp’s (2007, p.223) study of individuals working in SMEs, one IT worker commented,

> Workers appear to face a great deal of pressure to learn new things and keep their skills up-to-date: ‘you’ve got to keep on the ball all the time ... if you’re not learning something you’re done.'
These sentiments featured frequently in the literature. In a study of 14 Australian software developers from 2002-2003, one worker commented, “If you don’t keep up with the technology sector you lose” (Barrett 2005b, p.203).

Investment in human capital occurs through both formal training and informal learning (Adams & Demaiter 2007; Adams & Demaiter 2010; Barrett 2005b; Benner 2004). However, Adams and Demaiter (2008) suggest that formal education is problematic for workers, particularly those in innovative IT work, as techniques used today can be obsolete tomorrow. In a conference paper presented by Adams and Demaiter (2007), a Canadian worker from their study commented: “you can’t get training on what we do ... No training courses exist when you're innovating. It's that simple. People train themselves through what they innovate.”

In the WANE Phase II report, Brooke and Hamilton (nee Topple) (2006) found that workers in the high-skills end of SMEs were expected to be autonomous workers where at the low-skills end, there was a depreciating skill level and with that, reduced marketability for individuals. If viewed on a continuum, high-skills means a set of skills that are at the leading edge and which are highly susceptible to the fast pace of change. These workers were innovating IT workers or what Castells (2000, p.12) deemed ‘self-programmable’, workers who are “equipped with the ability to retrain, and adapt to new tasks, new processes and new sources of information.” Low-skills can be viewed at the polar end of the continuum where workers do not experience demand for IT skills that meet high technological change in the industry. Castells (2000, p.12) describes these workers as ‘generic’, who are “exchangeable and disposable” given their lack of flexibility and current skills.

Indeed, the attitude of both small firms that employed the participants of this doctoral study was that career management and subsequent investment of skills were largely the responsibility of individuals (Brooke & Hamilton (nee Topple), 2006). Access to formal training funded by the employer was restricted in these organisations and time to pursue research and self-learning within employment time was limited for most individuals given the
deployment of chargeable hours. It is important to examine the pursuit of employability through learning and training as the literature implies employability as a source of intensity for workers. While this association has not been explicitly examined in the literature for IT workers, this next part of the review will justify the study of intense work in the IT sector and the challenges to upgrade skills in light of ageing issues. This next section will focus on literature with regard to learning and training workers, both young and old.

**Age, Learning and Training**

There are limitations of the individual that can impact on the learning of new knowledge or skills. Clearly, ageing is seen as a process that is associated with a decline in the senses, such as vision and hearing, memory, attention and processing speed (Charness & Czaja 2006). One's capacities in these areas can influence the ease of learning new skills and subsequently, the individual’s confidence levels which can clearly interfere with the acquisition of knowledge (Cau-Bareille & Marquié 1998; Jorgensen & Taylor 2008a; Jorgensen & Taylor 2008b). For example, Charness & Fox (2010) suggested that a lack of confidence may play a role in whether training is offered or declined by older workers (workers over 40 years) in the IT sector.

According to Charness and Czaja (2006), there is lack of clarity within the available current research with respect to the relationships among ageing, cognition and work productivity. What is clear is that new information becomes more difficult to learn as one ages (Charness and Czaja 2006; Skirbekk 2008). The literature recognises that older adults (aged in their 60s and 70s) take 50 to 100% longer than younger adults (those in their 20s) to perform any new task (Amalberti, Pélegrin and Racca 1991 cited in Cau-Bareille & Marquié 1998; Charness et al. 2001; Charness & Czaja 2006).

While there is evidence to support a slowing of learning capacity in older adults, some studies show that performance does not decline with age on learning tasks that appeal to prior experience (Cau-Bareille & Marquié 1998; Charness et al. 2001; Skirbekk 2008). A study by
Charness et al. (2001) of adults learning to use new word processing software extends this thinking to a real-world setting. A cross-section of young (mid-20s), middle-aged (mid-40s) and older (mid-60s) adults were split across two different groups: those with no word processing experience and those who had experience with similar word processing application to that being tested. While age differences were evident for the novice group of users (performance declined with age), there was no real difference in performance across the age groups in the experienced users group. Hence, the role of prior knowledge helped improve performance for both speed and accuracy and, therefore, positively influenced the results of training. However, when looking at self-paced training, the middle-aged and older-aged adults took much longer and experienced more difficulty with self-paced training than their younger counterparts; older adults took twice as long.

Cau-Bareille and Marquié (1998) replicated a similar study using a typing course but with adults aged 25 and under and older adults between the ages of 34 and 47. Groups were comprised of participants who were ‘somewhat familiar with a keyboard’ and a group who had ‘never touched a typewriter.’ Their findings were rather consistent with the findings of Charness et al. (2001). That is, there was a relatively moderate performance disparity between the younger and older age groups; however, the combination of age and lack of experience led to slower response times and a high number of errors.

Clearly, slow response times and error rates translate unfavorably in the context of employment. While there is some evidence to suggest that the slowing associated with learning may be put down to older adults’ preferences for accuracy over speed (Charness & Czaja 2006), this finding is not well supported in the studies featured here. What is known is that the consolidation of information from short term to long term memory takes significantly longer for older adults. The learning of new information will be dependent on one’s experience with the data being learned. Individuals with some prior experience of the information being learned or related learning are likely to have this information stored in their long term memory which means they can learn new information much faster than if it is a totally new learning experience (Charness & Czaja 2006). Whilst these studies might suggest that some older workers are slower than their younger colleagues to acquire new
skills, older adults are able to learn new skills, even those involving new technologies (Cau-Bareille & Marquié 1998; Charness & Czaja 2006).

However, this finding has some limitations. A study by Amalberti, Pèlerin and Racca (1991 cited in Cau-Bareille and Marquié 1998) of pilots learning to fly a new aircraft revealed that educational background and qualifications did not spare individuals from some of the problems associated with technological change. Older trainees were found to require more training time than their younger counterparts: 3.4% more time for pilots under 30 years, and up to 22% for pilots over 49 years, increasing substantially for those over 45 years. Furthermore, performance on the final exam showed significant differences between the older and younger age groups with a 6% failure rate for the younger trainees and as high as 17% for trainees 45 years and older. These findings were similar to those noted above in the studies by Charness et al. (2001) and Cau-Bareille and Marquié (1998).

The authors attributed the variability across the age groups not to age but to other significant factors. The new aircraft had a revised piloting system with which older pilots were not familiar. Consequently, the older pilot's procedural knowledge needed to be transformed to a greater extent. Results were also influenced by the poor English of participants (English was a second language for participants and the test was in English). In addition, participants were less familiar with computers which were a key part of the training method and course content.

These studies have interesting implications for workers when translated to an IT context. However, any application of these findings to the IT workforce should be made with care. It must be recognised that these studies are based on formal training programmes. In the IT sector, many workers tend to learn informally through social networks and self-learning activities (Adams & Demaiter 2008), particularly in SMEs where there are limited resources for formal training and career development (Baldry et al. 2007). It cannot be assumed that educated and qualified individuals are able to invest effectively in their human capital.

study of pilot training showed that training for the flight of a new aircraft was easier for pilots who were familiar with different airplane models suggesting that some exposure or prior knowledge is beneficial to the outcome. Yet, it was problematic for the worker if he/she needed to re-configure their procedural knowledge to a great extent. Skirbekk (2008) supports this finding and suggests that older workers are less able than their younger colleagues to re-orient themselves to new tasks or novel problems, leading to reduced productivity. These findings translate rather neatly into an IT context to explain the difficulties older IT workers could potentially experience in upgrading skills and knowledge in situations that require re-configuration in their procedural knowledge. It could be assumed that the pursuit of learning software or technologies that are different from what one is familiar would present challenges for the older worker.

As indicated earlier, IT workers tend to upgrade skills informally which is most likely to be performed at their own pace. The finding from Charness et al.’s (2001) study of self-paced training that middle-aged and older adults took longer than younger adults suggests that this method of learning could be problematic for older IT workers. Given that upgrading skills and knowledge tends to occur outside of formal work hours, self-learning might not be an efficient or effective learning method for the older IT worker. Regular, consistent training across the trajectory can narrow the gap between already acquired skills and the acquisition of new skills, alleviating some of the challenges that older workers might experience with learning across the trajectory (Cau-Bareille & Marquié 1998).

More importantly, when considering the literature, it should be recognised that older workers are not a homogenous group where age is predictive of all of their characteristics (Cau-Bareille & Marquié 1998). Older adults will not always be slower than their younger colleagues to learn new skills. The experienced older worker might have a raft of learning strategies to draw upon (which for technically based IT workers is likely), given the expectation for regular upgrading of skills across their work trajectory. The use of in-depth case studies is expected to provide rich data about the experiences of upgrading skills across the life course for individuals working in the IT sector and whether individuals deem this activity as a source of intense work.
The rapid technological change in the IT industry and the requirement for individuals to be adaptable raises the notion of survival of the fittest. Skirbekk (2008, p.6) commented, “if older workers cope less well with changes in the workplace, then rapid changes should affect them worse than younger age groups.” In industries with unexpected, rapid technological change older workers were found to retire sooner because of the faster depreciation of their capital (Bartel & Sicherman 1993; Brooke & Taylor 2005). Within the IT sector, the persistent upgrading of skills required in high-skills organisations is assumed to be exhausting, especially for older workers who have experienced recurrent waves of investment in human capital over their working lives. In support of this assumption, research conducted by Shuey & Spiegel (2010) found evidence to suggest that the stress associated with the need for current skill sets drove some older IT workers out of the field: A Chief Executive Officer (CEO) interviewed for their project commented:

To stay in your career track you have to go through the hard part of skills acquisition that the rest of the work does before they're 25, for the most part. And, the people [in IT] have to go through it, you know, in every decade of their life to remain an IT specialist ... that's a contributor to burnout.

This was further acknowledged in Barrett’s (2005b, p.203), study of Australian software developers, where one older developer with family responsibilities commented, “the ground is shifting underneath me so I’ve got to keep up and how long can I keep that up for. I don’t know ...” Failure to pursue or have relevant skills is most likely to lead to obsolescence and potential exit from the IT industry prior to reaching older age.

On the other hand, workers who reach older age in the IT industry could be assumed to be the most capable as they have managed to sustain productive employment late into their working lives. These assumptions, together with the scant research into ageing in IT work, emphasise the need for current examination of this area. Some studies that do exist are discussed below.
Ageing in the IT Sector

There appears to be a scarcity of literature on ageing in the IT sector with the exception of studies using the broader WANE data. Across much of the literature in this area is the general perception that the nature of IT work is better aligned to the younger rather than older worker. This has been found in the context of skill acquisition, learning and job performance which have consequences for overall employment opportunities. Evidence exists to support the view that job loss is greater for older workers when the rate of technological changes is high (Bartel & Sicherman 1993). In terms of knowledge and skill acquisition, McMullin, Duerden Comeau and Jovic’s (2007) study provided an insight into the perceptions of ageing and technological innovation. Their study looked at generational identity and formation in relation to developments in computing technology to assess how it influences cultures of difference in the IT workplace. Findings from the Canadian sample revealed that some participants perceived technological innovation as generational and, therefore, technological adeptness and expertise were linked to new entrants to the market (implying younger workers). These findings suggest that “technological skill and capacity for innovation are linked to youthful exposure to computing technology” (McMullin, Duerden Comeau & Jovic 2007, p.313). Not surprisingly, the use of the same data in a study by Duerden Comeau and Kemp (2007, p.223) found that “age or growing older [was] understood as the antithesis, that is becoming slow, awkward and ill-suited to the field of play.” Younger IT workers in this study were seen to be in the advantageous position of upgrading skills and knowledge, attributing their success of maintenance of learning to the ‘nimbleness of youth’. The association between ageing and technology use clearly impacts on one’s employability in the market. This is eloquently surmised by McMillan and Morrison (2006, p.80) who state that “technology so defines this generation of young adults that not using it means running the risk of being left out.” Regardless of age, a lack of current technological skills has the potential to present significant employment challenges for individuals (Adams & Demaiter 2010; Barrett 2005b; Castells 2000; McMullin, Duerden Comeau & Jovic 2007). Furthermore, these studies justify research to understand firstly, whether challenges of employability are associated with experiences of intense work in the IT field and, secondly, to understand more about the experience for ageing individuals who work.
Older workers are likely to suffer the effects of prejudice from stereotypes about age-related performance decline which has an effect on their employment opportunities (Brooke & Taylor 2005; Jorgensen & Taylor 2008a). In IT work, there is an expectation for workers to be flexible, adaptive and to engage in continuous skill upgrade particularly in high-skills end organisations. A concern for the older IT worker is the perception of employers about the capacity of older workers to be adaptable. A survey of over 500 employers in Australia found that 74% of employers believed that younger workers adapted more easily to new technologies (Steinberg et al 1994). A further study by Aubert, Caroli and Roger (2006) found that firms using new technologies were more likely to recruit younger workers than older as the latter were viewed to be less adaptable in a fast changing environment. More specifically in IT work, Brooke (2010) provided a comprehensive analysis of gender and age influences of negotiating power to show that older workers who did not maintain marketable skills and productivity demands did not fare well compared to younger IT workers. Older workers with somewhat redundant IT skill-sets that were aligned mainly to legacy technologies were deemed to offer ‘devalued labour’ in the IT sector.

These results are highly consistent with findings in McMullin, Duerden Comeau and Jovic’s (2007) and Duerden Comeau and Kemp’s (2007) studies and highlight the vulnerability and limited position of power of older IT workers. General studies on older workers and employment relations further supports this notion (see Itzin & Philipson 1993; Mayhew, Elliott & Rijkers 2008; Skirbekk 2008; Victorian, South Australian and Western Australian Equal Opportunity Commissions and The Australian Employers’ Convention 2001). For example, in a case study analysis of four Australian and UK public and private sector organisations three of the four case study organisations’ investment in skill development in new technologies and broader opportunities for staff development were more likely made available for younger workers (Brooke & Taylor 2005). As a consequence, younger workers ascended the organisational hierarchy despite their limited experience, thereby displacing older more experienced workers whose career trajectories had reached a plateau or were in decline. In contrast, it has been reported that educated older workers can fare better than less educated older workers in regard to negotiation of wages (Mayhew, Elliott & Rijkers 2008). Again, however, the success of older workers’ labour market position is linked to education and skill level.
More specifically, in an IT context, an Australian based study within WANE, conducted by Brooke (2009) found that the operation of stereotypes and generalisations of older IT workers’ capacities were a platform for reduced competitiveness in the labour market. ‘Extended careers’ in IT firms were unlikely particularly in organisations with work intensity practices, as ageing and knowledge work were seen as highly incompatible. This finding has considerable ramifications for ageing individuals who work in IT, and raises the question of whether or not individuals can build a successful and productive career in the IT sector across their working lives into older age.

This section of the review has considered the literature about work intensity in the context of IT work and has provided a rationale for a contemporary study about the experience of intense work positioned in the IT sector. The next part of this review details another significant aspect of this study, the examination of intense work in light of the work/life interface. This focus will enable a focus on the impact of intense work on the broader lives of individuals who work in the IT sector.

Part 3 - Work Intensity and IT Work in the Context of the Work/Life Interface

There are few studies that examine IT work and work intensity, in an explicit sense. Furthermore, there are even fewer studies or research that emanates from Australia. This next section of the literature review features studies that examine work intensity in the IT sector from the context of the work/life interface. However, prior to the presentation of this section, a discussion is provided of what is meant by the work/life interface.

The Work/Life Interface

One of the limitations in the earlier work intensity literature was the examination of the concept exclusively in the domain of work. Recent literature acknowledges the pervasiveness of work leading in some cases to a ‘blurring’ of boundaries between the work and non-work domain (Rasmussen & Johansen 2004; Shih 2004; Shuey & Spiegel 2010). However, the work
intensity literature does not recognise that the work trajectory is interdependent with other trajectories such as health, family, and so on. Clearly, if workers’ trajectories are mutually exclusive and if the work boundary can be described as ‘blurred’, people’s constructions of intense work are likely to encompass broader factors that extend beyond the domain of work (rather than those that are confined to the domain of work). It is important, therefore, that intense work be examined in a broader context that acknowledges the types of boundaries between work and non-work domains.

The dichotomy between ‘work’ and ‘life’ is dynamic and has shifting terms within the literature. Early studies of boundary discourse initially focused narrowly on the domains of ‘work’ and ‘family’ or ‘work’ and ‘home’ (Pringle & Mallon, 2003). More recently terms within the literature have broadened to encompass a ‘work/life’ framework, which is considered more useful for examining how work is affecting individuals in broader household and social contexts (Skinner & Pocock 2008).

The relationships between the domains of an individual’s life are rooted in the concept of boundaries or borders. Boundaries refer to the physical, temporal, emotional, cognitive, and/or relational confines that structure and define entities from one another (Ashforth, Kreiner & Fugate 2000; Olson-Buchanan & Boswell 2006). Offering a continuum for viewing the relationship between domains, Nippert-Eng (1996) suggests that individuals vary in the extent to which their roles are segmented or integrated across the domains of work and home. At one extreme the domains of work and home are fully integrated with no distinct conceptual boundary separating the domains (Nippert-Eng 1996). In contrast, at the other end of the continuum, the experiences of work and home are conceived as separate, segmented worlds.

**Work Intensity in IT Work and the Work/Life Interface**

A reference earlier in the review described the nature of IT work and the argument that workplace practices assumed that individuals had no conflicting demands that would impinge
on their work and non-work lives (see Cooper 2000; Kidder 1981; Perlow 1998). The typical software engineer or individual working in IT more broadly is often described as having no boundary between their work and non-work domains (Kidder 1981; Kunda 1992; Perlow 2001; Scholarios & Marks 2004). While the work/life boundary is seen to be more ‘blurred’ (Rasmussen & Johansen 2005; Shih 2004; Shuey & Spiegel 2010) or ‘fluid’ (Baldry et al. 2007; Hyman et al. 2003; Hyman, Scholarios & Baldry 2005) for knowledge workers, the work and non-work domains are viewed to be ‘integrated’ rather than ‘separated’ for the average software worker (Scholarios & Marks 2004). Given these findings, it seems appropriate for a study to examine the phenomenon of work intensity in consideration of the work/life interface. This next part of the review intends to focus on the interface between the phenomenon of work intensity in IT and individuals’ non-work domains or lives. In particular, attention has focused on individuals working in IT with child-care responsibilities and ageing IT workers.

A key study of IT work and its implications for the work/life of individuals was conducted by Hyman et al. (2003). Mixed methods case study research was used to examine work-life imbalance in four call centres and five software development companies in Scotland between 1999 and 2001. For the purposes of this study, the review will only focus on the results of the software development industry. The sample of software development workers comprised 296 workers: 220 males and 76 females with approximately 75% aged 40 years and younger (36% were between 21 and 30 years, 36.5% between 31 and 40, 20% 41 to 50 and a further 6% over 50). The selection of company case studies was representative of national software development firms and included a medium sized private company, one company linked to a large national telecommunications company and three small, private firms.

The study examined the extent to which workers in the software development sector reported tangible and intangible extensions of work into their home and family lives. Tangible extensions were identified as objective consequences of changing work patterns, like expectations to work unpaid overtime, unpredictable changes to work shifts and taking work home for completion. Intangible extensions into household life, on the other hand, were seen as incursions imported from work like the effects on health, stress and time. They could
include feelings of exhaustion, poor sleeping patterns or continuous worry about work. Whilst Hyman et al.’s (2003) study was not explicitly about the effects of work intensity, it is worth acknowledging the nature of demands of software development work and the effect on the workers non-work lives.

The results showed that the boundaries between work and non-work domains were fluid with software developers reporting that they were so involved with their work that it was often difficult to see where work ends and leisure begins. Approximately two thirds of respondents worked unpaid overtime; over half of these reports were to meet tight deadlines. Unpaid overtime in IT work was found in Shih’s (2004) study where work was organised around project time with respondents mentioning that work was cyclical and could not always be planned. Hyman et al. (2003) found that over two thirds of software workers reported taking work home to complete. This behaviour or tendency, however, could be a result of the conceptual nature of their work, which is less bounded by spatial location, and tasks, therefore, do not need to be physically conducted in the workplace.

In terms of the intangible incursions, there was evidence of spill-over from work to home life: 40% of workers reported feelings of exhaustion after work; more than half reported thinking about the job after leaving work; and one third felt stressed because of their job. Further analyses that focused on employees with greater work and home demands supported the finding that managers were more likely to experience heightened feelings of stress and exhaustion, and taking work home to complete.

The fluidity of the work/life boundary was further captured in Shih’s (2004) study of project time and pace of work of Silicon Valley high-tech workers. The erratic, quickened pace of work tended to displace and disrupt workers temporal domains of ‘bodily time’ and social ‘interaction time’. The consuming nature of individuals’ work tended to impact on the time required for the care of their bodies, often in terms of sleep deprivation, burnout and in an extreme case, stroke. In addition, the temporal rhythms of work impacted on people’s social relationships with many commenting on the difficulty of maintaining romantic and family
relationships and forging friendships outside a professional context. Shih (2004) presumed that work had a higher preference to individuals than other temporal structures within their lives. The study by Hyman et al. (2003) had more representation from an older IT workforce (26% were older than 41 years), representation in Shih’s work notably favoured younger workers. While these samples were most likely to reflect the youth profile of the IT workforce further research looking at older individuals who work in the sector could prove fruitful to understand how work intensity impacts on individuals and influences the management of boundaries across the life course.

It is clear from the studies discussed above that the characteristics of work intensity (and in the rare case where explicit work intensity studies have been found and used) present significant challenges for the management of boundaries between the work and non-work domains of IT workers lives. The typical software worker’s life tends to view the work and non-work domains as integrated rather than separated (where separation infers little interaction between the two) (Scholarios & Marks 2004). This supports the view that there is some blurring or fluidity between the domains for IT workers. The works of Baldry et al. (2007), Baldry, Scholarios & Hyman (2005) and Hyman, Scholarios & Baldry (2005) showed that job influence and autonomy gave workers some control over the boundary between work and non-work domains. While studies by Barrett (2004; 2005a; 2005b) and Rasmussen and Johansen (2005) have revealed greater insight into the worker’s experience of autonomy as a management strategy to control the labour process, the former research studies suggest that time autonomy does provide workers with flexibility to manage the potential conflicts that could arise between work and family roles.

Although an individual’s influence in IT work can provide flexibility for the individual to manage the boundaries between work and non-work roles, these findings were somewhat influenced by the sample of workers and the timing of the research. Effective management of the work/life boundary was attributed by the investigators to a function of gender and the strong labour market position prevailing at the time of the study. A large proportion of the sample were male and given that the majority of domestic labour continues to fall on women, the male respondents were perceived to be not as likely to experience conflict between their
work and responsibilities for child care. Hence, these findings have limited application to the broader IT workforce, most notably female IT workers. It is also worth noting, as the authors do, that these studies took place at the time of the ‘IT boom’, when the IT market was quite prosperous and when workers were more likely to be mobile in search of more optimal employment options. Furthermore, the employing workplaces of the study’s respondents tended to offer family friendly policies which assisted workers with the potential conflicts between work and family. While these studies have been invaluable in their contributions to the literature, these findings also support the need for current research that reflects a more contemporary economic climate post the ‘IT bust’ with broader application to both working IT mothers and fathers. The use of in-depth case studies is likely to shed greater insight into the experience of intense work in the IT sector and its impact on individuals’ broader lives.

**IT Work and the Family**

This doctoral study aimed to examine intense work for individuals working in the IT sector and its impact on their lives. Of special interest was the interaction of intense work with individuals’ family trajectories. While studies on the formal concept of work intensity in IT are scarce, the studies in this review consider the challenges that IT workers experience when combining family demands with IT job responsibilities. In Rasmussen and Johansen's (2005) study of web-designers and system developers, the authors inferred that these positions were better placed for young, inexperienced workers who wanted to learn. When autonomy for working time and results became excessive for workers who had family responsibilities many were faced with the dilemma of either participating fully at work or finding another job with ‘normal’ work hours. In support of these findings, Shuey & Spiegel (2010) found incompatibility between the demands of work in IT alongside childcare responsibilities. This study referred to work intensification, yet focused more specifically on long hours and lack of boundaries between work and family. The authors’ data suggested that IT workers had difficulty reconciling the demands of IT work with the new role of parenthood which led to workers leaving the industry. It should be recognised that the generalisability of these studies is limited given the small sample sizes. Furthermore, the latter study tended to focus on workers who are also mothers - reflecting that the majority of domestic labour is performed by women (Baldry et al. 2007; Perlow 1998). This assumption is supported by national
statistics, which recognises that in Australia, women on average do twice as much domestic and care work than men (Australian Bureau of Statistics 2008).

A study by Perlow (1998) examined how managers control the hours that employees work (this study is relevant to sentiment (a) and its interpretation of work intensity.) Perlow (1998) developed a theory of boundary control that is based on the response of the employee and their spouse. Employees either accept or resist manager's boundary control as do their spouses which results in four types of married employees. These types include the careerists, compromisers, jugglers and rejecters.

Careerists were employees who accept the demands at work as do their spouses who perpetuate this acceptance by assuming responsibility for household chores. These employees devote themselves totally to their work. All careerists in Perlow's (1998) study were male. Compromisers were employees who resist boundary control by making themselves unavailable to work. Their spouses accept boundary control and expect the worker to participate at home with non-work tasks and responsibilities. The careers of compromisers can potentially be negatively affected. There were one male and two female compromisers. Jugglers (of which there was only one female) accept the demands at work whilst balancing their spouse's resistance. This is a highly demanding position that leads to a high degree of anxiety about the trade-offs one must continuously make. Rejecters were couples who both resist boundary control. These couples tried to create alternative ways to work within constrained amounts of time but none of them benefited from these efforts in terms of career prospects. There were two male engineers and one female engineer in this group.

This categorisation has interesting ramifications for the boundary management of IT individuals who experience intense work. In terms of career progress, Perlow (1998) suggested that engineers who were either single without responsibilities outside of work or engineers deemed careerists will be able to respond to boundary control and meet the demands of work (as they do not have commitments outside of work that will impact on their
ability to manage their work demands. If they do, their spouses will manage the non-work responsibilities). The career progress of the software engineers in the other categories will experience greater complexities or disadvantages because: the compromiser experiences pressure in their non-work domain to share responsibilities at home; the juggler must balance their strong commitment to work with primary caring responsibilities of the house and children; and, the rejecter is either not committed to succeed or has demands of their time outside of work. Hence, the inference is that the experience of intense work is pervasive and will damage the careers of IT workers who have responsibilities in their non-work lives. Of further interest to the dissertation was that careerists, those in the most optimal position of career success, were male. The jugglers, the second most likely group to experience career success yet at the expense of considerable anxiety from balancing high commitments to the family and work, were female. While the categorisation is based on a small sample these findings somewhat mirror results from other IT studies.

So, while it is clear that a study of intense work for individuals working in the IT sector is justified given the literature presented in this review, what is the experience of intense work like for individuals who have other responsibilities in their non-work lives? One of the earlier studies of IT work and parenting is Crump and Logan's (2000) study of factors that influenced the decision of 20 New Zealand women to take up careers in computing. After having a child, four of the twenty women in their sample returned to work, in a part-time capacity, and commented favourably on the flexibility of combining computing work with child care. These women returned to work at a more junior level than when they initially left and had firm beliefs that women had to be adaptable and flexible upon returning to work in order to effectively combine childcare with work responsibilities. (It was not known whether these women returned to part-time work at their own discretion and if payment of junior wages was a result of taking on work with lower responsibilities than performed prior to leaving to have their children. These data would have been invaluable to determine the degree of pay off expected of IT women). Within the sample, a child-less IT manager was in some disagreement with these women and thought that it would be difficult for women returning to computing work after child bearing because of the industry's high rate of change. (This finding is consistent with the findings from other studies of working IT mothers and will be discussed later in this review).
In Crump and Logan’s (2000) study the difference in views could be attributable to many factors. It is likely that women’s views about managing children and work would be influenced by the positions they occupy in IT. The part-time working status of the four women and the fact that they were on junior rates leads to the assumption that the four mothers did not occupy senior roles or management/supervisory roles that are likely to facilitate a pathway to senior positions. Occupational segregation is recognised in computing work with a concentration of women occupying roles which are low in status, power and rewards (Panteli et al. 2001). Consequently, these women might not view a short exit from work and returning to work part-time as negatively impacting on their career trajectory. Findings from the Australian Work and Life Index (2008) have found that part time workers had a better work-life interaction than full-time workers (Skinner & Pocock 2008). This finding supports the assumption that part-time work options might also be more conducive to women with caring responsibilities rather than a full-time employment load.

In addition, the four women in Crump and Logan’s (2000) study were considered to be ‘older’ workers, those who entered computing working on mainframes prior to the advent of the personal computer. A further note about this study was that the majority of these women in the sample had no tertiary experience which could indicate the type of position they occupy. In a study by Marks and Scholarios (2007) respondents with non-IT qualifications were carrying out more routinised work whereas those with IT qualifications were more likely to occupy positions of higher skilled work. Furthermore, these women might not be exposed to roles that demand consistent upgrading of skills which is likely to exacerbate conflicts between work and non-work lives.

The pace of change in the IT industry and an emphasis on investment of human capital makes it challenging for women who have child care responsibilities. Demaiter and Adams (2008) recognised that the rapid change in IT work and the expectations of individuals to keep up to date through constant learning were not conducive to women who take maternity leave or who have childcare responsibilities. This was indicative in the following comment by one respondent in their study:
Well, IT changes very, very quickly. One year out, it means that it is going to take you probably 3-4 months to catch up and that is a lot of dedication to make that catch up (Adams & Demaiter 2008, p.45).

This could be compounded further in cases where women worked the ‘second shift’ (Hochschild 1998), working in employment during the day and taking up care of their children in the non-work domain (Adams & Demaiter 2008).

There was a sentiment across studies that motherhood had a negative impact on women’s careers. Perlow’s (1998) study of boundary control highlighted the trade-off women continually make when striving to commit to work and to family. One female software engineer described the persistent tension she experienced between work and family. She had proposed one scenario to alleviate her anxiety but acknowledged that it would be damaging to her career. She said:

I feel like I need more time, more time at home and more time at work ... If I truly thought we had enough money on one salary, I would quit working, at least for a few years. But I am afraid that that I would never get the same opportunities again (Perlow 1998, p.351).

This worker’s concern about the effect exiting the labour market could have on her career was supported in a recent study by Demaiter and Adams (2009). In a non-random, convenience sample nine out of eleven women had children and eight of these believed that having children negatively affected a woman’s IT career. The authors found that child bearing disrupted the ability of women to work the way that men did. However, female respondents did not necessarily see gender as an issue in the workplace. These respondents noted that IT working mothers had to be dedicated and hard-working to maintain current skills and knowledge to ensure their employability. The experiences of these women in IT suggested that women were likely to be treated differently by their colleagues and seen as less capable after having had children. Again, this finding suggests that IT work can be intense and pervasive. To succeed in an IT career, workers most likely need limited responsibilities in
their non-work domains. It further supports a study of intense work that is examined in terms of the work/life interaction for IT individuals across the life course.

Both working IT mothers and child-less, younger female IT workers have views on the demands of managing child care and work. Building on Crump and Logan’s (2000) study, research showed that some younger women saw the decision to have a child as a ‘problem’ and expressed some concern as to how they would cope with managing the responsibilities of their job and being a mother (Crump, Logan & McIlroy 2007). While Crump, Logan & McIlroy (2007) acknowledged that the child-lessness of women in their study could be a reflection of New Zealand women delaying child birth until their 30’s, they further suggested that the delayed child birth of their sample could also be attributed to the likelihood of long hours and lack of flexibility in the industry. Only 19 had children while 45 were childless. These characteristics of the IT workforce parallel findings in Shih’s (2004) study where high-tech workers sequenced their life events. For example, workers were found to focus on their career and then seek out a partner, rather than simultaneously pursuing these events. The examination of intense work in terms of the work/life interaction will shed light on the management of multiple life course events for individuals working in the IT sector.

While the literature on IT work and family conflict is heavily focused on IT working mothers, there is limited research on the experience of IT fathers. Cooper (2000) argued that the internalisation of the Silicon Valley member role was likely to spill over into the non-work role and influence how fathers think about and behave in their family lives. This created a conundrum for fathers who desired to be able to perform like they did at work, when at home with the family. These types of fathers were termed, ‘Superdads’. Superdads were frequently overwhelmed and exhausted from lack of sleep and personal time due to the conflict of competing demands. About seven fathers in Cooper’s study were Superdads: those who “lead lives much bigger than a typical Silicon Valley day can hold” (Cooper 2000, p. 395). At the polar end of Superdads were ‘traditionals’ who held views of gendered patterns of labour leaving domestic responsibilities to their wives which allowed them to invest in their work and income. As expected, they were less stressed than Superdads because they did not have the same commitment to their work and non-work domains. Transitionals fell between
Traditionals and Superdads; the majority of fathers in Cooper’s study fitted within this category. They wanted to be involved in their family lives and take up some responsibility for family work, but not all family work. Hence, they did not feel the conflict between roles as Superdads do.

The study was not explicitly about work intensity but nonetheless highlighted the demands of IT work and its interaction with fathers’ family responsibilities. Like the previous studies about IT mothers, the sample of this study is too small to make broader generalisations to the population. Furthermore, the construction of this form of masculinity was based on characteristics of Silicon Valley, which again is not a typical description of all IT work environments and cultures. However, it provides a framework for viewing masculinity and its role in the processes of labour control and the family.

Work Intensity and the Ageing IT Worker

It is clear from the literature that more attention has been given to the dynamics between IT work, its interface with the non-work domain, and gender. Yet, what is the experience of intense work for younger and older IT individuals?

In terms of age, Rasmussen and Johansen (2005) found that young, inexperienced web-designers willingly worked hard and long hours of work when given the freedom to plan their working time according to their needs and schedules. Although in a position of vulnerability, the autonomy designers were offered by management was perceived as a sign of being ‘expert’ which led designers to behave as such. Designers were given an opportunity to gain experience working on professional projects that were challenging and exciting. The culmination of being treated as an expert and gaining sought after career experiences meant that the designers were motivated to take responsibility for results and work hard and for long hours to deliver. A lack of power and resources saw many of these workers unable to counter the demands for long, working hours. An assumption that emerges from these
findings exists in relation to young workers starting out in their careers and whether there is a trend for them to experience intense work in relation to building their career base.

At the other end of the spectrum, data from the WANE Australian research site found that the adaptability of learning and applying new skills further exacerbated the conflict with older workers' family responsibilities, highlighting the challenges of work intensity for older workers in SMEs (Brooke 2009). Grappling with the demands to maintain marketability and caring of family members with age was likely to have a negative impact on one’s IT career trajectory into older age (Brooke 2009).

Sentiments of increased difficulty combining work intensity and family roles for older workers were initially raised in the Third European Working Conditions Survey. Workers from all age groups reported that “work intensity increases the feeling that it will be impossible to do one's present job at the age of 60” (Boisard et al. 2003, p.69). Reports from workers of not being able to work at 60 years of age the way that they do now suggests a sense of unsustainable working capacity. These are not isolated findings as work from Hewlett and Luce (2006) suggested that “extreme workers” were not likely to remain in current roles for more than two years. The ramifications for IT work seem particularly perplexing especially in consideration of the recent literature and its focus on rapid technological change and learning challenges for older workers.

Shih (2004) found that high-tech workers were highly likely to leave the field in their forties either for retirement or for a less demanding job. There was evidence that high-tech workers were likely to sequence their life events rather than simultaneously pursue work and personal life events, such as coupling or parenting. This 'reconfiguration of one's life course' was perceived to be a strategy for not compromising individuals' priority of work. Shih (2004, p.242) indicated a shift in the concept of career structure, with IT career trajectories “condensing into fewer years but at the same time agreeing to its intensification.” In other words, intensification of work was contributing to shorter career structures. In a similar vein, Rasmussen and Johansen (2005) found web-based workers working shorter careers. One
worker in his mid-thirties loved the excitement of his work but did not think it healthy to continue working at the pace that he was currently working:

I have said to myself that I will work like this for 10 more years, till I am 35. That is, in the tempo that I keep today. Any longer than that I can’t imagine that I would manage. Then my body would be so worn out that it wouldn’t last much longer if I didn’t stop in time. There are older people working in the IT-business, but they don’t work in the tempo that we do (Rasmussen & Johansen 2005, p.115).

Brooke (2009) using data from WANE (Australia), found that extended careers in IT were limited by age graded perceptions of IT roles, discontinuous availability of work which was further compounded by work intensity. Using data derived from qualitative interviews with 71 employees, Brooke (2009) examined how employment at small to medium sized IT enterprises influenced workers’ expectations about an extended or prolonged career, or potential early exit in the field.

Projections of extending careers in IT beyond the age of fifty were not common with most interviewees believing that their careers would be short. Small firms were constrained by the rapid pace of IT developments on a global scale which impacted on firm sustainability and the likelihood of providing employment for workers across their careers. Age graded norms of IT professions were well articulated with younger workers commonly holding IT technical based roles and older workers embedded in broader management positions. Technical IT specialist professions were likely to be short lived leading to “truncated technical careers” (Brooke 2009, p.245) with a shift to broader management roles for those that could successfully manage the transition, which could be marked by unpredictable and discontinuous availability of work.

Further research, particularly case study research of individuals, can provide deep insight into the experience of intense work and shed light on the work trajectory for individuals who
experience intense work. Asking key questions can fill some of the gaps that exist in the literature, such as:

- What is it about individual’s intense work experiences that manifest feelings of incapacity to work in later life? and
- How does intense work for individuals who work in the IT sector impact on their non-work lives?

Summary

There are a number of layers that have led to the emergence of this study's research area. The work intensity literature has predominantly been researched through quantitative studies using large-scale survey instruments and is arguably understood as a series of measures. Beyond measurements of work intensity definitions are problematic. Definitions of work intensity are somewhat elusive and, where present, they tend to be vague or ambiguous in their meaning. They can be ‘circular’ in their meaning, for example, “the intensity of work during that time that they are working” (Burchell 2002, p.72).

Another fundamental layer that emerged from reviewing the literature was the paucity of Australian research on the formal concept of work intensity. There were few national data sets (e.g. AWIRS, Workplace Bargaining Survey 1994). Furthermore, what do exist, were inconsistent and, therefore, problematic for gauging or mapping trends of work intensity experiences. Of the sectoral or case study research that did exist at a smaller scale, many were limited in their scope because of the focus on labour utilisation processes – a reflection of the Australian research landscape at the time of the research. This illustrates the need for a study that reflects work in the current Australian landscape.

There is a necessity to move beyond measures or quantifiable categories of work intensity to examine the concept in greater depth. This study aims to build on the existing literature using a qualitative lens to yield an alternative perspective on the phenomenon of work intensity. Hence, this dissertation will focus on the experience of intense work - a notion that
progressively develops throughout this dissertation and is used in reference to my data and findings, reflecting the inductive, case study methodology of this study.

Much of the early work intensity literature did not recognise that the career or work trajectory is interdependent with other trajectories, such as health, family, and so on. Given that the work boundary of many IT workers is described as ‘blurred’ (Rasmussen & Johansen 2005; Shih 2004; Shuey & Spiegel 2010) or ‘fluid’ (Baldry et al. 2007; Hyman et al. 2003; Hyman, Scholarios & Baldry 2005), people’s constructions of intense work are likely to extend beyond the domain of work (intensity is not just confined to the domain of work). It is important, therefore, that the phenomenon of work intensity is examined in a broader context that accommodates for the boundaries between work and non-work domains.

Furthermore, this led me to think of the doctoral study from another angle; “workers perceptions are indicative ... and need to be placed in the context of more qualitative information on the shop-floor regime” (Edwards & Whitston 1991, p.595). If I want to understand the phenomenon of work intensity I should explore it in the field based on individuals’ experiences rather than my preconceived ideas of what it might be. As suggested by Guest (1990, p.306), “If we want to know whether workers are working hard, we should ask them.” From reviewing the literature, the following research questions have been established for this doctoral study.

- What is the experience of intense work for individuals working in the Australian IT sector?
- How does intense work impact on the lives of individuals who work in IT?
  - What is the relationship between ageing and intense work for individuals?
The methodological framework used in this study will be justified in the next chapter. The strategies and data collection methods utilised in this research are discussed followed by quality and ethics aspects of the study.
Chapter 3 - Research Methodology

Introduction
This chapter presents the methodological framework that underpins this doctoral study. The research paradigm that guides the study is justified. An outline of the strategies and data collection methods that were utilised in the study is presented. The methods of analysis are discussed and are followed by the justification of the study's research quality and ethics.

Research Paradigm
The research paradigm of the researcher is critical in order to justify the theoretical underpinning of the study. It provides the reader with a lens for viewing the study through the eyes of the researcher.

It represents a worldview that defines, for its holder, the nature of the ‘world,’ the individual’s place in it, and the range of possible relationships to that world and its parts, as, for example, cosmologies and theologies do (Guba & Lincoln 1994, p.107).

Paradigms are made up of three components: the fundamental questions, assumptions or axioms of ontology, epistemology and methodology (Guba & Lincoln 1994, p.105). In essence these components relate to: the study of being and the nature of existence, the structure of reality (ontology); the nature of human knowledge and how we know what we know (epistemology); and how the researcher conducts their inquiry (methodology) (Crotty 1998; Guba & Lincoln 1994).

The methodological literature reveals a multitude of classifications of qualitative forms of inquiry. There is a general understanding that paradigms of inquiry other than positivism are “still in formative stages; no final agreements have been reached even among their proponents about their definitions, meanings, or implications” (Guba & Lincoln 1994, p.109).
According to Patton (2002, p.131), there is “no consensus about how to classify the varieties of research.” Miles and Huberman (1994, p.5) concluded that

... as comprehensive and clarifying as these catalogs and taxonomies may be, they turn out to be basically incommensurate, both in the way the different qualitative strands are defined and in the criteria used to distinguish them. The mind boggles in trying to get from one to another.

Constructivism or the constructivist theoretical approach is an appropriate underpinning for this doctoral study. While there are variations within this paradigm, the essence of constructivism is to "share the goal of understanding the complex world of lived experience from the point of view of those that live it" (Schwandt 1998, p.221). Given this complexity it is important to note that this study refers to Guba and Lincoln’s constructivist paradigm rather than constructionism more broadly (e.g. Crotty 1998).

Early work by Guba and Lincoln critiqued four major paradigms guiding qualitative inquiry. However, considerable changes have taken place in the landscape of social scientific inquiry since publication of Guba and Lincoln’s work in 1994. A fifth paradigm, participatory/co-operative, was more recently proposed by Heron and Reason (1997) and adapted to Guba and Lincoln’s paradigmatic model. A table of basic assumptions of the five paradigms is represented in Table 1.
Table 1: Basic Beliefs of Alternative Inquiry Paradigms (adapted from Guba & Lincoln 2005, p.195)

<table>
<thead>
<tr>
<th>Ontology</th>
<th>Epistemology</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positivism</strong></td>
<td>Naive realism - &quot;real&quot; reality but apprehensible</td>
<td>Dualist/objectivist; findings true</td>
</tr>
<tr>
<td><strong>Postpositivism</strong></td>
<td>Critical realism - &quot;real&quot; reality but only imperfectly and probabilistically apprehensible</td>
<td>Modified dualist/objectivist; critical tradition/community; findings probably true</td>
</tr>
<tr>
<td><strong>Critical Theory</strong></td>
<td>Historical realism - virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallised over time</td>
<td>Transactional/subjectivist; value-mediated findings</td>
</tr>
<tr>
<td><strong>Constructivism</strong></td>
<td>Relativism - local and specific co-constructed realities</td>
<td>Transactional/subjectivist; co-created findings</td>
</tr>
<tr>
<td><strong>Participatory</strong></td>
<td>Participative reality - subjective-objective reality, co-created by mind and given cosmos</td>
<td>Critical subjectivity in participatory transaction with cosmos; extended epistemology of experiential, propositional, and practical knowing; co-created findings</td>
</tr>
</tbody>
</table>

Of the paradigms illustrated in Table 1, only constructivism is discussed in this thesis as it is the paradigm that underpins this study. The purpose of a constructivist inquiry is
understanding and reconstruction of the constructions that people (including the inquirer) initially hold, aiming toward consensus but still open to new interpretations as information and sophistication improve ... over time, everyone formulates more informed and sophisticated constructions and becomes more aware of the content and meaning of competing constructions (Guba & Lincoln 1994, p.113).

The constructivist paradigm as outlined by Guba and Lincoln assumes a relativist ontology which acknowledges multiple constructions of reality. Constructions can be shared amongst a group or can be individually held. However, the form and content of the construction is dependent on the group or the individual who possesses it (Guba & Lincoln 1994).

“Constructions are not more or less 'true', in any absolute sense, but simply more or less informed and/or sophisticated 'realities'” (Guba & Lincoln 1994, p.111).

This study sought to interpret the various meanings that individuals who work in the IT sector attach to their experiences of intense work and how it impacts on their lives. Hence, this paradigm is conducive to capturing the multiple constructions of intense work. The study is not concerned with quantification but rather with understanding and interpreting the phenomenon from the viewpoints of those experiencing it. It is based on the belief that:

... research takes everyday experience and ordinary life as its subject matter and asks how meaning is constructed and social interaction negotiated in social practices. Human action is inseparable from meaning and experiences are classified and ordered through interpretive frames, through preunderstandings mediated by 'tradition'. The task then becomes to work with, and make sense of, the world, through the frames and preunderstandings of the researched, rather than the categories of the social sciences (Scott & Usher 2004, p.25).

The phenomenon of work intensity is examined through the interpretation of the participant’s recollections of their individual experiences of intense work and the sense that I make of the participants’ experiences.
Guba and Lincoln's constructivist view of epistemology assumes that the transactions between the researcher and the researched are 'interactively linked' so that the 'findings' are co-constructed (Crotty 1998). Consequently the distinction between ontology and epistemology is blurred. In this study, I interpreted findings from the data derived from observational notes, face-to-face interviews and personal journal entries. The interpretation of these research methods reflects the transactional process between me as the researcher and the study's participants. As noted by Crotty (1998, p.45) “no object can be adequately described in isolation from the conscious being experiencing it, nor can any experience be adequately described in isolation from its object”.

A constructivist methodology adopts 'hermeneutical' techniques to interpret the constructions that emerge through a dialectical interchange between the researcher and the researched. It is intended that the 'emerging' constructions become more informed and sophisticated than previously held constructions and provide a platform for further inquiry (Green 2002; Guba & Lincoln 1994). The longitudinal nature of this study, in which two individual interviews with each participant were conducted over an extended period of time, provides an opportunity to construct a deep and critical description of the intense work experience. The use of case study research requires the researcher to clarify descriptions and provide sophisticated interpretations “providing readers with good raw material for their own generalising” (Stake 1995, p.102).

**The Life Course Perspective**

Underpinning the research design is a life course perspective that is used to explore the phenomenon of intense work for individuals with different life course experiences. Life course is distinguished as a concept and also a theoretical perspective rather than a theory (Marshall & Mueller 2002). It is often seen as a framework to understand the relationships between people’s lives and social change (Elder 1994; Giele & Elder 1998; Heinz 2001; Marshall & Mueller 2003; McMullin & Marshall 2010a) and is well suited for understanding the complexity and tensions individuals experience combining work with their personal lives in a dynamic, contemporary labour market.
The life course perspective is multi-disciplinary in its origins and strongly rooted in the behavioural and social sciences, in particular developmental psychology and sociology. Emerging from the life course literature are two major paradigms: the Bremen and North American. This doctoral study pursues the latter paradigm rather than the European model as it better reflects the national context of Australia, where this thesis is situated.

At the crux of the North American life course paradigm is the concept of trajectory and how key life events and transitions affect an individual’s trajectory. Work or career is one trajectory of life; others include family, education and health (Elder 1985). According to Elder (1998, p.955), a prominent theorist of the life course:

Trajectories provide a long view by linking social or psychological states over a substantial part of the life span. Transitions depict a short view, a change in state or stages, such as when children leave home or a mood change from depressed feelings to happiness. Since transitions are always elements of trajectories, a substantial change in direction during a transition may represent a turning point as well.

Over the last four decades the works of Riley, Neugarten and Elder have been attributed with what has been described as the formalisation of the North American life course perspective (Marshall & Mueller 2002). While the works of each theorist has been paramount to the development of a North American paradigm of the life course, they have not been discussed in detail within this thesis for fear of duplication. Their work has been well captured by Marshall (2006) and Marshall and Mueller (2002; 2003). The works of these theorists have, however, culminated in the form of six general orienting principles identified below in Table 2.
Table 2: Six Principles of the Life Course

<table>
<thead>
<tr>
<th>Six Principles of the Life Course</th>
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<tbody>
<tr>
<td>1. Ageing is biological, psychological and social;</td>
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<tr>
<td>2. Human development and ageing are life-long processes;</td>
</tr>
<tr>
<td>3. Historical time and place: The life course of individuals and cohorts is embedded in and shaped by the historical times and places they experience over their lifetime;</td>
</tr>
<tr>
<td>4. Timing: The antecedents and consequences of life transitions and events vary according to their timing in a person’s life;</td>
</tr>
<tr>
<td>5. Linked lives: Lives are lived interdependently and social-historical influences are expressed through this network of relationships; and</td>
</tr>
<tr>
<td>6. Human agency: Individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstances. When many persons in the same cohort behave in concert, they can produce social change.</td>
</tr>
</tbody>
</table>


The construction of the intense work experience for IT individuals considers these six principles and is presented throughout the following chapters of this dissertation. In summary, the life course perspective is holistic and looks at lives in a broader context, allowing for individual agency, but understanding lives as part of a historical time and place, a series of social networks, embedded in social institutions that shape life experiences” (Marshall 2006, p.11).

Building an understanding of the individual’s experience of intense work in the context of the life course provides a fruitful framework for examining intense work and its impact on the trajectory of work or career, and the interaction between trajectories for that matter, such as family or education.
Furthermore, a constructivist inquiry is conducive to the life course perspective as it is idiographic, that is, strongly located in time and place. As seen in the table above, temporality refers to historical time and the timing of an event. Place, often noted as context, refers to the “social and historical context in which a life is lived” (Marshall & Mueller 2002, p.10). The life course perspective provides an alternative perspective for viewing intense work which strongly reflects the social realities of the current work environment and contributes to the paucity of literature within this area.

The Research Design

This section looks at the framework used to inform the design of the inquiry. First, it describes the research questions of the doctoral study before turning to the inductive, emergent approach that underpins the design. The next section details the sampling strategies employed and how access was achieved and maintained throughout the course of the inquiry. The coding of data and the case study approach as a research strategy are then presented.

Research Questions

Chapters One and Two positioned the work intensity literature as predominantly emerging from quantitative studies using large-scale survey instruments and largely understood as a series of measures: the pace or speed of work, the need to meet tight deadlines and how hard or how much effort workers put into their work. This study builds on the existing literature using a qualitative lens to provide an alternative perspective on the phenomenon of work intensity. It takes an inductive approach to examine the concept of work intensity (referred to in this thesis as intense work), in order to explore and understand the experience of intense work and its impact on individuals who work in IT at different stages of the life course. Individual’s ‘stories’ are examined and a key focus is on the researcher’s interpretation of intense work, using a methodology which is not evident within the current body of literature. This study also contributes a focus on ageing and its relationship with the experience of intense work.
This doctoral study addresses the following research questions:

- What is the experience of intense work for people working in the Australian IT sector?
- How does intense work impact on the lives of individuals who work in IT?
  - What is the relationship between ageing and intense work for individuals who work in IT?

In order to address these research questions, the following key themes/questions were raised for discussion in the interviews:

- What is intense work?
- The impact of work on individuals’ lives;
- The interaction between work and non-work within individual’s lives across different stages of the life course;
- The interaction between life course and intense work, in particular, age.

**Inductive Methods within an Emergent Research Design**

This doctoral study adopts an inductive, emergent research design which seeks to build a theory from the bottom up. Consequently, the findings of inductive studies are often described as being based on the data which may lead to theory development (Saunders, Lewis & Thornhill 2000). Bogdan and Biklen (2003, p.6) capture this metaphorically in the following quote: “You are not putting together a puzzle whose picture you already know. You are constructing a picture that takes shape as you collect and examine the parts”.

Upon the commencement of my doctoral candidature, I began conducting interviews as an employed researcher of the WANE project. The notion of pervasive work was a clear theme that emerged from the WANE research participants’ stories about their working lives.
Participants’ responses revealed different forms of intense work that affected how work was performed in the industry and subsequently how it impacted on their lives.

A preliminary review of the intense work literature was conducted simultaneously with the interviews. At this time I started to explore some of the questions that I had mulled over regarding the phenomenon of work intensity and inserted an ‘evolving’ subset of interview questions into the WANE face-to-face interview schedule. These semi-structured questions were used to explore the WANE interviewee’s experience of intense work where “the suitability of using an emergent, grounded approach is relevant for a particular research purpose, at least in the initial stages of such a research project” (Saunders, Lewis & Thornhill 2000, p.392). The concurrent process of analysis also took place during the data collection phases. Notes were taken at the completion of each interview and when the interviews were fully transcribed, I was able to look at them in more detail and identify themes that were emerging from the data being collected. At the conclusion of the WANE interviews, I conducted a preliminary analysis with the intent of establishing research questions for the doctoral study.

**Sampling**

This next section on sampling includes details about the sample and looks at the sampling strategies employed for the study: critical case and maximum variation sampling. Each is discussed in turn.

**The Sample**

The sample of this doctoral study was predetermined and confined, in some aspects, by the sampling strategies employed for the Australian WANE project (refer to Appendix 1 for information about the recruitment and selection of IT firms and the sampling of IT workers for the WANE study). The intent was to select a ‘purposeful’ sample of IT individuals from the 11 firms that participated in the Australian WANE project.
At the time the study was conducted, the 2001 census data indicated that the Australian IT profession reflected a young profile with about 77% of people working in IT occupations* aged 45 and under (n = 196,213). Further analysis indicated that 35% of the workforce were aged 25 to 34 years (n=89,028) followed by 30% who were aged 35 to 44 years (n = 75,347). Older IT workers were less common, with 18% of the profession aged between 45 and 54 years (n= 44,530) and then numbers descended steeply at 55 years with only 5% of IT workers aged 55 to 64 years (n=11,742) and near negligible representation (1%) aged over 65 years (n= 1,329).

The WANE study sample was comprised of IT workers aged 21 to 62 years. The study sample only slightly over-represented the older end of the spectrum with approximately 28% of the WANE sample aged 45 years and over compared to the National figure of 23%. Similarly, women formed about 40% of the study sample which over-represented female IT workers compared with 22% in the Australian IT workforce based on the selected IT occupations. The sample for this doctoral study was derived from the overall Australian WANE sample.

Within qualitative inquiry ‘purposeful’ (Patton 2002) or ‘purposive’ sampling, as termed by Lincoln and Guba (1985), focuses on “information-rich cases whose study will illuminate the questions under study” (Patton 2002, p.230). Also known as ‘theoretical’ sampling (Lincoln & Guba 1985; Miles & Huberman 1994) or ‘judgment’ sampling (Patton 2002) it “provides a clear criterion or rationale for the selection of participants ... that relates to the research questions” (Ezzy 2002, p.74).

1 There is no definitive view of what constitutes an IT occupation (Brooke et al. 2004). Given the cross country comparative nature of the WANE project, Australian IT occupations were selected in concordance with IT occupations from the Canadian National Occupational Classifications. These IT occupations were selected from the Australian Standard Classification of Occupations’ two major classifications of IT workers: Computer Professionals and Information Managers (Brooke et al. 2004).
Critical Case and Maximum Variation Sampling

There were a number of purposes that governed the adoption of a sampling strategy for this dissertation. Given that the study was embedded in the WANE project I was initially constrained by the WANE Australia project as I had to draw my sample from the broader project’s sample. Furthermore, the study was doctoral research, hence, there was a narrow timeframe and limited resources, such as financial funds that bounded the study’s sample. These limitations led to a critical case sampling method which was efficient for making a strategic selection of participants that “yielded the most information and the greatest impact on the development of knowledge” (Patton 2002, p.236). Furthermore, I was mindful of the experiences that I had shared with some of the WANE interviewees and those with whom I had established a rapport. These particular participants provided full, rich accounts about their experiences of intense work. Critical cases are often quite significant to the area under study and often can articulate or illustrate a point quite ‘dramatically’ (Patton 2002). With others, their stories generated great curiosity in me, and a yearning to understand more about their experiences.

With intent to focus on the experiences of intense work for individuals and how these experiences impacted on their lives, I also required a sampling strategy that maximised variation among research participants. I wanted to explore a broad range of workers’ experiences of intense work across the life course. Maximum variation sampling fitted the purpose of this study as it provided a diverse sample yielding high quality, detailed descriptions of each case, which are useful for documenting uniqueness, and important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity (Patton 1990, p.172).

In other words, this strategy enabled me to understand the similarities of workers’ experiences of intense work and work/life (from the perspective of work) and also the experiences that were unique to each case.
According to Patton (2002, p.235), the variation of the sample is maximised by identifying the most diverse characteristics among the individual cases prior to conducting the data collection. Acknowledging the limited pool of participants I had access to from the WANE sample, I intended to target the following variations:

- **Age** – The phenomenon of workforce ageing was a critical area of interest to the study. Targeting age enabled examination of individuals’ experiences of different ages. Given the age demographics of the IT labour force, the WANE project sample was skewed towards workers in their thirties; approximately 42% of interviewees were aged 21 to 30 years and a further 30% of interviewees were 31 to 40 years.

- **Gender** – I wanted to interpret the experiences for both males and females. However, the young, male profile of the Australian IT labour force would make it difficult to find equal numbers of men and women. Approximately 40% of the WANE project sample was female compared to 22% of females in the wider Australian IT workforce (Brooke et al. 2004).

While targeting specific attributes, the sample was not “wholly pre-specifed” (Miles & Huberman 1994, p.27) prior to data collection. The list of characteristics above was not fixed and characteristics were expanded as the research proceeded. This type of sampling reflects the ‘theory driven’ nature of qualitative sampling. This is further captured by Glaser and Strauss (1967, p.48):

The criteria of theoretical sampling are designed to be applied in the on-going joint collection and analysis of data associated with the generation of theory. Therefore, the criteria are continually tailored to fit the data and are applied judiciously at the right point and moment in the analysis. The analyst can continually adjust his control of data collection to ensure the data’s relevance to the impersonal criteria of his emerging theory.
Concurrent analysis of data at the time of interviewing revealed additional characteristics of variation that were of interest to target when looking at life course. These included variations of job position, family responsibilities and stage of career, for example.

- **Job position** – The sample comprised people from a variety of occupations within the IT industry. Work in the IT industry is highly diverse and it was difficult to locate a sample of participants who were working within the same or very similar job positions. This was particularly difficult working with smaller sized IT companies, where the work is highly varied and individuals can occupy very unique roles.

- **Family status** – I wanted to include individuals with various family structures on the assumption that family roles are likely to make a difference to the individual’s experience of intense work. The sample included individuals with and without partners, those with young children, older children and those with no children.

- **Stage of career** – I felt that it was significant to capture the experiences of individuals at different stages of their careers as they were likely to differ according to how long workers had been in the industry. The sample ranged from workers who were new to work in IT to those who were more experienced. It also included people who were thinking about exiting the IT field for retirement or to pursue other interests.

Whilst my sample targeted specific forms of variation, there were also criteria that were common to all the participants. Participants were employed:

- **Within the IT sector of three firms, initially** (the cases in this thesis were derived from two firms). All individuals had developed personal knowledge and experiences in the same industry sector. The decision to limit the sampling to two firms was an effort to contain the scope of the study. Employing a case study methodology requires “detailed examination” (Bogdan & Biklen 2003, p.54) and containing the study at two firms was seen to not detract from this purpose. There were two individuals who left their employment at the time of the first interview and they were interviewed a second time at the place of their new employment.
- At small sized companies, initially. Both firms were considered small with between 10 and 20 employees. However, one company was involved in a ‘merger’ in the middle of the study and expanded significantly to over 100 employees.
- In the same major city within Australia.

There were constraints that I encountered by using a maximum variation sampling strategy. With the purpose of sampling to maximise information, a sample size is not typically established in qualitative inquiry. As noted by Patton (1990, p.185),

> the validity, the meaningfulness, and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observational/analytical capabilities of the researcher than with sample size.

Ideally, sampling ceases when no new information is forthcoming (Lincoln & Guba 1985, p.202). However, given that the study was doctoral research, it was largely constrained by time and budget. This meant that I ceased collecting data after sampling for a unique mix of participants with a range of “variations and patterns” (Ezzy 2002, p.74) of intense work. Another limitation was that the age and gender demographics of the IT workforce were skewed towards a young, male workforce which presented challenges in maintaining the anonymity of females and older individuals.

**Achieving and Maintaining Access**

For the WANE project, I interviewed close to 100 people from across eight of the eleven firms. For my doctoral study, I narrowed the focus and devised a sampling strategy that resulted in a list of prospective participants whom I invited to a second interview from three of the WANE project’s firms. The managers/owners of these three firms from which I intended to locate my study were contacted and were asked if they would object to me re-contacting some of their people who participated in the WANE project for an additional interview. I was not seeking the consent of the managers/owners for their people to be interviewed but viewed this contact to be in the spirit of transparency.
It was at this point that managers/owners made me aware of the people who had left the firm since the fieldwork stage of the WANE project. Two employers volunteered to contact their staff who had left and asked if their contact details could be forwarded to me. I had the mobile phone numbers of the people from one company and proceeded to contact them directly as agreed to at the first interview for the WANE project.

From here, correspondence with prospective participants via email was appropriate for contacting the sample. Some participants worked away from the office at client sites and email was a more efficient, less obtrusive or confronting means of making contact. The email contact details of interviewees were collected during the fieldwork phase of the WANE project.

An expression of interest letter was emailed to a total of 24 prospective interviewees from the three firms – these included an owner or managing director from each firm (the expression of interest letter is attached as Appendix 2). A set sample size was not established prior to conducting interviews as the focus was on acquiring information rich cases (Patton 2002). The letter informed recipients about my doctoral research and the time requirement anticipated from their involvement with the study. Recipients were invited to contact me for more information about the study or to schedule a meeting time. A reminder email was sent two weeks later to recipients who had not responded. People who did not respond to these two emails were not pursued any further.

Of the 24 individuals contacted, 18 participants were re-interviewed from 3 companies. Three of the twenty four targeted recipients had moved on from their companies and did not consent for personal details to be passed on to me. Two recipients did not respond to my emails at all. One recipient emailed me for more information about the study and did not see the doctoral study as being independent and any different to WANE and, therefore, felt unable to provide any further information. Of the 18 individuals that were re-interviewed, 7 participants from two companies were then written as case studies for this study. Data from the initial WANE interviews and some of the remaining 11 interviews have been used to
compile the IT company profiles, the case studies, and the overall analysis of this doctoral study.

Of the 24 targeted recipients, 3 of them were contacted directly via mobile phone as they were no longer accessible via email. Interviews were negotiated either directly with prospective participants via email correspondence or mobile phone. Interview times were arranged individually at the availability of the participant. Care was taken so that the request for additional interviews did not impinge on participants’ work obligations.

**Research Methods**

Qualitative methods, including observational notes of the participant’s workplaces, individual face to face interviews, archival data and a journal were used in this doctoral study. Each is discussed below.

**Observational Field Notes**

The field notes recorded for the study consisted of workplace observations and interview observations. The former included descriptions and reflections about the workplaces in which the interviewees worked. With the latter, notes were taken about the conduct of the interview and were recorded during and after the interview. Field notes capture what the researcher “hears, sees, experiences, and thinks in the course of collecting and reflecting on the data” (Bogdan & Biklen 2003, p.111). Workplace and interview observations are discussed in turn.

**Workplace Observations**

It was deemed appropriate to observe the workplaces of the participants to provide contextual information about their work environments. These observations were highly descriptive and included data about the design and atmosphere of the workplace, the interactions and conversations among people in the workplace, and observations about the
way that people worked. For example, the following notes were made by me about Company B’s office plan:

A digital access code was required for entry; visitors were met by a receptionist. The office was on the eighth floor with floor to ceiling glass windows that offered superb views of the city. It was a salubrious open plan office designed specifically for the firm by a consulted architect. The view of the managing director was that the office space promoted a variety of places for work to be conducted. Work stations were located against the windows and then across the centre of the space. The main meeting room resembled a board room, was sound proofed and adorned a print of a well-known Australian artist. At the corner of one of the meeting rooms was the ‘café’, a large sized kitchen with stainless steel appliances including dishwasher and fridge. The ‘café’ had tables and chairs for about twenty people and provided a different view of the city. A large bookshelf on one side homed reading materials including IT journals, contemporary essays on global and local issues, for example.

Workplace observations were conducted upon each visit to a firm when interviewing participants. As a researcher employed on the WANE project, I was fortunate to receive ‘tours’ of each firm prior to the commencement of this doctoral research.

A template was designed to facilitate observational note taking (refer to Appendix 3 for a copy of this template). This proved particularly useful for prompting and identifying points for observation and ensuring some form of consistency across organisational workplaces. Observations were noted at the workplace and soon after leaving the workplace sometimes upon returning to my office or in transit.
Interview Observations

Notes were also taken during the interviews and upon their completion. The notes taken during the interview recorded points of interest like participants’ definitions of key terms, such as Laurence’s definition of intense work: “doing the most work in the shortest space of time.” Unique details were also noted, such as instances where contradictory data was reported from an interviewee or times where I had difficulty sequencing parts of the participant’s stories. Given that the interviews were audio recorded, these notes were not verbatim. Interviewees’ responses were quickly scribbled down and attempts were made to explore areas of interest with probes and further lines of questioning. At times strong themes would emerge from the data creating the ‘aha’ experience in which case they were preciously noted. I would ruminate over these themes during the course of the interview and, having tried to evoke fruitful responses from the interviewee, I would ‘ear mark’ them as areas for reflection after the interview. These themes and areas of interest would most often feed into the interview schedule to explore with future participants. On other occasions I would mull over the themes and draw patterns among them. Sometimes I sketched diagrammatical ‘trees’ as possible indicators of the concurrent practices of analysis during data collection.

While brief notes were taken during the interviews, much note taking took place within hours of completing the interview. Sufficient time was allocated between interviews to allow for data clarification, elaboration and evaluation. This also enabled adequate time for reflection and the writing of detailed summaries of each interview. These notes were described as detailed summary sheets and were largely adapted and modified from Patton’s notes on ‘immediate post-interview review’ (Patton 2002). (Refer to Appendix 4 for a detailed summary sheet example). These summaries recorded the following details about the setting and observations about the interview:

Where did the interview occur?

- What were the conditions of the interview (including the context in which the interview took place)
- How did the interviewee react to questions?
• How did I ask questions?
• What was the rapport with the interviewee?

The following excerpt, from the second interview with Charles, provides some contextual information about the timing of the interview:

One thing not to disregard is that I caught Charles at a fairly stressful time. Apparently, the Friday before he had his first stress day. I ask myself why and how he had time to participate in the study but my sense is that he needed some time out. At the beginning of the interview he told me that he had to be out by 11am. The alarm went off at 11am but he kept on talking for another 20 minutes. At the end of the interview he walked out the door and jokingly said that the interview was a ‘release’ for him. An email received by one of his colleague's (in relation to my study) said that Charles found the session therapeutic and that it cost less than going to a psychiatrist.

The detailed summary sheets provide an additional source of data. However, they rely heavily on recall and therefore, were used as supplementary data to the interview transcript.

Interviews
In its simplest form the interview is seen as a conversation with a purpose (Berg 2001) - with the purpose of “allowing us to enter into the other person’s perspective” (Patton 2002, p.341). In this section, I have described the interview approach, schedule, setting, limitations and duration.

Interview Approach
Interview approaches vary. Some sources suggest one of two structures – the formal and informal or the structured and unstructured (Berg 2001; Minichiello et al. 2008). Patton
(2002) proposes three basic approaches to the design of an open-ended interview: the informal conversational interview, the general interview guide approach and the standardised open-ended interview. A combination of the latter two approaches was ideal for my research purposes. The first approach, which is also known as unstructured interviewing, is generally part of observational fieldwork and is conducted in such a way that the interviewee may not be aware that the interview is taking place. The recursive model, as it is termed by Minichiello et al. (2008), is often criticised for its likelihood of going off on a tangent. In this study, participation was governed by rules around time and access with interviewees and employers alike. It did not afford the luxury of observing employees around the clock where "spontaneous generation of questions" (Patton 2002, p.342) could be fielded by the interviewee at whim.

The second approach, the general interview guide, resembles a checklist of themes/issues to raise or cover in the interview and is prepared prior to the interview taking place. This approach provides the flexibility to “build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversational style but with the focus on a particular subject that has been predetermined” (Patton 2002, p.343). Furthermore, it also helps with some level of consistency while still allowing for flexibility. This type of approach was invaluable for understanding and gaining insights into the participant’s experience of work and non-work life. Yet, there were areas where more structured questions were warranted. The concurrent processes of data collection and analysis of inductive studies led to new fields of questioning which fed into the interview schedule of the next interview. Also, having previously interviewed participants, the second interview enabled me to ask participants to re-visit or clarify content discussed in their first interview. A full standardised interview could not accommodate for the probing questions which was critical to my exploratory study. Furthermore, it would be a rigid, inflexible schedule of questions that could not accommodate and capture the nuances or differences that each interviewee brings to the study. A checklist of themes/issues for discussion and some key structured questions was optimal for balancing the depth and the breadth of participant’s stories (refer to Appendix 5 for a sample of the interview guide).
The Interview Schedule

Prior to conducting a second interview with participants, I trialed the themes/issues component of the interview schedule with a ‘pilot’ group. Janesick (2003, p.58) uses the term ‘stretching exercises’ rather than pilot, and sees it as an opportunity for the researcher to practice interview, observation, writing reflection, and artistic skills to refine their research instruments. I interviewed six people independent of the study. None of them had participated in the WANE project and only half of them were IT workers. Although I had recently conducted close to 100 largely standardised interviews with participants of the WANE project, trialing a component of the interview schedule enabled me to familiarise myself with this style of interviewing. I was able to experiment with the order of the themes/issues for discussion and think about appropriate language or phrases I would use when asking questions. More importantly I was able to determine whether these themes/issues were providing the kind of data that would answer (at least in part) my research questions. In addition, I needed to ensure that the interview schedule enabled the collection of data in the allocated time of about an hour. This practice did lead to the addition and removal of themes/issues from the second interview schedule which was a practice that flowed on throughout the interview process.

In addition to ‘piloting’ the interview schedule, I asked interviewees for their evaluations of the interview, including both their thoughts and feelings. I wanted to know where there was ambiguity, whether the questions adequately captured their purpose for use, whether the line of inquiry was too personal, and so on. The responses of the pilot-study participants were used not so much to influence the outcome of the interview schedule but more so for me to be aware of how individuals might interpret and respond to the questions. The piloting of the interview schedule also enabled me to analyse my role as an interviewer. From this activity I noted my reflections about the process and was conscious whether my method of inquiry was providing the rich information that I required for this study.
The Interview Setting

All of the interviews, except for two, were conducted at the interviewee’s workplace. Interviewing participants at a time and place convenient to them was intended to minimise any negative impact that could be associated with participating in the study. One interview was held at my office as the interviewee was working from home. Another interview took place at the interviewee’s home as she was on maternity leave. All interviews were audio recorded using an MP3 player and were transcribed verbatim in full. Transcription guidelines were developed to ensure that all interviews were transcribed identically, capturing some of the nuances of the interviewee. For example, the inclusion of pauses was noted as well as the incidence of laughter and interviewees grammatical expression. This is a process that also ensures the rigor or quality of the study by minimising the influence of the interviewer on the individual voice of the researched (Bowden & Green 2010a; Bowden & Green 2010b). A copy of the transcription guidelines is included as Appendix 6. Interview transcripts were then blinded which removed any identifiable data from the transcript and then ‘cleaned’ where the transcript was checked against the audio recording for accuracy.

Interview Limitations

In terms of overall limitations of the study the typical nature of highly, intense work was presumed to not be conducive to individuals’ participation in activities outside of work. It was expected, perhaps erroneously, that companies with ‘hard working’ cultures would not have agreed to be involved in the project because of the time commitment, and that, as a result, I would not have access to participants who had a hard working experience. However, this was not the case.

Interview Duration

It was negotiated with employers at the time of the first interviews for the WANE project that a condition of my access to the firm’s employees was for the second interviews to be conducted in the employee’s own time. For one firm this translated into interviewing participants in their lunch break which lasted one hour. At another firm I was given ‘free’ access to their people meaning that employees could negotiate any time to meet with me. At
the third firm, interviews were conducted after 5pm with most employees except the owner. A contract worker, an employee on maternity leave, and another interviewee who had left and established her own firm negotiated their interview times free from any conditions as they were not engaged with the employer. The interviews ranged from about 40 minutes to 1 hour and 35 minutes in duration.

Of particular interest was that most participants appeared to enjoy talking to me about their lives, including work. Some interviewees told me at the beginning of the interview that they only had an hour to talk or had set the alarms on the telephones to mark the end of the interview. On a number of occasions participants either continued to talk after I told them an hour had elapsed or their alarms sounded on their phones. I had received emails from interviewees telling me how much they enjoyed the experience of talking to someone about their working life. On another occasion one interviewee told me how much better he felt having talked to me and suggested that I “take this up as a full time job”. This was a startling comment as I had considered research to be part of my employment. After consideration, I assumed that the interviewee had implied that I could earn a handsome income by providing individuals with an opportunity to address key questions about their working lives. The participation in an interview enabled participants to articulate what was currently happening in their lives, which one interviewee deemed therapeutic. Some participants implied or commented that opportunities for reflection of their working lives were rarely practiced. These comments illustrate the advantages of doing case study work.

**Archival Data**

In addition to the reflective notes taken when in the field, archival data were collected for each organisation. These items were broad in scope from publicly available sources such as metropolitan newspapers and company websites, company specific newsletters or subscription emails, and annual reports. Where available, more confidential HR documents and policy related items were obtained from key informants in the organisation including employment agreements, induction material, salary continuance policies and technical tests used for recruitment.
Owners and directors were asked at the initial meeting if they could provide HR related documents or policies that could inform interpretations of the organisation and provide a context to their people's stories. Some owners/directors required some suggestions of HR documentation to understand what was required where others provided sources that they perceived met our needs. Where sources were not forthcoming, further suggestions were requested.

The majority of the archival data were collected during field visits or were received via email. Requests were asked directly of the owners/directors at interviews. Where data were not received in interviews, owners/directors were contacted via email or phone.

**Journal Writing**

A research journal was also kept as a means of “facilitating the interpretive process that is at the heart of qualitative research” (Ezzy 2002, p.71). Since the inception of my candidature I kept a journal which evidences the historical journey of my thesis. Initially the journal was used as a means for documenting thoughts and ideas emanating from the WANE project. Such a journal was kept with the intent of identifying a discrete area of research for my doctoral study. However, the journal quickly evolved and provided a tool for reflecting on the doctoral study as a whole. It contained my thoughts relevant to constructing the research proposal, potential themes for questioning at interviews, and links between theory and practice. The journal was invaluable for documenting problems that I foresaw with the study as well as voicing new ideas, and even suggestions for other projects, such as publications. It sometimes served as a log for the development of ‘to do’ lists and provided a timeline within the back cover, which was updated regularly.

In addition to the journal, a separate book provided a means for recording notes about the data. During data collection and analysis, I would explore patterns or themes that had emerged from the interview data which in time, started to resemble a code book. This was adapted from Strauss’ (1987, p.22) notion of understanding ‘theoretical memos’ – “a method
of keeping track of coding results and stimulating further coding, and also a major means for integrating the theory”.

**Coding**

This doctoral study collected data from a range of methods. As mentioned above, these included observational notes, in-depth interviews and journal notes. The interviews were transcribed verbatim and after cleaning and blinding, were entered into a qualitative data analysis software package, NVivo, with the other data. NVivo versions 2 and 7 were used. The software enabled effective storage and organisation of a very large volume of data.

A simple organisation system was developed to assist with the identification of data. The identity of participants was concealed. Anonymity and confidentiality were observed but participants could be matched up against their detailed summary sheets and other observational notes recorded prior to or during the interviews. Each participant was given a pseudonym which matched their corresponding interviews, detailed summary sheets and field notes together. Furthermore, interviews were numbered to identify whether they occurred in first or second sequence.

All documents were coded in NVivo2 and NVivo7 using general categories or ‘open codes’ (Ezzy 2005; Glaser 1978; Strauss & Corbin 1990). Strauss and Corbin (1990, p.62) describe open coding as “the part of analysis that pertains specifically to the naming and categorising of phenomena through close examination of data.” It is through the process of coding that one inevitably starts looking for emergent themes.

The process of coding was met with much frustration and a great deal of experimentation. Further, it was very time intensive. Ezzy (2002, p.90) notes, “the process is not linear or clear. Rather, it is often confusing, frustrating and somewhat chaotic.” While I initially started this process in NVivo, I quickly shifted to coding documents manually as coding via software
seemed to hinder the freedom of creative thinking associated with this practice. Furthermore, I found that the use of a computer limited my conceptual thinking and for me to effectively focus on categorising data I needed to be able to situate the data in context, which I could not do when limited to screens on the computer monitor. This meant that codes were noted in document margins using pencil and then recorded again in an exercise book as a means of keeping a log of the codes.

The log book of codes was examined frequently as there were literally hundreds of codes in the initial stages. After coding a few documents, I would re-visit the codebook and look at the “properties and dimensions” (Ezzy 2002; p.90) of a code. The following questions emerged: What duplication of codes occurred? Were there any relationships between these codes that would lead into axial and selective coding? (Strauss & Corbin 1990). Where should codes be amalgamated? This process was done often, moving between the code book and documents, even documents that had already been coded. Strauss and Corbin (1990, p.9) describe this process as constant comparison: “As an incident is noted, it should be compared against other incidents for similarities and differences”.

As mentioned earlier, the process of coding and identifying themes was challenging. Working manually with large volumes of data was complex and time consuming with the constant shifting between the code book and data documents. During this process I often found it helpful to remove myself from the coding exercise and review my notebook where I had made notes about the interview data. This notebook served as a record of my thinking about patterns of data that had emerged not just from the interviews but also from this process of analysis of all data methods and as a whole.

In order to capture the meaningful patterns, themes and nuances across the cases, I later developed a case study template. The template was designed to ensure that the data collected met the research questions of the study. It was also critical to collect the contextual information for each individual including their perceived outlook for their career trajectory and broader life course trajectories. It was an effective tool for considering the similarities
and differences across the cases and enabled me to retain the unique features of each case. It was this case study template that formed the base for the thematic analysis.

Case Study

The case study was used as a means of representing the data. With my intention to interpret peoples’ experiences of intense work in light of the work/life interface the case study would “provide a window of meaning on the lives of the researched, a means by which to examine multiple realities, and to provide a thick description” (Green 2002, p.12). Case studies have also been described as “the soul of the research” (Green 2002, p.12), a “snapshot of reality” or a “slice of life” (Guba & Lincoln 1981, p.371) and was deemed an appropriate ‘strategy’ or ‘approach’ to capture what it was to be studied (Marshall 1999; Stake 2000).

Case studies provide “an in-depth and holistic understanding of a form of social behaviour through examination of an instance, or a set of instances, of that form of behaviour” (Marshall 1999, p.380). They provide a holistic perspective with the view of understanding the case as “a complex system that is more than the sum of its parts” (Patton 2002, p.41). The case study is heavily embedded in situation and experience (Patton 2002) and, therefore, is context sensitive. In order to find meaning, the context must be examined.

In this doctoral study, a case is broadly defined as an individual or participant. The principles of an intrinsic case study model were conducive to this study’s research questions, accommodating for multiple constructions of participants intense work experiences. The intrinsic case study gains a better understanding of the actual case with the purpose not to build theory, although that might follow (Stake 2000).

A key issue emanating from the case study is that of generalisability. “The search for particularity competes with the search for generalisability” in case study work, where generalisation is most often sought in the research community, even among qualitative
methodologists (Stake 2000, p.439). Within the constructivist paradigm, research is time and context bound, and as such, wide ranging generalisations are not sought (Green 1995). Yet, whilst it might not be appropriate based on philosophical grounds, Stake (2000) suggests that the intrinsic case study can present some form of generalisability. The intrinsic case is amenable to the transfer of knowledge through the provision of vicarious experience (Guba & Lincoln 1994). Stake (2000, p.439) claims that the reader of a well encapsulated case study perceives the ‘story’ in their own way such as to “vicariously experience these happenings and draw conclusions (which may differ from those of the researchers).” As such, generalisation lies within the reader’s perception of the case study (Green 2002).

Criteria for Assessing Quality in Constructivist Research

Traditional scientific research addresses the criteria of internal validity, external validity, reliability and objectivity when assessing rigour (Guba 1981; Guba & Lincoln 1994; Lincoln & Guba 1985). Yet, the assessment of quality in qualitative inquiry is arguably not well resolved (Guba & Lincoln 1994) manifesting questions about its legitimacy as a form of research inquiry (Flick 2006). Can qualitative research be assessed with the same criteria and concepts as quantitative research? Furthermore, can research be ‘valid’ and ‘reliable’ without being subject to the traditional ways of assessing validity and reliability? (Flick 2006, p.367). Given that the philosophical underpinning and purpose of an inquiry will govern the criteria used to assess its quality (Patton 2002), the quality of this study will be assessed according to criteria developed by Guba and Lincoln (1994).

Trustworthiness

In constructivist inquiry, trustworthiness is viewed as the parallel criteria of quality to the conventional paradigms (Guba & Lincoln 1989). Guba and Lincoln (1994; 1998) identified four criteria for judging the quality of trustworthiness in the constructivist inquiry – credibility, transferability, dependability and confirmability. The trustworthiness criterion has been criticised as ‘suspect’ for its ‘parallelism’ to the positivist framework (Guba & Lincoln 1994). Each criterion has been noted in Table 3 parallel to the postpositivist or traditional sciences criteria used for establishing rigour.
Table 3: Guba and Lincoln’s Trustworthiness Criteria for Constructivism (Guba 1981; Guba & Lincoln 1994; Lincoln & Guba 1985).

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<th>Trustworthiness</th>
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<tr>
<td>Credibility (analogous to internal validity)</td>
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<td>Transferability (analogous to external validity)</td>
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<td>Dependability (analogous to reliability)</td>
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<tr>
<td>Confirmability (analogous to objectivity)</td>
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**Credibility**

Lincoln and Guba (1994) examined techniques for increasing or testing credibility. These techniques included prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis and member checks. Each of these will be discussed and explained in terms of this research study.

**Prolonged Engagement**

With prolonged engagement there is substantial involvement at the site of the inquiry, in order to overcome the effects of misinformation, distortion or presented ‘fronts’, to establish the rapport and build the trust necessary to uncover constructions, and to facilitate immersing oneself in and understanding the context’s culture (Guba & Lincoln 1989, p.237).

This practice provides quality and reduces the likelihood of participants behaving in a way that meets the perceived expectations of the researcher/s.

In this research, prolonged engagement occurred over the course of the study from the first initial visits for the WANE project in 2004 to the final interviews conducted for this study in mid-2006. Given this doctoral study’s interest in re-interviewing participants, it was critical that an element of trust be established between the researcher and the participants, and
between the researcher and the employer. The degree of trust built between participants and the researcher was evident from the personal and often raw accounts disclosed in the interviews. While there may have been considerable time-lag between the two interviews with participants, frequent contact was maintained with participants and employers in the form of email exchange and regular visits to the firms. These practices were an attempt to facilitate a smooth re-entry into the field for the second interviews. In some respects, the regular contact seemed successful as second interviews were conducted with 18 participants; however, 24 participants were contacted in total (this has been discussed in further detail under ‘achieving and maintaining access’).

Persistent Observation
Where prolonged engagement provides the researcher with scope, persistent observation enables depth. The aim of persistent observation is to “identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail” (Lincoln & Guba 1986, p.304).

This study used persistent observation by looking for those characteristics or elements that were pertinent to its focus. This was achieved through repeated visits to the field looking for ‘confirming’ and ‘disconfirming’ (Green 1995) evidence in light of participants intense work experiences. For example, one participant had commented about the recent challenges and stress experienced in her role. This was later confirmed when she forgot our interview time and was too busy to break from an important internal meeting to meet with me when I arrived to interview her. Concerns about being observed (Patton 2002) were abated given my status as an external member of her community, I did not have an IT background and, hence, was seen as an outsider.

Triangulation
Borrowed from the application of trigonometry to surveying and navigation, triangulation conveys that more than one source; or in this case, method is needed to establish a finding
In this research, triangulation of data collection methods took place. This occurred by cross checking data from interviews, archival data, journal entries and observational notes. For example, comments made by participants in the interview about intense work within the firm could be corroborated with data obtained from the organisation’s archival data plus, the journal and observation notes about the working environment.

The process of triangulation occurs throughout collection of data and analysis (Stake 2006). In one instance, a participant’s comments about long work hours and chargeable hours were checked by asking the managing director about the policy of work hours. Furthermore, examination of the researcher’s observational notes, more specifically the time of day that the firm’s employees had responded to my emails, shed further light on the pattern about long work hours.

The use of triangulation to illustrate credibility has frequently been perceived to “confuse more than it clarifies, intimidates more than enlightens” (Bogdan & Biklen 2003, p.107). For example, Stake (1995; 2000; 2003) acknowledges that observations and interpretations cannot be perfectly repeated. Yet, a strength of triangulation is that it can serve to clarify meaning by identifying the different ways the phenomenon can be seen (Stake 2000; 2003).

Peer Debriefing

Peer debriefing is the process of engaging “oneself to a disinterested professional peer to keep the inquirer honest, assist in developing working hypotheses, develop and test the emerging design, and obtain emotional catharsis” (Lincoln & Guba 1986, p.77). The peer debriefer challenges the researcher asking questions about the study’s focus, the methods, and the
findings being explored (Green 1995). My husband – an IT worker - was frequently consulted during the course of the study. These conversations were rather informal and often took place over a casual meal or when driving home from work. Given the informal nature of the conversations they were not recorded, although notes were made in my journal.

Negative Case Analysis
Negative case analysis is the practice of searching for data that contradicts the findings. As described by Patton (2002, p.554),

where patterns and trends have been identified, our understanding of those patterns and trends is increased by considering the instances and cases that do not fit within the pattern. These may be exceptions that prove the rule. They may also broaden the rule, change the rule, or cast doubt on the rule altogether.

If no contradictory data surfaces, the researcher can be satisfied that findings are credible.

This practice occurred throughout the fieldwork and analysis. For example, the common experience of long work hours emerged as a common theme across the cases. Yet, further examination suggested that working long hours was not directly attributable to intense work for all participants. Some participants experienced intense work without working long hours.

Member Checks
Member checking is the process whereby the research subject provides critical observations and interpretations of the findings (Stake 1995). This process occurs throughout the fieldwork and analysis stages of the study. Member checks for this study were conducted in an ad-hoc manner occurring informally rather than in a formal, documented form. When some participants were interviewed the second time, they were asked to embellish or explain any ambiguous comments made in their first interviews. For example, Charles made a somewhat random comment in his first interview that he “… could not have done it [long work hours] without her [his wife].” The comment was made rather flagrantly and was difficult to
interpret given that the context in which it was stated was not clear. This was such a rich comment but I needed to understand more about the context in which it was made in order to understand what he meant. Member checking occurred during his second interview where I read back a passage of his transcript and asked him if he could remember the intent behind making the comment. When I mentioned the context surrounding the comment Charles was able to elaborate further. This process took place regularly with participants but could not always provide fruitful interpretations. Some participants could not always remember the context in which they made statements and therefore, they could not provide more robust interpretations. On other occasions, when participants were asked to elaborate on comments they had made in the interview, they could not articulate what they were thinking. For example, Nina could not explain what she meant when she said her husband was dedicated to his work other than saying that he stresses a lot about work.

It is important to note the distinction between member checks and triangulation where the former “is a process carried out with respect to constructions” whereas the latter “is a process carried out with respect to data” (Lincoln & Guba 1985, p.315-316).

**Transferability**

Transferability is often viewed in parallel to external validity or generalisability (Guba & Lincoln 1989). The “burden of proof for claimed generalisability” (Guba & Lincoln 1989, p.241) rests with the inquirer or the sender where “burden of proof for claimed transferability” is on the receiver. The receiver or the reader determines whether transferability can take place based on the ‘thick description’ provided by the researcher. Transferability was discussed earlier in this chapter.

**Dependability and Confirmability**

Dependability is viewed in parallel to that of reliability where confirmability is in parallel to objectivity (Guba & Lincoln 1989). Dependability and confirmability of the research can be checked using an external audit, where a professional person external to the research checks
the process of data collection and the data. “That part of the audit that examines the process results in a dependability judgment, while that part concerned with the product (data and reconstructions) results in a confirmability judgment” (Lincoln & Guba 1986, p.77). The credibility criteria were addressed through consistent exchanges with the peer debriefer throughout the course of this study. For example, the peer debriefer was consulted to clarify technical jargon that participants had mentioned in their interviews. Hence, an external audit was deemed unnecessary for this dissertation. Furthermore, a data trial is available through the NVivo software program.

**Ethical Protocol**

Ethical conduct of qualitative research is much more than following guidelines provided by ethics committees. It involves a weighed consideration of both how data collection is conducted and how analysed data are presented, and will vary significantly depending on the details and particularities of the situation of the research (Ezzy 2002, p.51).

A copy of the ethics clearance is attached as Appendix 7. The University subscribes to the principles expressed in the Joint NHMRC/AVCC Statement and Guidelines on Research Practice of May 1997.

Gaining informed consent is a general requirement of the ethics process. However, Mason (1996) suggests that gaining it is more complex and difficult than perceived on the outset. With intent to gain an ‘informed’ consent, participants were provided with information about the PhD study prior to interviews taking place via emails and, where necessary phone conversations. A more formal information statement was given to participants if they accepted an invitation to be interviewed (refer to Appendix 8 for a copy of the formal information statement). It was during the interview that the study's outcomes and objectives were discussed (Guba & Lincoln 1994) with each participant and any questions answered. The consent of each interviewee to voluntarily participate in the study was an
acknowledgment that each had been adequately informed about his/her contribution to the study, how data would be used and my obligations to preserve confidentiality and anonymity for each participant (refer to Appendix 9 for a copy of this study’s informed consent).

The privacy and confidentiality of interview data were maintained through a number of means. Interviews were recorded and these data will be securely stored for five years as prescribed in University regulations. Interviewees agreed for the collected data to be published as a doctoral dissertation on the condition that their anonymity was preserved and that their identities remain unknown. Participants’ anonymity was maintained through the coding of respondents’ personal details and access to their identities was limited to me and my academic supervisors. The employing firms of the individuals who participated in the study did not have access to any data except WANE reports which do not ascribe identifiable information to participants.

On the outset, the ethical nature of the interview schedule was not perceived to negatively impact on interviewees, although, discussions about work and work/life inevitably uncovered personal experiences and proved to be a sensitive topic for some. Participants were informed at the commencement of the interview that some of the questions could evoke discussion about personal or private experiences that did not have to be disclosed for discussion, if considered too personal. Participants freely shared their story in the interviews.

Participants of this doctoral study were not exposed to any form of risk from their involvement with the study. The meeting place for interviews did not compromise the safety or security of the interviewee or me and were conducted at their place of work. There were two occasions where employees who had left their employers after the first interview were interviewed at a mutual place of convenience for both parties.
Summary

In summary, this chapter has examined the methodological base of the study which is a constructivist inquiry. It provides an explanation about the inductive, emergent design that underpins the study and its research questions, the sampling strategy and how access was achieved and maintained. The research methods, including observational field notes of participant’s workplaces, face-to-face interviews and journal notes were provided. Reference to coding of data was discussed followed by the critical issue of assessing the quality of the data. Finally, the study’s ethics protocol was described. The research methods employed in this study enabled the collection of data needed for the case studies which are presented in the next chapter.
Chapter 4 - Presentation of the Outcomes from the Fieldwork:
Individuals Experiences of Intense Work in the IT Sector

Introduction
The previous chapter explained in detail the methodological basis of the study. This chapter describes the context of the study and presents seven case studies. The case studies report the experience of intense work for seven individuals who had participated in the WANE project and agreed to extend their involvement with an additional interview for this doctoral research. The case studies have been compiled from the two interviews conducted with the individual plus, data from interviews with the owners/employers, managers, colleagues and HR related documents and policies (where available).

The aim of this study is not to compare the stories of each individual but rather to explore the experience of intense work for individuals who work in IT. From these case studies the notion of intense work is illuminated for each individual. The stories in this chapter reveal some similarities and differences in each individual’s experience of intense work. Each case is presented according to: a storyline; the experience of intense work in the organisation; the interaction of trajectories and the experience of intense work; and, the intended career trajectory. The structure of this format, however, provides flexibility to enable the unique experiences of intense work to emanate for each individual.

The case studies focus on one female and male in each of three different age groups: mid-20s to mid-30s, mid-30s to mid-40s, and mid-40s to mid-50s. One male, aged over 60 years was also included but a female participant within this age group could not be found in the WANE sample (this is consistent with the age and gender profile of the Australian IT workforce at the time of the study). Individual stories have been presented in this order.
The seven cases were situated in two IT organisations. Before presenting the individuals’ stories, brief profiles of the two employing IT organisations have been included to provide some contextual information. Pseudonyms have been used to name the IT companies and the seven individuals to ensure anonymity.

**IT Company Profiles**

At the time of the first interview, the seven individuals who participated in this study were employed at one of the two IT companies - Company A and Company B. When the second interviews occurred, two individuals had moved on from these companies and were re-interviewed at their new workplaces.

Before proceeding with the individual case studies, I have provided brief contextual information about the IT companies that employed these individuals. Like the case studies, the company profiles have been written from interviews with owners and employees of the companies, observational notes and available HR documentation. The inclusion of the IT company profiles provides a rounded perspective of the organisations and frames the subsequent case studies. Furthermore, individuals’ experiences of work will be understood in relation to formal and informal structures within which they work and covers the broad areas of recruitment, training, compensation, flexibility and the structure and nature of work. The pseudonyms of the seven individuals have been provided in the company profiles where direct quotes have been used. Given the small size of these companies, identifiable data have not been ascribed to quotes from other people at the organisations. In places, pseudonyms have been used to ensure anonymity. For the two individuals who changed employers, information about their new companies has been incorporated into their individual case studies.

**Company A**

Company A was a software firm founded a decade or more ago. The founding owner/director, Charles, had identified a niche product that was recognised for its agility, speed and quality: "None of them [other companies] can come in and truly execute stuff to
The speed and quality that we’re able to do it in.” The direction and vision of the firm was established and driven by Charles:

\[
\text{[we] started the company because we are interested in new technologies and different ways of doing things. We are not the sort of people who will do the same technologies even if we were getting paid good money to do it.}
\]

Early in the organisation’s inception, Charles invited a past colleague to join the firm as a co-owner/director. As the two owner/directors of the firm, Charles and the second owner/director were positioned at the top level of the organisation. However, a common perception held amongst employees was that the organisation was flat. The company expanded in size and grew progressively until it had about 15 - 20 people about five years later. Of this total, two were female and the majority of staff were aged between 31 and 40 years old with fewer members at each end of the age spectrum. Turnover was rare at the organisation. While one owner/director reported only one person voluntarily leaving the organisation in the last year, reports from employees at the organisation suggested that three individuals had moved on. Two of the three individuals were thought to have been asked to leave because of poor performance and negative attitudes.

There was no formal HR department at Company A. Instead, Charles and his co-owner/director, assumed responsibility for HR related issues. Questions directed to individuals at the firm pertaining to HR activities were often met with a querying look; Brendan, a senior software engineer responded: “What do you mean by HR policies?”

**Recruitment**

The company’s involvement in constant, rapidly changing technologies and the execution of quality service demanded high standards of its staff. The emphasis on quality of work could be traced back to the company’s recruitment practices. Recruitment was viewed a critical task for ensuring quality within the company, as reflected in this comment by the second owner/director:
... every services business is dependent on its people we've got nothing tangible to sell other than the intellectual capital and capability of our people so we place a lot of emphasis on recruitment.

The organisation differentiated itself through "the quality of the people" and its high levels of remuneration, as noted by Harris:

You really have to pay top notch salaries so that we can retain those people, you know, and having been involved in the recruitment work, I know just how hard it is to find those sorts of people.

Underpinning the requirement of quality was the placed value on experience. Harris went on to say: "We employ people with generally 10 years experience and sell the quality of the people rather than ... we can do the work cheaper". The perception of experience was interpreted more broadly by Charles, who expressed a desire for applicants who were highly experienced, yet also creative. He said:

We deliberately go and get people who are highly experienced and creative – the youngest is 30. In fact, they are all in their 30s and 40s age bracket. This age bracket appears to be an unintended consequence of the mix of highly experienced and creative people.

The function of recruitment was co-ordinated by the owner/directors but devolved to a small number of staff. Recruitment occurred through a three stage process where applicants were asked to first respond to technically based questions in a telephone interview. A comprehensive set of interviewer notes and guidelines had been developed for staff conducting the phone interviews which could take anywhere from 5 to 20 minutes to complete. Applicants who responded adequately to questions were then put through a multi-stage process involving technical matters, IT skills and problem solving, as well as the traditional interview process with senior management.
Henry, a senior software engineer involved in the recruitment process, was impressed by the transparent criteria and feedback to job applicants. He said:

*We don’t accept sloppy, you have to be excellent and we’re going to put you through a grueling process to determine whether you’re excellent or not, and it was. I just thought, ‘that’s struck me out’, and I thought, ‘wow, what an honest appraisal of the situation’.*

The rigorous nature of the process, however, was potentially resulting in a reproduction of the company’s workforce. Simon highlighted the recruitment of few females in the company and a lack of diversification amongst its people: *“We have rigorous recruitment practices and end up with a similar range. There could be more diversification, yet female programmers are extremely rare”.*

There was evidence that recruitment occurred through personal networks. Some individuals employed at the firm had worked together previously in other organisations.

*Training*

Training within the company, either informal or formal, extended from the recruitment of high quality, self-managing individuals. As a condition of being employed in a high-skills end organisation with good remuneration, employees were expected to be responsible for the self-management of their careers, as demonstrated in this next quote by Simon:

*We basically need people who can manage themselves. We don’t need people who need to be part of a team, have a team leader manage their day. We need people that we can trust to go and implement a software system virtually with no assistance or oversight and be confident that they’ll do it to a standard so that when we go and deploy it … it lives up to the quality we try to sell as our message.*

Self-management of careers traversed the activity of training where the company valued autonomous learners within a structure requiring little supervision. Individual accountability and responsibility were valued in the firm, as specified in their induction
The nature of the firm's business demanded individuals maintain high, quality skills in order for the company to differentiate from other organisations. The second owner/director commented:

*We are fundamentally more interested in being at the edge. And so if you accept that, then fundamentally that edge is always going to be shifting so you can never really stay the same as you are and doing the same sorts of things.*

The necessity to remain skilled was a precondition of being considered of value to the company. This was emphasised by Charles who said, "*You’ll fall behind and you’ll no longer be the sort of employee that will be of benefit to us as a company*". Hence, work was based on evolving skills and lifelong learning for individuals, which was understood by the organisation’s people. Henry commented:

*Um, I think that if you’re going to work in a knowledge worker sort of position where you’re really basing your value on your skills and knowledge then you have to keep updating that information. Um, IT is a field that changes every five to ten years and so you just keep learning. And I think it’s good. I mean, it’s what I prefer to do (yeah). I wouldn’t really like to think I’m skilled at something and that I’ll do it the same way for ever and never have any more change.*

There were mixed experiences and views about the pursuit of current skills and knowledge within the work domain. The view of the owner/directors was that extended hours were required to keep up with technology. Charles commented, "*You will not keep up with the technology if you are only doing it as a job*". Some in the company affirmed this view, such as Nina and Laurence. Their case studies in this chapter showed evidence of upgrading skills and knowledge in their own time. Others in the company, however, reported rarely participating in training or learning skills outside the work domain. Brendan commented that most of his skills were learned on the job and very rarely required training in his time outside of work.
While the expectation from management was for workers to “… go out there and do it [training] in your own time and teach yourself how to do it” there was evidence of the company funding formal training. The second owner/director mentioned that the company had paid and provided time for nearly all of their people to complete specific training at a certificate level. This was considered an exception to the rule, however, as employees with certified level training could be charged out to clients at a higher rate than individuals without the certificate. Hence, this formal training conducted during work hours was financially beneficial to the company.

Compensation

Individuals were employed under an Australian Workplace Agreement negotiated between the individual and the company. The general view across the company was that individuals were appropriately well-remunerated for work somewhere between $90 000 to $120 000, according to the second owner/director. He went on to say, “We just pay these guys um, I think, bloody good money. They get paid well above what they could get paid anywhere else in town. And we also, um, pay them for overtime”.

When working overtime, individuals could either receive payment for hours at a reduced rate of pay or take the hours in lieu – the latter option was most preferred by employees and frequently taken over paid overtime. There was an expectation that individuals would be available for work when needed, as captured in this next comment from an employee:

There is the expectation that you’ll be available for work whenever it’s needed. So if a system falls over on a Sunday morning, um, and your name is, you know, or somebody who’s meant to be supporting that system it is expected that you will fix it and you won’t say, ‘I’m not available till Monday 9 o’clock’ [yeah]. Um, but no there’s no real expectation of overtime [hum].

Simon mentioned taking multiple leave days from work as he had accrued 60 hours of overtime in a week and a half. In the view of the second owner/director, overtime was paid to compensate individuals for not spending time “at home and doing other things”.
In Harris’ opinion, the owner/directors provided opportunities for individuals to be involved in different business activities, such as recruitment processes or less glamorous work. Participation in the company’s activities was likely to lead to either financial rewards or work on more interesting projects.

The company also offered a salary continuance policy to individuals who were not able to continue working because of an accident or illness. The policy automatically covered individuals up to $5,000 per month with the option to extend coverage for any additional amount up to 75% of salary. This was available to people who worked more than 20 hours per week.

**Flexibility**

The company’s perspective of flexibility discouraged long working hours and promoted flexible practices within the firm. The second owner/director said, “... we practice a totally flexible environment”. As mentioned earlier, paid overtime or accumulation of banking time in lieu acted to financially compensate individuals for the loss of personal time. Individuals were given flexibility to choose their start and finishing times and they could work from home when needed. Interviews with individuals in the firm indicated that only a few people acted on these forms of flexibility and only when necessary. For example, Nina worked from home when the carer of her children was sick. Hence, it appeared that teleworking was not an initiative routinely practiced within the company.

Flexibility was also defined by individuals in the company to cover employees who did not work full-time hours; hence, two employees who worked four days per week were seen to be optimising flexible practices. Brendan remembered early in the company’s inception when an applicant was refused an employment contract with the company because he only wanted to work a limited number of days a week. His offer was refused because the company could not afford to manage the resources for a part-time employee.
While individuals were offered these forms of flexibility, they were expected to ensure their customers were not disadvantaged in the process and that the owner/directors at Company A were informed of any changes to the usual routine. This was further reflected in the company's induction manual which listed 'commitment to work-life balance' as a value of the firm. However, this value did note 'commitment to work-life balance – flexibility with responsibility'. Flexible practices were believed by Charles to be 'family friendly'. He believed that the company was more empathetic with people who had children, particularly women more than men as women assumed responsibility for the majority of childcare. The achievement of work/life balance, when examined with general practices in the company, appeared to be rather challenging to pursue for individuals within this company. This has been discussed in further detail in the case studies. Henry commented:

*You know, certainly the official policy, office sort of attitude is, ‘we’re flexible, tell us what you want and we’ll deal with it’ [yeah]. I don’t know how it would happen in reality, depends on what people wanted I guess.*

The company had an unwritten policy on holiday leave which granted leave to individuals throughout the year but not at the same time as others in the company.

**Structure and the Nature of Work**

Whilst the owner/directors were clearly positioned at a level higher than employees and a project manager was responsible for resourcing individuals to projects and overseeing work, the organisation was largely described as flat. There was an inference that perhaps experience and length of employment accounted for some level of hierarchy, however, this was not the experience at Company A. One senior software engineer said: “*There are people who are um more experienced and been with the company longer than other people. But still we’re almost all sort of thirty or above age group with similar levels of experience so it’s, it’s one of the flattest companies I’ve been in*.”

The company deployed a model of billable hours through which consultants conducted and charged work to clients by the hour. Consultants were required to accrue 40 billable hours per week, which necessitated efficient and effective management of time to ensure
manageable hours of work. Overtime was paid at either 50% of the hourly rate for consultancy or as time in lieu; the latter option was the preferred option of employees. Much of the work was self-managed by consultants and projects varied greatly in size and time allocation from a few hours to around six months. There was high mobility of skills across the firm. This meant that although longer term projects provided marginally more job security, at any time, individuals could be withdrawn from a project to apply their skills to another project.

**Closing Comments**

At the time of the first interviews, the organisation was described by an owner/director as being in an early rapid growth phase and was being readied for potential sale in the next few years. Some nine months after the first interviews had been conducted, the company had been taken over by a much larger company.

**Company B**

Company B was a privately owned IT consulting firm established by its current managing director more than 25 years before. At the time of its inception, the company's core business entailed work on mini-computers, custom writing major distribution and retail systems. The firm then shifted its focus to the support of packaged solutions. As a consequence, the skills required in the firm were largely project management based rather than pure, IT technically based skills. This change was reflected in the following comment by Fredrick, a manager:

*I mean the thing about IT I guess is it's not just sitting in a dark corner writing software. It's ... it's ... and that's what we try to avoid. It's, it's more about ... um finding out people's requirements and building solutions that suit them which may or may not involve writing software.*

The way that work was organised and conducted had changed over time to reflect the firm's shift in the provision of its services and products. Insights from Sam indicated that custom software was applied to the task jointly by teams of four or more people. It
appeared that consultants did not work so much in formal teams now. They had “autonomous” roles and worked in a “non-directed” manner.

At the time of the first round of interviews, there were up to 15 staff and the company retained high levels of staff with average length of employee service exceeding 10 years. The firm’s age profile was heavily represented at each end of the spectrum with fewer members aged 25 to 40 years (five were younger than 30 years, a further five were between 41 and 50 years and another four were between 51 and 60 years of age). The structure of age had stratified the culture of the company creating two distinct cultures – “the oldies” and “the younger ones.” One in four of their people were female, representing each age decade from the 20s to 50s.

**Recruitment**

The company had more recently reverted to recruiting candidates at graduate level. Disillusioned by the practices of recruitment agencies, Company B had entered a sponsorship program of an IT study course within a university. The program was used as a platform for the recruitment of students to the firm. Students of the program would complete two long periods of industry based learning with sponsoring firms, one in the first semester of their second year, and the other in the second semester of their final year.

The program was a highly attractive recruitment strategy for the firm as the course curriculum was well aligned with the business products of Company B and the type of candidate they were looking to recruit. A consultant highly involved with the sponsorship program noted that the program’s aim was: “to produce IT managers ... not IT developers, computer programmers”. Furthermore, the managing director commented that they were looking for people: “who are both computer savvy and articulate and able to understand business concepts and talk to people”. Approximately one third of the firm’s people had been recruited through this program.
There was a general sense from employees that high level interpersonal skills and cultural fit within the firm were more salient attributes required of candidates than technically based skill sets. Grant, a consultant, believed that they looked for: “... *someone that’s versatile um that can get along with other people ... I guess one of the key things, is getting along with the people that are, that are here (yeah)*”. Sam believed they were looking for candidates who were: “... *crafty ... questioning [PAUSE], good listener [PAUSE], hard worker ... clever. And too bright*”. The managing director targeted recruits with: “*communication skills, self-confidence, um ... organisational skills, time scheduling, uh ... and ability to um, to think through issues and, and look for alternatives*”. The latter point was further supported by Fredrick:

> if they’ve chosen hardcore, hardcore programming subjects then I probably won’t employ them. I’m more interested in people who have done philosophy or micro-economics or something like that. Because it, it’s uh a wider acceptance of what’s going on in the world.

The near exclusive recruitment of graduate students had resulted in a polar extreme age profile of young and old employees. The managing director defended the perceived void of middle aged people in the firm by suggesting that the firm’s intent was to maintain career pathways for developing employees:

> There’s an issue that we had been addressing and that is that we don’t want to block career paths by bringing in somebody just above the people who are developing here ... We’re conscious of the fact that they [graduates] can do more things every year. And that if you slot somebody senior in above them then those opportunities won’t be there. And uh, then good people will go somewhere else

These comments implied that development opportunities were only available to junior employees. Consequently junior employees were the youngest, given the firm’s recruitment from the industry sponsored program.
Recruitment was also influenced by gender with a preference to recruit women to balance the gender mix of the firm. A 50:50 gender ratio was viewed as an effective marketing strategy to distinguish the firm from its competitors, according to Andrew, a consultant:

*It is a strong marketing tool to have both male and female staff on board, especially when you go to sales level because otherwise you can end up looking like every other IT company when you walk in with five guys in suits trying to sell … trying to sell stuff and it just … you don’t get the right people talking and you get a lot better viewpoints as well when you’ve got a good mix of staff.*

**Training**

The calculation of 27.5 chargeable hours per week afforded employees 20 days per year for training. It was not known what frequency of training was taken by employee informants. Training needs were determined by profits generated from the firm’s software products. Legacy software commonly maintained by senior consultants, who were aged forty years and over, had a diminishing client base. Despite this, formal training opportunities were rarely authorised for this group of employees. A further constraint was that training for these products was conducted overseas. Grant, who had attended a spattering of formal training programs, experienced frustration working untrained with new software functionality. A compounding frustration for this employee was that his lack of skill with the product’s new functionalities inhibited his ability to generate further business from his clients. He said:

*It’s very hard because I mean you take the example um there’s some new features with the new package um with the new version that we’ve got. Now to, to try and get that to work I guess you need some training to, to implement that (yeah). Then to go and show that say to the existing customer base, if order for them to see it and possibly buy it, but then I have to come and come up and sort of say, ‘well I need the training, send me say to the States to learn about this. So that I can show this and possibly earn some money’. So there’s no, there’s no guarantees with anything right, so that’s where it gets.*
The timing of training programs to cover supply and demand was suggested to present difficult challenges for small firms, particularly from a financial perspective. A consultant with management and client responsibilities raised the fine tensions experienced in forecasting demand prematurely which might result in skill atrophy versus overlooking training of new skills which in turn could result in a stagnating workforce and stale client offerings:

*If you don’t actually do something serious with it within that six weeks of doing the training half the time you may as well not have bothered doing the training. And we just don’t—we’re, we’re in the lap of our customers in terms of what they want us to do. And so it’s a real chicken and egg situation of um … it’s not economic to develop the skills if we’re not going to use them but we may not get to use the skills if we don’t develop them. And, and we may not sell them quickly enough.*

While skills in the firm were not purely IT related, some employees felt pressure to maintain current skill sets. Sam described his experience in terms of ‘survival’ which he first noticed twenty years ago. His experience is discussed in great detail in this chapter. A young consultant was well aware of the pressures that existed if he wished to pursue a technical role: “I really … I don’t want to be in a technical role for too long. It’s too hard to keep up. You’d go mental trying to keep up with all the technical stuff these days”.

**Compensation**

Pay increments were reviewed annually and were widely understood by the firm’s employees to be based on the acquisition of additional skill sets and knowledge over the twelve months. Beliefs by some in Company B, suggested that incremental pay increases discriminated on the basis of age as it was assumed that junior consultants (and, therefore younger people) in the firm were learning more than older colleagues as typified in this comment by Andrew:

*... the salaries for graduate staff do tend to rise a lot quicker or a lot faster than experienced staff, as well. So if there’s an across the board salary rise you might find that the graduates will get a larger rise just because their knowledge levels increase a lot quicker or they become a lot more saleable.*
These comments implied that young employees learn things quicker than older workers in the firm and that young employees’ skill sets are more marketable than their older colleagues.

Whilst there was no explicit animosity from senior workers about the differential pay increments some tension was present as indicated in this next unfinished comment by one of the older employees at the company:

*Some of the people got an increase due to the extra expertise that they picked up over the year. And (name of consultant) and I laughed and said, ‘well we’re obviously worth nothing this year because we didn’t get that level’. But, uh it, you know, it’s a matter of rewarding the young ones because they, as I say they’ve been given more responsibility and things so that’s been rewarded, but...*

Financial recognition of knowledge acquisition was evident among senior consultants in the firm but it seemed to be associated with formal qualifications. Rhonda, an older employee, reported only receiving a pay increment equivalent with the CPI for some years of employment whereas one of her colleague of similar age reported receiving a lump sum payment for completing qualifications. The learning opportunities of older employees working on legacy software were heavily constrained as these software packages did not generate dollars for the firm. Many older consultants working on legacy software reported a lack of current training opportunities and hence, presumably, did not receive comparable pay rises to other colleagues. These findings suggested that the firm’s practices do not value the learning and development of older workers and highlight potential skill redundancy with age.

**Flexibility**

Overall, individuals at the firm gave positive evaluations about integrating their work within their lives. Flexibility existed in many forms within the firm, such as working from home, flexible working hours and amendments to working arrangements/employment status. The flexibility of working hours afforded employees conduct of work at their
discretion which was advantageous for workers with parenting responsibilities. Employees with children often commented about scheduling their work, permanently and temporarily around the events of their children. One employee traded her annual pay rise for additional days leave to spend with her children. Another had reduced his hours so he could take his children to school before coming to work. He said, “The flexibility plays a big part. Um like I said if I need to do, do things or take time off um having that flexibility um counts for a lot”. One consultant mentioned leaving work early to attend her daughter’s ballet recital and on the day of an interview, Fredrick left work early to pick up his son from a school camp. This same worker, however, was prone to working long hours which suggests that not all employees worked fewer hours but the flexibility enabled them to conduct their work at times convenient to them.

Similar practices were also evident amongst employees without child-care responsibilities, emphasising the highly flexible nature of the firm. Sam, who worked with the legacy software, had suggested reducing his hours to four days a week to stop him from feeling idle. Employees were also known to take long absences from work to pursue personal journeys and would later return to their job at the company. Travelling to and from work were reported to be time intensive activities for some of the firm’s people. The option to work from home gave them more time for personal use. Teleworking was driven by personal need and the demands of work. People could work from home if they were busy or tired. There were no permanent patterns of working from home except for the managing director who reportedly worked from home the same day each week.

The flexibility given to employees was perceived to be one of the firm’s greatest assets. Andrew, who occasionally worked from home, viewed the flexibility as compensation for the voids the firm was not able to provide:

The flexibility compensates for a lot [LAUGHTER]. It compensates for the flat management structure and probably the, not repetitive nature, but yeah, the nature of the work not being the latest ... the latest technology.
Structure and the Nature of Work

The managing director was recognised by employees as the owner of the firm. The managing director’s ownership clearly demarcated him as the leader of what employees commonly described as a flat organisation. However, the layers of formal and informal roles indicated forms of structure not explicitly identified by its people. For example, employees with high charge-out rates were perceived to be high performers in the organisation and, therefore, were perceived to be of higher esteem.

A consultant tier structure—senior consultant, consultant and junior consultant, based on level of experience, was seen by people in the firm to determine the charge-out rates for clients. Senior consultants and the managing director thought that the tier structure also made distinctions by the nature of work tasks dictated by size of client project and product experience. The managing director commented:

… someone like (the name of a senior consultant) who’s been working in manufacturing and distribution systems for twenty or thirty years understands how those systems work and can talk to the clients about nuances about how they do things. Whereas the younger ones haven’t seen as many examples yet so they, they can’t necessarily do all of that”.

The consultant tier was perceived to not indicate any form of reporting relationship or authority. This was further reiterated in the following comment by Fredrick:

So everybody wants to sort of not really be boss but everybody feels as though they’re capable of making decisions. So just because you’re a consultant doesn’t mean to say that you won’t be given the opportunity to make decisions that say a senior consultant makes.

There was a functional structure within the consultant tier; consultants were grouped according to use and knowledge of packaged software products. This functional structure appeared to be typified by age with some senior consultants working exclusively with older legacy software packages. Sam believed that attempts to skill the junior consultants with legacy software knowledge were futile as they were not interested in working with
the older software package. Junior consultants were invariably young because of the firm’s strategy of recruiting university graduates. Separate to the consultant tier were stand alone job positions, with individualised titles ascribed to Mandy, a sales manager, a manager and an office administrator. Alongside the managing director, the latter two positions managed human resource issues within the firm.

There was an informal functional grouping based on the firm’s two main products: an older software package with dwindling customer base and a more modern package: which was the crux of the firm’s business. People generally worked with one package; the majority of the firm’s consultants worked with the recent software, and a smaller number of consultants, all senior, worked with the older package.

The firm operated using a model of chargeable hours: work conducted specifically for the client and consequently charged to the client. Consultants were required to accrue at least 27.5 hours a week of client work with an overall working week length of between 37.5 and 42 hours. The quota of chargeable hours had been calculated based on consultants annual leave entitlements (public holiday, sick and annual leave), 20 days of training per year, and general marketing of products. Consideration of these accommodations meant that consultants needed to work 37.5 chargeable hours per week. The firm contained a tier structure which formed the basis for charge out rates.

The expected hours of work exceeded the hours of work employees were paid. Official hours of work were specified in the employment agreement as between 9am and 5.30pm Monday to Friday equating to 37.5 hours per week. Yet, a clause in the agreement expected people to work a total of 42 hours per week with the difference expected as unpaid work: “Because of the professional nature of our work, you will often work a little more to meet client schedules, to ensure the quality of your work or because you enjoy what you are doing”.
A common theme within the firm was the notion of long working hours. One consultant boasted a week’s record of 98 hours. There was a sense, however, that the focus was on getting work done rather than the number of hours people had worked. For Andrew, the translation of this mantra was yet to be realised:

... in theory they say well we don’t really care how many you do as long as you get the work done. Which I don’t know if they really mean because if I was doing twenty a week, they’d probably question me.

Furthermore, working long hours did not always equate to improved productivity. Fredrick acknowledged that younger workers often worked 60 hour weeks when required yet, he believed that younger employees “did not know what it’s like to work hard”. Andrew commented on younger employees working longer hours than older employees. However, the difference in working hours was attributed to younger people’s inexperience with managing time and distractions:

I wouldn’t say that they’re [younger] any more productive in that time and probably a lot more easily distracted. I know I’m very easily distracted in my work which a lot of the more experienced people here are not.

Closing Comments

Employees’ perceptions of the firm’s future were blurred by the impending retirement of the managing director. Concerns about the sale of the company brought out workers’ insecurities about the future of their employment. Acknowledging their concerns, the managing director had contracted an external consulting firm to propose an organisational structure that would accommodate the gradual transition of the managing director over a five year period. With the re-structure, an employee shareholding scheme was proposed with viability dependent on, at least, a 50% employee shareholding. It was not known what outcomes unfolded for the company.
Dee’s Story

Storyline

Dee was in her mid-20s and lived with her partner. She had no children although she soon planned to be a mother. She had completed a three year business information systems degree and two six month internship programs with different IT employers as part of her course requirements. One program was with a large firm and her second placement was with Company B. Upon finishing the internship, Dee was offered full time employment with Company B to begin at the end of her degree study. Employing Dee for about five years, Company B was her only employer since starting her career in IT.

After commencing in an administrative IT role, Dee transitioned into a pre-IT sales consultancy role. Approximately one month prior to being first interviewed for the study, Dee was promoted to a sales management position. The movement across different positions in the firm was welcomed and Dee’s "need for change [kept] getting satisfied".

Her recent sales role generally encompassed consultation with prospective clients: presentation of products and the capabilities of the firm; determining the needs of the client and the tailoring of a solution; the development of proposals; and the negotiation of deals. Although the role was not supervised by a line manager and situated outside the firm’s structure, Dee was often supported by experienced, senior consultants who would help with the tailoring of solutions and pricing estimations.

At the time of the second interview, Dee was experiencing anxiety and stress in her current position. A critical incident at the firm was the departure of two key senior consultants who worked with Dee in sales. Their departures had significant ramifications for Dee, who was still new to the role. Dee worked with sole accountability for the management of her workload with minimal support from other staff in the organisation. The events leading up to the exit of the senior consultants challenged Dee’s self-esteem and her capacity to successfully fulfill her work requirements.
The Experience of Intense Work in the Organisation

For Dee, her experience of intense work was driven by complex and finely tensioned factors. These included her personal attitude to her work or career trajectory, and organisational structures related to workload and sales and performance. Underpinning Dee’s intense work agenda was the pursuit of success. These factors influenced Dee’s experience of intense work in the organisation.

Attitude to Work

From Dee’s own admission, she was very focused on career and work: “I am constantly thinking about work and um wanting to push myself.” At the time of interviews she seemed to believe that it was an opportune time for her to build a solid career base. She explained:

> what I would like to do is rather focus my, do all the hard work now and get far now and, and relax later on in life ... So I’d rather do it all now because I think later on in life I’d rather just be enjoying myself.

Dee’s commitment to hard work in her youth was associated with negative connotations, as shown in the excerpts below, indicating that her pursuit of intense work was not an enjoyable experience.

Her attitude to work was having an impact on how she chose to spend her personal time. Dee’s desire to perform well in the job somewhat constrained her use of personal time:

> Going out on the Saturday night or whatever I think, ‘oh gosh I could go out all night. But then I’ll be ruined for Monday and Tuesday’ (hum) so yeah I guess I’m finding myself saying, ‘no, I want to have a quiet weekend because I want to do my job really well next week’ sort of thing (hum) and focus on that rather than my social life as much.

Organisational Structures of Intense Work

The structure of work in the firm included the peaks and troughs of workload and the evaluation of performance measured by number of sales.
Peaks and Troughs of Workload

At the time of the first interview Dee had recently been appointed to a sales role. Her experience of intense work was described in cycles with periods of overwhelming work interspersed with feelings of stress and constraints of time and troughs of downtime described as ‘quiet’:

It’s up and down all the time. I mean, last month I was flat out in, there was a period of two or three weeks where it was just crazy and I didn’t have any time and I was really stressed out. And then maybe another two or three weeks later it’s quiet (yeah). So it just, it really varies just depending on who happens to call up and say, ‘I’m interested’ (yeah). It’s up and down.

These cycles had peaks of intensity, yet there was also evidence of downtime for Dee. In the first interview, when asked how many hours Dee was likely to work each day, she commented:

Five … It doesn’t sound like a lot does it? ...realistically, once you, by the time I come in getting coffee and (yeah) I’m always chatting with some people and stuff because I, I’m out the back so I get, so I get lonely so I’m always (laughing) coming out here and (yeah) chatting… I guess it depends, if I’m flat out well then I’ll be doing eight hours a day sort of thing. But … there’s a lot of times though it’s very quiet.

From the second interview it was clear that troughs of downtime had dissipated and the experience of intense work had metamorphosed into a multi-dimensional form.

With the departure of her two assisting colleagues, Dee was largely working on her own which meant that she had larger volumes of work. She had also placed considerable pressure upon herself to do well in the role. When asked to describe the way she was feeling about her work, Dee commented:

Stressed (laughing) (yeah?) Yeah um it’s just very, very stressed. I’ve never, I think I’ve aged in just the last eight months (laughing) … Just, I’ve just put so much pressure on myself um that I’ve got a lot to do in terms of balancing a lot of prospects at the moment (yep) and I’m trying to do it really well and yeah, I’m just waiting for that: that first deal, so generally pretty stressed (laughing).
Although the organisation could perceive her lack of sales as a reflection of poor performance, Dee believed that the managing director was sympathetic to the exit of her sales colleagues and its impact on her capacity to do the job. Dee thought that the managing director was generally supportive of her new implementation methods of sale plus he had employed a contractor to assist Dee with the sales.

Sales and Performance

The firm operated against a model of chargeable hours; work conducted specifically for the client and consequently charged to the client. Working in sales, Dee was exempt from this structure with her performance measured by product sales. After nine months in the role, Dee was yet to make her first sale. This was a critical factor contributing to her intense work agenda. Underpinning Dee’s agenda was the pursuit of success. These were largely perceptual and included self-perception of success, the perceptions by others of Dee’s success, fear of failure, and combating age projections in the workplace.

Dee’s success was shaped by the perceptions that she had of herself as a successful worker and also the perceptions that she wanted others to have of her:

> What is it that makes me put in the extra hours is that I want success, and I want, it comes back to the whole recognition thing I guess and proving to myself that I’m really good (laughing) and proving to everyone else that um, you know, that I can pick up anything and do it really well.

The journey for success was counterbalanced by a fear of failure and was a persistent theme across the interviews with Dee. Although Dee was aware of the stressful nature of her work and its effect on her life, it was clear that her intense work agenda was fuelled by her attitudes to work:

> I don’t want to fail. I’ve always, I’ve always throughout my life, sort of always pushed myself and I guess what mum used to say, is that I’ve got this fear of failure in a way (yeah) … To just leave or um, to give up now, would just be like, I would feel embarrassed, I would feel well, shameful that I didn’t succeed in it.
Dee’s pursuit of success was somewhat tainted by the experience of negative projections of age. Company B’s age profile was heavily represented at each end of the spectrum with fewer members aged 25 to 40 years. Dee described the firm’s culture as being “relaxed and comfortable” but somewhat polarised with two clear cultures existing in the firm stratified by the age of employees – “the oldies” and “the younger ones”.

The size and nature of the firm were perceived to afford Dee opportunities that a large size firm could not offer. It was clear from Dee’s account that Company B was “a great place for a young person to learn and be thrown in the deep end. I wouldn’t be doing what I’m doing now at my age at another company.” However, perceptions of age, in particular others’ perceptions of Dee’s age, clearly impacted on her capacity to conduct her work. Dee quoted a comment by a colleague, who had since left the firm, that prospective clients would see her as “this girl, who’s my daughter’s age.” Dee inferred from this comment that her age acted as a barrier to gaining the respect of her clients, (and possibly her colleagues).

These projections of age had been internalised by Dee who carried anxieties about her capacity to make sales, with clients viewing her as a young female. This was evident when she recounted a story of two colleagues who left the firm. Dee was very anxious about how their departure would impact on her ability to make a sale (without a team of experienced consultants):

[I was] just scared that I wouldn’t be able to um do the role without that support, even though they weren’t supporting me but they, that was the idea of them being there. I wouldn’t be able to make a deal [pause] um [pause] yeah ... And then I started worrying about what that guy had said about age and whatever so it would be me and this other 25 year old guy going in trying to sell whereas before I had me and these two older people ... So then I was like, ‘Oh god. I’m going to have to use one of the other younger guys and does that look worse now [that] I don’t sort of have that age thing to it?
The comments of past colleagues affected Dee’s self-perception of her capacity within her new role. In addition, the internalisation of age as a barrier to success compounded Dee’s capacity to do her job and had a direct impact on her career trajectory, as Dee perceived a sales record at Company B was critical before moving on to another company. Dee explained:

That’s why I’m so keen on having the success behind me if I get some sales and prove that what I’m doing is really good and very successful then age won’t be an issue. I’ll be able to leave here now and say ... say a year, it’s all been settled and what I’m doing is really good and it’s showing great results and that’s very clear to everyone. And then I can, age doesn’t matter then. I can go off to any company and say, ‘well look at what I’m doing’ and this doesn’t matter how old I am, I think.

Dee’s commitment of working intensely was fuelled by her drive for success which was tarnished by challenges to overcome negative projections of age in the workplace. Equating success with securing sales was having a critical impact on her feelings of stress. When asked how she would feel having made the first sale, Dee responded: “Bloody good (laughing), relaxed and confident, again”.

The Interaction of Trajectories and the Experience of Intense Work

Although there were different layers to Dee’s intense work agenda her projected career trajectory ultimately underpinned her attitude to work. Underlying Dee’s experience of work was a sequenced trajectory of life course events. Dee’s perception of reaching or achieving life course events appeared to be plotted against a “timeline” where stages of her life course were perhaps best described as occurring in a sequence rather than overlapping or being in parallel to each other. This type of sequencing, however, was perceived to have had a negative impact on Dee’s non-work life.

Sequencing of Life Course Events

It became apparent in the second interview that Dee’s “timeline” approach to life course events was governed by her decision to have children. As such there were inevitable
temporal constraints and Dee was very clear that motherhood was something she wanted to experience: "I'm obsessed with having a baby at some point and ... I'm paranoid that by waiting too long, I won't be able to have one".

Dee perceived the sequencing of life course events as an attractive way to manage the investment in her career with future projections of motherhood. Her choice to work intensely now was manifest in projected thoughts about the management of her work and family roles after having a child clearly bounded by time:

> It’s a good place in my life, for it [work] to be number one and the most of it and get as far as I can now (yeah). And, and then I can go off and have, I would have got to where I wanted to get, do you know what I mean? And sort of um be in a comfortable place that I can go and have babies and feel confident that I can get back into the workforce and all that sort of thing.

Dee’s attitude to work and the building of skills and an experience base was a key focus of her life at the time of both interviews. Her investment in skill development was deemed critical for her to meet now to increase her likelihood of making a smooth entry back into employment after starting a family. Yet, Dee was aware that the pursuit of only one aspect of life – through work - particularly now with its focus on work, had come at some expense to her health.

**The Impact of Work on the Non-Work Domain**

Although Dee had committed to a focus on work at the demise of social/personal interests, her work was having an adverse impact on her overall health. Work had currently appeared to consume her life to the extent that there was very limited time to recover. It led to feelings of exhaustion, an obsession to make a sale, and neglect for simple daily activities, such as the washing:

> I’m sort of half here at the moment (mmm) just worn out. I need to get this out of the way [a sale] so I can have a week off to catch up (respondent laughs). Like I haven’t even done my washing and stuff ... I had to wear these shoes and I don’t have any
socks on because I haven’t got any socks left and things like that. I’m just so behind on everything because everything’s just gone out the window, you know, house work, or social life you know family and everything because work has just taken over at this point because I just don’t have time for anything else at this moment (yep). Ahhh!

The urgency to secure a sale was the sole focus of her work and was clearly driving an intense work agenda:

Well I want that success (yeah), I want that deal so that in a way is driving me to behave in such a way as working ridiculous hours and being intense about my work.

The success of making a sale was compounded by a multitude of aspects that were further fuelling an intense work agenda for success.

There was a realisation that sequencing life events had led to a void in her life, particularly her interest to travel, and Dee raised the question, “when are you going to do me?” While the disciplined sequencing of events was considered perhaps a mature decision to secure her employability in the future this question suggested that it was not all that personally fulfilling. Although motherhood was scheduled against her timeline there was a sense that work could not be reconciled with the other things that Dee wanted from life, such as traveling.

**Intended Career Trajectory**

Although Dee had intended for work to be her current focus the consistent peaks of intense work were not part of the plan: “work has become number one, I’ve left everything behind (yeah) but that’s definitely not the long term plan.” The peaks of intense work were certainly not welcomed for long periods of time and indicated the temporary nature of intense work. While the drive for sales could potentially have evolved into a current obsession for Dee, she and her partner were aware that the pursuit of sales was far too damaging to sustain for long periods of time:
I keep saying and [my partner] says, this better stop, when you get that sale, if this continues going on then you know ... there’s that risk that if you get the first sale it’s like, ‘Ok I need to get the second one because that really proves my first one, that my first one wasn’t just luck of whatever’ (yeah). And I think I have to do that, ‘ok, you got it Dee’ you know, don’t let this go on, past because mentally and health wise I’m sure this is how people end up with cancer and things like that (yep). It’s living this kind of life for an extended period of time and I’m not, even though I’m living it now, I don’t want that.

Views of Life
A key theme throughout the interviews with Dee was the notion of an idealised view of life. There was a tension between the life that she was currently living and had intended to live, with an emerging perspective of an alternative way of living. Her current, sequenced pathway was reflected upon frequently by Dee as perhaps flawed, “I’ve got it all wrong to a point.” While this pathway had already resulted in some voids for Dee, there was a lack of clarity about how she could achieve everything that she intended. She could see that currently there was an element of toxicity in her life and that the attraction to an alternative life removed much of what she was currently experiencing:

I want to live the good life, meaning you know, a lot, you know, living it up I guess in a way, you know, having a really nice house, having a great house, little kids, and all my friends, you know a big group of friends regularly coming over, like a very social sort of house (yep). Um, and you know, going and doing a lot of travel and seeing the world, sort of doing having a time in there living an alternative life, as well. Like, how I’ve got it at the moment, working the way I’m working I’ve just got it all wrong to a point, even though I am doing it and want to do it for now. Like, I want to at some point, live the different life, go and live somewhere that’s remote. Yeah so I sort of envisage that happening later in life, like just getting out of this whole society for a while and testing out another one. Yeah, I don’t know how that’s going to happen I haven’t worked that one out, that one’s coming later (laughing). You know the whole image of going and living, you know eating really healthy food, and away from pollution just living a different life.
Whether or not these notions of the ideal life were the outcomes of excitable youth and the quest to ‘have it all’, Dee could not reconcile these two, somewhat, polarised views of life. Perhaps it was the rigidity of the sequenced model of life with its focus on work that provided limited time for planning, as Dee suggested in the following quote:

*I know that there’s more after this, but I guess I’m just so focused now in terms of my career, so focused on it now with my career that I haven’t, once I’ve sort of settled into this and I’m doing it pretty good it will be like, ‘what’s next kind of thing?’*
Harris’ Story

Storyline

Harris was married and in his early 30s. He and his wife were renovating their home at the time of the first interview and were ready to start a family.

An interest in computers as a young boy was the impetus for Harris to complete a double degree in engineering and computer science at university. Completing a placement with an IT company in his final year of study, Harris was employed in his first job after finishing his university exams in the late ‘90s. From working in a small IT consulting company he moved to a firm that developed statistical analysis software and then left for work in London, which funded his travel around Europe for nearly two years.

Harris returned from London at the end of 2001 and worked for three other IT companies before taking up employment at Company A. For Harris, the mobility across positions was largely driven by his necessity to pursue challenging work that provided a sense of achievement. Underlying the challenging work, Harris sought to develop and consolidate his skill base to avoid the potential boredom of daily work:

I’ve got some pretty set ideas of what I’m capable of and what I want to achieve. It’s not so much about, you know, earning a particular salary or being at a particular level or job title, it’s more about feeling that I’m making use of the skills that I’ve learnt over the years and that’s the reason I left my first job and that’s the reason I left my last job, I felt those skills just weren’t being used and I was just able to coast through the job and was a bit bored, day-to-day.

Employed as a senior software engineer, Harris had more recently engaged in business development tasks at Company A, etching a pathway to roles in business development away from a pure, IT technical role. He felt rewarded with the opportunities afforded to him and saw them as a way of broadening and somewhat optimising his career prospects:
The guys that run the company ... have given me a really good opportunity to get involved with all aspects of the business so I’m not pigeonholed in being a programmer. In fact, I spend very little of my time actually programming. Um, I basically get involved in just about every aspect of running the business from going out and talking to new clients and writing up proposals to helping you know, solve problems when the client’s system crash and things like that to even, you know, speculative business development work.

There had been considerable change to Harris' position at Company A and his thoughts and esteem about his role changed in the 14 months that passed between interviews. At the time of the second interview, Company A had been acquired by a larger firm some eight months earlier and Harris was feeling “isolated and lonely” in his job. Still working without a job title, he was frustrated that the new members of the company were not aware of him or his role which he felt could potentially jeopardise his future career.

The Experience of Intense Work in the Organisation
Harris' intense work experience was largely shaped by the organisational structures of IT work. Harris' personal pursuit of challenging work to build his skill and experience base, and progress his career also affected his experience of intense work. Underpinning these sources of intense work was Harris' need for control of his work environment and his career trajectory which often impacted on his stress levels.

Organisational Structures of Intense Work
The organisational structures of work in the firm included the volume and expectations of quality work, team work, and chargeable hours. All of these factors shaped Harris' experience of intense work.
Volume and Quality of Work

It could be seen from the first interview that quality outcomes were a key aspect of Harris’ work. The success of Company A was largely based on the calibre and skill level of their people and Harris’ career decisions had been somewhat shaped by his emphasis on the ability to produce quality work over long working hours:

*I’ve made some conscious decisions in the type of company I pursue jobs with because I don’t like working ridiculous hour weeks and I don’t like the mentality of the company comes first and your life comes second ... And that’s why I prefer to go for smaller companies that can recognise more the quality of the work you do rather than the quantity of it*.

The completion of work tasks to a certain standard of excellence was largely dependent on the volume of his workload and the nature of work to be completed. Prior to Company A’s acquisition, Harris reported feeling some intensity to complete work tasks of a high quality within the time limits. Yet, more recently, high quality work had been compromised by the volume of work to be done. Harris explained:

*... the intensity was getting the particular job on your plate done to the level of excellence required in the time available, whereas the nature of the type of work I do these days is I’ve got more work on my plate than I can possibly do um, especially if I want to get it all done to the level of excellence I usually would, so I often have to do some jobs to a lesser level than I would normally do. You know, do the minimum that’s required to just get a job off my plate. Some jobs just don’t get done at all. Um, other ones I still do at that level of excellence, but as a result it means that more things drop off.*

Achieving multiple tasks or having an increased workload presented a problem for Harris, as a high performance individual he could not preserve his esteem through the completion of all tasks to a high standard of excellence. The more time spent on producing work of a high standard meant that fewer tasks could be completed. The alternative was to compromise Harris’ own standards of quality and complete all tasks to a sub-standard. Either way, he faced potential criticism from his colleagues and superiors for either not working fast enough or producing work of poor quality.
The Paradox of Working in Teams

Work teams were a key structure of performing work in Company A. Given this structure, an individual's work outcomes were dependent on the capacities and competencies of their colleagues who, up until the firm's acquisition, were highly skilled and focused on getting the job done. A corollary of working in a high performance workplace was high expectations for success which created another layer of intensity to maintain standards. Harris described:

... we've moved less from individuals in silos that sit at their desk and do their thing to more team-based work (yeah) where individuals are highly dependent upon each other for their working outcome, so people feel a lot of sort of group pressure to get results and work hard, because if they don't then it becomes obvious to the other team members. And at the same time, there's an overall I guess intensity – maybe it's our environment also where we hire really good people and really driven people, that you get a lot of um, you know, inherent drive that if I don't keep up, I'll get left behind.

Recognised at management level prior to the firm's acquisition, Harris felt a need to further reinforce the high performance environment and to set an example to others that he was a hard worker. He explained it this way:

you sort of walk around and think those guys over there that I'm managing and having to push for that deadline, they're working hard, I really should go find myself something to work hard on.

Being seen as a hard worker earned Harris respect from his followers and re-affirmed his role as their leader. Harris felt that failure to be seen as a hard working leader could potentially undermine his career aspirations and the investment of his mentors' time and efforts.

Chargeable Hours

Chargeable hours created clear pressures for the management of an individual's working time. In Harris' own words:
one of the problems in the consulting area is that you get charged out on time and material, so there's got to be a justification for every hour you spend on your job, um, so there's that sort of constant pressure.

The shift of focus to business development work meant that Harris worked few chargeable hours and, therefore, was relieved of some of the pressures associated with meeting a quota of billable hours. However, this lack of structure seemed to be a source of anxiety for Harris who, in the past, used chargeable hours to assess or validate his value to the firm: "It's a little difficult in that you can't directly relate yourself to, you know, I'm bringing in this money into the company".

Perception of Upskilling

Harris' perception of upskilling or skill development was contrary to the other participants of this study. Rather than persistently aiming or attempting to keep abreast with the learning of current skills, Harris' view was to be aware of new developments in the industry and then, acquire and apply new skills when the problem presented. Harris' view of upskilling in the sector applied to workers who were aware of the fundamentals of IT systems and the principles of learning responsive to immediate problems:

You can always learn new skills and new technologies as needed for particular job if you're the type of person that understands the fundamentals of IT systems. Some people -- and there's a hell of a lot of them in this industry don't really get it at a fundamental level. They're the ones that are constantly stressed trying to train themselves up with the latest buzz words, to get the latest salary ... I think it's much more important to be a good problem solver and be the sort of person that understands technology and can understand what parts of it need to be applied where and where you need to concentrate learning new information for a particular project and a particular job. But in my experience the fundamentals never change. So if you've got a good understanding of those fundamentals, I wouldn't stress about not having the latest skills, X, Y or Z.

Furthermore, his lack of stress about learning was attributed to availability of time in the evening to learn, if it was required: "I tend not to stress too much about have I got the latest..."
skills while I’ve got spare time in the evenings.” This comment further supports the difficulties that upskilling presents for individuals who are impacted by pervasive work practices and those with responsibilities and commitments in their non-work domains. It is worth emphasising that Harris’ transition from a pure IT role to business development could influence his view of upskilling as these latter skills were acquired from experience, his mentors and current MBA studies.

The Pursuit and Paradox of Challenging Work
The pursuit of challenging work was a key requirement of Harris’ work. The frequency of his job mobility in the past was fuelled by a desire to find challenging work. Challenging work enabled the development and consolidation of skills which provided a sense of achievement and avoidance of boredom. At the time of the second interview, Harris was particular about the types of challenges he welcomed, which were mostly projects where he could have maximum influence of the outcome:

The challenges I like are those where I’ve got a lot of influence over the outcome … greenfields projects, which is where you’re creating a new project from scratch, and you haven’t got any sort of um limitations on you in terms of existing code (yep), existing people on that project to deal with, they’re great fun. I love those sorts of challenges, um where there’s a chance to just get on a whiteboard and create something from scratch, and then take it through to completion. They’re the sort of challenges I really enjoy. Um, the challenges I don’t enjoy as much is where um: I’ve got less influence in the outcome. For example, consulting style engagements where there’s a project in trouble, there’s 30 people working on it, it’s not even my staff (yep), and I’ve been sold as an expert resource to go in and help sort things out, and there’s only certain things I can fix, and there’s some things I can’t (yep). I look at the way the project’s been managed and it’s a complete disaster, and I’ve got no ability to influence that. Um, people are working, you know, 15 hour days, it’s a death march project … I don’t want to be a part of that, especially if I can’t influence its outcome.

Projects that were beyond Harris’ scope of influence, like the incident above, were associated with a level of discomfort. Harris acknowledged a raft of issues beyond his
is the scope of influence that resulted in an uncomfortable environment. Such issues included meeting the demands of the client, working with unknown competencies and skills of staff, the pressures of maintaining his role as expert on a problem project, and a problematic project plan. This type of work environment was the source of much anxiety and stress which Harris tried to avoid. However, Harris could see that his aversion to such work environments could compromise his career intentions. Harris was viewed to be a key person his mentors could call upon to mend these types of projects. His pursuit of selective challenging projects presented a contradiction in Harris’ story. While he was seeking to build his experience bank and to learn from his mentors, he was only willing to work in select environments where he had an influence. The desire to have influence perhaps was an indication of his need for control.

**Job Control and Loss of Influence**

Control was at the core of Harris’ experience of work and career, and subsequent feelings of stress and worry. He admitted a strong need for control of his work environment:

> I think it’s a personality thing. I think um [pause] I’m one of these people I feel a need to be in control of my environment, and if there’s um [pause] things in my environment that are negative I think, ‘well is there’s anything I can do about that?’

The recent acquisition of the firm had had a considerable impact on Harris, his position of influence in the firm and overall, his career aspirations. In the second interview, Harris spoke of one incident where he was greatly stressed, taking on his colleagues projections of stress. Recognising that he once was in a position of influence at Company A, Harris realised that perhaps he no longer had this authority in the new firm:

> I was really – last week I was quite stressed. I had a lot of trouble sleeping last night. I was stressed about all these problems, and I could see a couple, my work colleagues were stressed on their project and that was stressing me out. And I remember chatting to my father, and he said, ‘Is it your job to be stressed about these things?’ I said, ‘That’s a good question, I’m not sure if it is’ … I guess I take those burdens upon myself, because you know, I enjoyed that about Company A, as … I could help shape
and influence, and um [pause] help evolve. Whereas in [the new firm] I guess I have to learn to take a step back and say some of these problems aren’t my problems.

It was difficult to ascertain whether his stress was from the projected stress from his colleagues or if it was perhaps an outcome of low self-esteem emanating from threats to his career intentions. Harris described feeling somewhat isolated and lonely. His mentors were more mobile than before, travelling to different sites of the company and adjusting to their new roles. While Harris was “looking for experience and very much um being around mentor style people who [he could] learn a lot from,” this was no longer possible in the new firm. To compound his situation, the absence of an explicit job title in the firm meant that Harris was worried about how his role was perceived by others in the firm and he expressed some difficulties gaining authorisation from his colleagues to act. He described how he felt:

I guess I sort of worry more about um – there’s a lot of people in this company that I haven’t met, that I only sort of converse with over email, and a lot of them at levels higher than me, how they view me, where they think I sit relative to things, whereas before it was easy to quantify where I stood, and here it’s a lot harder to quantify where it all is. So it’s, it’s, there’s a lot of uncertainty around it.

The Interaction of Trajectories and the Experience of Intense Work
Harris’ experience of intense work was also shaped by other feelings of stress and anxiety which he found difficult to ascribe to either work or his non-work domains. The advent of remote technologies tended to blend the physical boundaries of the work/life interface and enable Harris to work from home. Also, his career aspirations and his age graded view of accomplishments (which are explained shortly) were also driving Harris’ intense work agenda.

The Work/Life Interface
The stress and anxiety in Harris’ life was difficult to attribute to work or his personal life: “I had a lot of things happening in my personal life that it was hard to separate the two and
figure out which one was really causing which, um.”  Harris confessed to work having a higher than usual priority in his life because of the difficulties that he and his wife were experiencing trying to conceive as the following comment illustrates:

My wife and I have been going through IVF over the last few years (yep), which [it] puts a large part of your personal life on hold, and you know, you’re not really doing a great deal with your personal life, you’re waiting to start a family (yep), which leaves a bit of a void in your life, which you try to fill with other things. With me, it’s work (yep). So um, I try to fill in more of my life with work to make up for, you know, a lack of purpose in other areas of my life.

Harris’ behaviour and investment in his work acted as a form of compensation model, where involvement in one domain is increased to find satisfaction which is absent in another domain (Scholarios & Marks 2004). It was an attempt to maintain a sense of purpose, achievement and self-esteem. However, his application to work resulted in persistent episodes of excessive work leading to severe negative health consequences. In his words:

Well it has actually become a problem in the past, and I’ve gotten to stages where I’ve become um over stressed, over anxious, suffered from a couple of bouts of depression last year, had to take a bit of time off work, see a doctor about it, and it forced me to sort of um take stock and realise that what I was doing was throwing myself into work to try and make up for this other void in my life (yeah). In some regards I was burning myself out a bit, and had to learn to take the foot off the gas a bit.

The accessibility of technology masked the physical boundaries between work and non-work domains enabling access to work tasks in Harris’ personal time. Technological advancements, such as wireless Internet connections, made working from home more accessible, and, therefore, the take up of working in his non-work domain was high. Harris explained:

Um, there’s not much of a hard divide ... it’s not like you know, I finish work and that’s it, work’s behind me and now it’s you know, friends and family and you know, going out and having fun ... my personal needs are sort of being involved in work more than
is necessary to fill the gaps, but also I think there's been a number of technological changes that have made it easier to not leave work behind. Um, I go home and I've got wireless at home and I've got a laptop, and so I'm sitting there and there's nothing on TV, and I think I'll just check my email, ah there's a couple of emails, play with that email (yep). So it's easy to um, not leave work behind.

While the “void” in his personal life precipitated more focus on work than usual, Harris indicated some degree of disappointment not being able to enjoy his non-work domain. The conduct of work in his personal domain perhaps avoided his thinking and feelings of childlessness that could potentially be heavily associated with being in the home.

**The Influence of Career Aspirations on the Intense Work Experience**

In addition to the facets of work that present as sources of intense work, Harris’ career ambitions and aspirations had further impacted on his intense work experience. Underlying Harris’ career intentions was an age graded view of accomplishment and his ambitious perceptions of where he should be at certain ages, with respect to his career trajectory. These views influenced his exposure to different sources of intense work, in particular, the scale and scope of challenging work, as captured in the comment below:

*So I've sort of got to weigh those two up, you know, the impatience of wanting newer, bigger and better challenges with, 'well wait up, let's take stock, I'm you know, only [in my early 30s], I'm probably a lot further in my career than I wanted to be at this stage, um, you know, probably no reason to be unhappy with where I'm at, let's just consolidate that a bit more and become a bit more um bedded down in that before worrying about what's the next big challenge’.*

In addition to his own expectations of career, Harris was also heavily influenced by the view of his parents. Their perception of career progression and focus in the non-work domain was inextricably linked to age graded career accomplishments. Early career positions, in one’s 30s, was a prime time for investing and progressing one’s career - often
a time for hard work. Individuals in their 40s and 50s, however, were perceived to more likely be distracted by other facets of life and less interested in career accomplishment:

*I remember the last few years I was sort of being unhappy with the various jobs I've and I've often thought, 'Jesus, is there something wrong with me, always wanting a different job. Maybe this is just what the industry is like'. I spoke it over with my parents, and they sort of said, 'look, you know when you’re in your thirties you don’t want a job where you’re just cruising. That’s something you can do when you’re in your forties and fifties’ in their opinion. They said 'you get to your fifties, and you've worked hard all your life and you want to start - - you’re less worried about career accomplishments and start to look at other things in life and as long as the job pays you at the end of the day and allows you to live a particular lifestyle, you’re happy with it. But in your thirties you’re sort of a bit more driven and a bit more interested in taking on a variety of challenges’. If that’s true, I don’t know, because I haven’t reached that age yet, but if that is true then I would say people, if they got to sort of fifty and were more interested in a job where they could just come in at nine and go home at five and concentrate on what they’re doing with the grandkids at the weekend, this probably isn’t the job for them. This is a very, I’d say, high energy job.

This view of associating career progression with age was fuelling Harris’ career ambitions and coincidently shaping his experience of intense work and career trajectory. The transition from IT to business development was a calculated move to broaden his career opportunities but also to avoid the intense work practices that IT consultants were likely to experience (e.g. billable hours, upskilling). A consulting pure IT role was perceived to be a difficult career to sustain because of the pressures experienced from accruing chargeable hours, meeting project timelines and the demands of working within teams:

*I mean that’s one of the reasons I do things, like do an MBA and look at career changes and you know, changing my role, because - doing that type of job [pure IT role] - I don’t think is sustainable over a long period of time (ok), and when the opportunities present to actually um progress your career, it’s probably best to take them rather than go, ‘I can worry about that when I’m in my late 30s’.*
**Intended Career Trajectory**

Harris’ perceived lack of authority, loss of mentors and limited opportunities to build business development skills and experiences as a result of the firm’s recent acquisition had led to some re-consideration of his career. While acknowledging that he could continue to develop and refine his people skills, Harris’ inherent need was to lose the sense of isolation and loneliness. He hoped that working in a team would address his feelings of isolation, as illustrated in the next quote:

... maybe I could shift my job sideways to try something different for a while, and maybe get myself out of that, those concerns I’ve got at the moment ... I might put my hand up to be a tech lead on that project (yeah), which will still allow me to sort of utilise my skills and um provide mentoring skills to that team, but at the same time allow me to be a part of an identified team rather than you know, being outside of any team or group.

In the long term, Harris intended to either have his own business or be working at an executive level. His journey to one of these roles was tightly attached to Harris’ need for control and influence, and career accomplishment:

I’d ideally like to be sort of involved in running my own business by then, doing – if not running my business, helping to run someone else’s. I just sort of – it’s a natural progression of that sort of need to control, you know, as I sort of progress my career I think as you get involved in different levels, and eventually get involved in an executive level, um, it’s like all things, you think - ‘I think I can do this’.
Nina’s Story

Storyline
Nina was a senior software engineer with Company A and came to Australia as a refugee in the early ‘80s. Arriving with poor English, Nina spent one year studying English and then moved from adult education to a computer science course at university. She was married to an IT worker and had two children under 10 years of age. Nina was in her early 40s.

In the IT industry for a little over 15 years, Nina initially started working in Research and Development (R&D) with government organisations. The high cost of childcare coupled with pressure from friends and family who were making better money than Nina, prompted her shift to contract work in commercial business environments.

Nina was employed as a consultant with Company A where she had been for 18 months at the time of the second interview. At the time of this interview, Nina had been contracted by a larger, external IT firm to work with a third party client. She had been working for this specific client for two months and intended to be there for another four months.

At the time of our first interview Nina had negotiated to reduce her working hours to a four day week to provide her with more time for life outside of work. Nina transitioned to working only four days a week but after eight months she returned to full time working status, which at the time of the second interview, she had been doing for eight months. This decision to return to work five days a week was a “desperate” attempt to move away from receiving one day projects - which she often found stressful - to securing long term projects of one month or more in duration. This decision was further compounded with the demands of clients. Securing a one month project required Nina to work full time to meet the client's tight schedule and, therefore, removed the anxiety that she experienced securing longer term projects. For Nina, work was perceived to provide an identity: “you know, work is, how do I say it is like who, who I am ... like I say it proves who I am”.

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The Experience of Intense Work in the Organisation

The experience of intense work for Nina was affected by the structure of billable hours in the firm. The size and learning curve of client projects and the accrual of billable hours more specifically, affected her experience of intense work in the organisation. Finally, the demands of clients also contributed to Nina’s experience of intense work.

The Structure of Billable Hours

The structure of work in the firm set the standards for how work would be performed by employees. Company A deployed a model of billable hours where consultants conducted and charged work to clients at an hourly rate. The co-ordination of client work was facilitated by a project manager who allocated and distributed work to consultants. With requirements to accrue 40 billable hours a week, consultants worked a minimum of 40 hours per week. The capacity to bill 40 hours necessitated efficient and effective working styles to limit the likelihood of additional work for the consultant. The process of accruing billable hours presented considerable anxiety for Nina:

When I first came here, one thing that really bothered me is I have to be accountable for every hour ... in here, like, every hour we do a customer every hour, so I have to be accountable.

Project Size and Learning Curve

The size of the project which was quantified in terms of the time required to complete a project (length) had a considerable effect on Nina’s workload and her experience of intense work. The project timeline and its requirements were mostly “short term and really dynamic.” Given the short term nature of the firm's client projects, workers could either be working solely for one client or with multiple clients across different projects. Longer term projects were perceived to be more favourable than shorter length projects, as captured in the following comment:
Like if I got, if I got a client who’s had a long term work, when I say long term I mean a month of work, then it’s less stressful (yep). Because if I give estimate [pause] right and if my estimate’s short here and long here and I got a month to make this up. When my work start running short of work, the work come in, in one day blocks. So I have to give an estimate for the work that is say eight hours, if I blow out an estimate by two hours, that looks bad (yeah). And if also, if you’ve got small work like that the new work you always have a learning curve, so if I’ve got a month of work, usually at the beginning I have to spend extra time to learn and then I can relax out um, with one or two days work, you have to swallow the learning curve and swallow it up. So with the small job, I usually, if I can’t finish it, I have to come home and do extra and I can’t charge it ... With um programming stuff ... if you get stuck you can spend three days on just one problem and I have to swallow it up by doing extra.

Another critical aspect to Nina’s intense work experience was in relation to her skills and knowledge and the degree of learning required to complete work. The technical requirements of the project put considerable pressure on workers to acquire skills if they were not known and then complete the task in the given time period.

Compounding the learning curve for Nina was the size of the project and the time she had to complete it: “say I’ve got a one week project and something new and so the learning curve, it’s always stressful, have to learn new things really quickly.” Failure to achieve the outcome in the agreed time frame resulted in additional, non-billable hours of work that were, therefore, performed in Nina’s non-work time and not contributable to her quota of 40 hours.

The cause of stress for Nina and the experience of intense work were rooted in the processes of project planning and the estimation of time to complete projects. The practice of overestimating the time required to complete work was common and was a means of accommodating for any deviations from the time plan that could arise:
Like I know, to me, I usually do, if I estimate at one day I usually say two days (yep). Other people, they say that they multiple by three. So you always have generous time to do it.

Accrual of Billable Hours

Meeting a quota of billable hours was more than just the accrual of working hours. Hours of work did not clearly equate to work to be charged to clients. There was a requirement to provide clients with an outcome, result or solution in the estimated project timeframe. However, the complexities and dynamism of performing work was not always perceived to be productive. This raised questions for Nina about what is considered work or more specifically: what constitutes work that can be charged to clients?

The nature of knowledge work was not a linear process of working towards a desired goal. Nina described periods of her work where considerable time was spent on tasks that did not provide the desired outcome:

with the IT industry you know, you can hit the problem, you can sit there for about a week without producing any results, you can hit the problem not that you’re lazy but you might hit the road block and you’re just sitting there.

A quandary for Nina was the difficulty associated with accruing the number of chargeable hours against the number of hours she had worked on the project. Aware that clients could correlate billable hours with the progress towards a project outcome, Nina was cautious when billing work to clients. It was common for Nina to perform work for clients that was not allocated towards her quota of billable work:

For example, a client rings up and asks me a question. Um, I write, I go and investigate and write an email for half an hour, write an email. I do nothing for the client because there’s no result, come out in the end, I haven’t solved any problems haven’t done anything they just asked a question and I spent half an hour sending an email, now I have to bill somebody for that half an hour.
Her assessment of determining billable hours was often shaped by her current workload. When Nina was working busily charging 40 hours per week to clients she felt justified in asking her employers to “wear” additional hours of work that were not charged to clients. However, when she was not charging 40 hours per week, Nina often wore the extra work:

\[
\text{if I don’t produce any billable time, and sometime we do have the time because there’s not enough work so I, I don’t actually bill my time, then I don’t feel comfortable telling my boss, ‘no I don’t want to wear the time’ because my hours are not billable.}
\]

This presents an additional problem for Nina, a type of double jeopardy. Requests for the employer to fund hours of work that were not attached to a direct income stream for the firm could perhaps be difficult to justify. Furthermore, it could also be seen as a reflection of Nina’s inefficient management of performance and, therefore, inhibit her from raising it with management.

**Client Demands**

The demands of clients had a critical effect on Nina’s experience of work and influenced her decision to reduce work from four to five days a week. Meeting a quota of 40 hours per week was easier to achieve with long term projects than smaller projects and was more efficient use of her time considering the learning curve and difficulties with estimations:

\[
\text{I find it quite stressful because for every hour my hours have to be billable (yeah) ... So, like I say if a client’s got a big job, I bill them eight hours, eight hours, every day, that’s fine. When I start running out of work I bill this client one hour, another client two hours, another client three hours and that’s very stressful.}
\]

The security of billing eight hour days to one client for a one month project removed the stress and anxieties associated with accruing 40 billable hours per week when working on shorter project cycles.

In addition to the complexities associated with accruing a sum of billable hours, there was a separate set of constraints that Nina experienced. These constraints were reported as
aspects that were external to her control and accountability. Clients often changed specification requirements in projects. Although this could be a source of frustration for Nina as, it created more work for her, she did not perceive it as a key source of intense work if, she was paid for the additional work and they were seen as chargeable hours. Similarly, some projects had ambitious deadlines but they were not viewed to be problematic if the extra work she performed was billable and if she had discretion to choose when she would work the extra hours. Hence, working extra hours were not perceived to contribute to intense work if the following conditions were met: the hours were billable; Nina had discretion over working the extra hours; and flexibility to choose when to perform the extra work (that had to be done over the weekend because of her tight daily schedule).

The Interaction of Trajectories and the Experience of Intense Work

Work was often not neatly bound for Nina and it often encroached on the work/life interface. This was frequently experienced when upskilling which was deemed critical for her employability. Nina’s ability to meet the demands of her work and non-work roles were exacerbated by peripheral work constraints, such as the commute time to work from home. The structure of using time in lieu created flexibility to more effectively manage work and family roles.

Learning for Employment

Describing periods in her life where she had worked in non-work time to upskill was something that Nina was not likely to continue across her working life: “I’m just thinking naturally, you know, as you age, my knowledge isn’t as sharp as the younger one.” Whilst ageing was perceived to make it difficult to maintain learning of skills across the working life, Nina’s upgrading was constrained by the demands of being a mother:

I have to say, you know, like, women after you get married, you got kid and stuff like that, it does get in the way of your career... In IT, the technology changes very much, so you know, you have to keep up-to-date all the time, basically.
The time required to upskill externally to the workplace encroached on Nina’s non-work time and presented a challenge in managing the roles of a mother and computer programmer. The following excerpt captured the experience of managing childcare responsibilities with the pursuit of formal qualifications.

Yep, outside working hours, so like ten o’clock my kid goes to bed and then I make myself like study like forty page a day, twenty page a day, two hours and I bought a book -seven hundred pages- and divided it up.

Nina’s situation of learning was perceived to be facilitated by her husband’s employment in the industry which meant that he could provide her with learning materials and set a direction for her learning. His role was perceived to be paramount to her competitive employment in the industry as it saved her considerable time:

My husband, he keeps pretty up-to-date. He informed me as well, I mean, if I marry say a non IT person I would be home, basically because I have to look after my kid. I can’t afford to sit on the Internet and searching and find something interesting and then spend say half a day reading a book. My husband if he finds something interesting he can, you know he can read half a book.

The Interaction of Family Demands on Employability

Although Nina had managed to gain some formal qualifications in her non-work time the busy-ness of this domain of her life (non-work domain) was perceived to compromise her ability to learn in the non-work domain. Nina could see the demands of upskilling as having a detrimental effect to her employability:

There’s new things to learn all the time and I don’t learn. Like if people throw things at me and say, ‘Nina, this is new technology’ then I go and learn it and use it, I learn it at work. Other people they actually go and do more research, so I, I will not be like the one who introduce a new technology to work ‘cause I’m not doing the research of the work (yep).
In the second interview, it was revealed that learning in the non-work domain had ceased altogether:

*I’m always conscious of the fact that I don’t go out of my natural work and explore, I mean exploring and I try and keep up to that so I always try to explore a bit. But now when I’ve got kids I just say, ‘Stuff it, I don’t care’ (laughs).*

While it was clear that a lack of learning and awareness of new developments in the sector had impacted on Nina’s self-esteem in the workplace and potentially her overall employability, it was cast aside in favour of raising her children. With the caring for her children as a main priority, the challenges of upskilling and being aware of new advancements were not possible to sustain in her current working life.

**Peripheral Constraints of Work**

Nina had a tightly regimented schedule consisting of work and non-work tasks, including the train commute to and from work, dropping the children off at school, tending to their needs at home and her own work commitments that might have carried through the day to evening work. Central to the rigidity of her schedule of managing the multitude of roles in her life was the structure of her employment status – the working of billable hours.

Impacting on her ability to meet the demands of her work and non-work roles were the peripheral constraints of her work such as the location of clients. While the Central Business District (CBD) was central to her home Nina often had to travel to the offices of clients which could be scattered around the city. The specific location of a given client impacted on the time taken to get to and from work and subsequently affected her rigid and tightly regimented schedule.

More recently Nina had been outsourced to a client in the city. The central location and a policy of 7.5 hour working days had maximised Nina’s use of time and saved her an hour and a half each day. The tight meshing of activities were timed down to the minute and required travel to and from work on connecting trains which was tied in with the school drop off times for her children:
like before I try to catch the 8.42 train which was quite stressful because I had to drop my kid off at 8.30 and always run for the train to come to work. Now because my hours have been cut, I've been relaxed so I catch the later train, so I get to work at 9.20am so 7.5 hours, so at 5 o'clock I can knock off.

The Use of Time in Lieu to Create Opportunities for Family

It was evident in Nina’s case that the concept of time underlined her experience of intense work. The use of time to manage the demands of work and family was critical for the family, particularly with her husband working full time in the industry: “The same for my husband. Like with work, he work like crazy and he take time off in lieu [rather than extra pay] because we really short in time”.

For an individual with multiple roles, and heavily governed by time, the removal of one day of work did not alleviate nor remove the stressors that she experienced from work. In Nina’s second interview she conceded that working four days per week “didn't give [her] much actual time anyway (laughing).” Her daily schedule was a succinct meshing of multiple tasks from work and personal domains that were more likely to prosper from alleviating time constraints as opposed to gaining one entire day free from work each week.

At Company A, the work of extra billable hours could either be banked as time in lieu, enabling Nina to take time off at another time, or could be paid to employees at a lower hourly rate of pay. The former option was most preferred as time for non-work activities was perceived to merit a greater return than the pay. The banking of additional hours provided some flexibility of time that ultimately did not impact on her pay, that is, using time to attend her children’s school events did not incur a deduction of pay.

Without prompting, Nina volunteered how she tried to reconcile the demands of work with the care of her children. Her system of working overtime (to accrue billable hours) was sometimes performed on weekends when her children were in the care of her
husband but mostly during school holidays when her children were with her mother. Nina explained:

In every time I do overtime, yeah, because I got two kids, so I try to cut down.

[Laughing] So I do. Like in some weeks I do more hours and then I cut down in the other weeks. If my children have a school holiday, for example, usually my children go to my mum, during school holiday, then I go to work early and I pack in an extra hour and then during the school term if I have to take my kid to the doctors or stuff like that, I use my time in lieu to compensate for that.

The flexibility of ‘banking’ time clearly facilitated the interplay between Nina’s work and meeting the demands of childcare to manage these multiple roles in her life. Furthermore, the achievement of these roles was facilitated with the support of her mother as a carer of her children.

**Intended Career Trajectory**

Feeling content with her current outsourced arrangement Nina’s decision to look for alternative employment was shaped largely by a need to alleviate the pressure she experienced as a consultant working within a structure of billable hours and subsequently, the constraints she experienced ensuring that she could meet her daily, tightly bound schedule. There was a preference for permanent work at a large corporate firm which although it meant less money than she received in a contracting role, it was perceived to provide some scope for flexibility. There was also the perception that a large corporate could offer the initiative of teleworking which was also favourable with the caring for her children. Nina also identified the location of the firm as being highly desirable as it could reduce the time required in transit and would enable her to better manage the streamlined scheduling of work and non-work tasks that she had in her life:
If I move to another it has to be better than my current job (yeah). So it has to be in the city, it has to be a big corporate company (yep) there working is probably more relaxed ... I don’t have to prove myself. Like um, their workloads are less ... they give me work but I can do it a longer period of time (yeah). It’s probably less challenging for me but I’m thinking of more my kids, you know. I work in the city I can go home a bit earlier and stuff like that (yep). Um, I can work from home, like my sister, she work for IBM Global Service. When she have kids she can work, two or three days from home, which is fantastic.

Ongoing employment also eliminated the process of interviews which was common with contracting work. For many contract projects the third party employer would interview prospective workers to the project. This caused some anxiety for Nina as she perceived her language skills to be poor which could potentially affect her likelihood of deployment on the project.

**The Interaction of Intense Work and Ageing**

Negative experiences working with older workers and the feelings of exhaustion and stress combining the roles of worker and mother had shaped her thinking about her capabilities as an older worker. Currently, Nina had little time to learn and upskill in her non-work time which was seen to limit her employability somewhat. Her negative experiences working with older people had manifest questions about her own ability and pace to learn new things, in light of her ageing, which was directly correlated with employability. Reflecting on her learning experiences across the life course, coupled with the demands of caring and raising her children led Nina to think that her technical career was perhaps limited as she did not have the time to be competitive. Nina commented:
...when I'm [was] at school I was pretty smart like top 5% in the class [pause] I start working from time to time, I’m still pretty proud of myself but from time to time I do work with some others who are much smarter than I am and I feel that I cannot catch up [pause] And that feeling, I don’t have that feeling when I was much younger. Maybe when I was younger before I got children if I got somebody who was better than me I spend more time to catch up. Now if I’ve got somebody who’s better than me than I just say that’s the way my life will be because I don’t have time to do extra work to try and catch up.

A consistent theme throughout Nina’s interviews was the notion that younger workers without family responsibilities were able to work longer hours, which was used as a measure of performance by one of Nina’s past employers. The key question for Nina was how long could she continue to work long hours in a dynamic industry that demanded upskilling to sustain one’s employability, with the responsibilities of caring for children and her perception of the potential slowing of learning abilities associated with ageing? Nina described how she felt:

The technology changes so fast. When I’m fifty, fifty-five years old, will I slow down? I can’t compete again with younger people. That’s the thing I’m scared of, so I say I love to stay in the industry but I don’t know how competitive I am?
Charles’ Story

Storyline
Charles was in his mid-to-late 30s and was married to an ex-IT worker, who was a full time mother to their three children, who were of primary school age. While Charles appeared to be heavily constrained by time, he preferred to spend whatever personal time he had with his children or on recreational motor activities.

In the mid-'80s, after completing high school, Charles worked in an IT help desk position with a large Australian retailing firm. As an internal applicant, he was recruited to a 16 week trainee graduate programmer scheme which he successfully completed. From here, Charles predominantly worked in programming roles and spent some time in a training capacity, delivering courses to programmers. Often in the training role, he would be drawn into consulting opportunities where he would fill a lead IT architectural role.

In the late-'90s he completed a degree in Information Systems at the insistence of his mother, who placed great emphasis on formal education. Sometime after he acquired his tertiary qualifications, Charles resigned from his ongoing training position and on-the-side consulting projects to start up his own business - Company A.

During Charles’ first interview at the office of Company A, he described the frequent performance of long, irregular working hours over the course of his working life. Working these hours was fuelled by a desire to succeed at building his career and later, his business. Charles was re-interviewed 15 months after his first interview. Company A had been acquired some six months earlier by a larger IT firm and the acquisition of the firm had brought Charles many challenges and concerns.

From the two interviews it became clear that there was a shift in Charles’ experience of intense work. Charles’ will to succeed had been overshadowed by a perceived loss of
control that had resulted from the acquisition of his firm. Charles reported feeling "under siege" and an inability to cope with his daily tasks.

The Experience of Intense Work in the Organisation

Some aspects of Charles’ work were described as highly intense and often resulted in long hours. These tasks were performed without interruption in order to maintain his productivity. Charles derived pleasure and achievement from succeeding at work. The acquisition of his company brought Charles a multitude of problems that had a considerable impact on his life. Charles described his life as being “under siege” as his work was marred by issues of quality and the loss of control.

Long, Irregular Working Hours

Charles’ working life was characterised by periods of long and irregular hours of work which dated back to the start of his internship, 20 years earlier. Early in his career trajectory, Charles was keen to build his technical knowledge and skills bank. During his internship he would “put in at least forty hours a week after work learning how to program the new programming languages.” The performance of long work hours extended across Charles’ career trajectory. With the start-up of Company A, Charles’ investment of long working hours was purportedly driven by a need to build the company and, more recently, efforts to increase the share price of the new firm (in which he had many shares) was an underlying motivator of working long hours.

At the time of his first interview, Charles was not working long hours although his working life up to this point had been considerably characterised by excessive hours of work. Although the leaching of his work hours into his private time was driven by his personal agenda, it did have an impact on his life and the lives of others close to him. In his words:

In years past I would be home from work, computer on and I’d be in bed by maybe one or two o’clock in the morning and back to work the next day. And it would be like that all the time. I’ve had periods in my - we’ve had periods in my life where that’s all I’ve done. Friday night I’d be up until two o’clock in the morning. Wake up
at eight or nine o’clock the next day and it would be work all day Saturday, until really late, and the same thing the Sunday. I find these things happen for periods of time. You don’t do them 365 days of the year but you might do them for three or four months of continuous work.

Charles’ qualification from “I’ve” to “we’ve” shows the temporality of his life – indicating his movement across positions from his days as a young, single intern up to his current position as a father of three working in the company he founded. He acknowledged the tenet of linked lives – a core principle of the life course perspective - which dictates that lives are lived interdependently and that the relationships of individuals often influences their experience (Marshall & Mueller 2002). Charles recognised that his working hours had an impact not just on him, but on the other people that he shared his life with. The impact of Charles’ work trajectory on the lives of his family is discussed later in this case study.

**Intense Phases of Work – Concentration, Productivity and Efficiency**

In conjunction with working long hours, Charles described aspects of his work, such as phases of code development and the building of systems, which required fervent levels of concentration, often for months at a time. These phases of work were perceived to be best performed without interruptions that could potentially distract Charles from the core focus of the activity, hindering productivity and leading to a higher number of work hours. Performing in these phases had a pervasive impact on the time Charles spent with his wife as captured in the following comment:
And there's a very intense activity required in some of those phases. The really intense activity is when you're actually doing your design and you're coding and it is a really super intense intellectual activity. Quite often you'll have hundreds of facts that are in your mind that you're trying to deal with all at the same time, and you need to make all sorts of considerations about all sorts of different things. In my earlier days, we actually did some measurements, some metrics on how much an interruption would cost you and a telephone call of 30 seconds could cost you half an hour in productivity. So it would take you 29.5 minutes to recover back to where you were when the telephone called. So in my case, and certainly we've done it with one of the other staff, here, we find you can have these massive productive sessions when you can lock yourself in a room and you don't have to talk to anybody and you don't have to worry about email or any other interruptions and you can have - these sessions can go for 18 hours non-stop. You have to get up to go to the toilet or have a cup of coffee or some food but usually you'll do that, you know, you'll go back to the keyboard with a cup of coffee or your food or whatever and you'll keep going at it. And if you have to talk to anybody else, even so much as a short conversation - I mean, quite often my wife will come into my room, my office at home, and she'll have a conversation with me, and I'll answer a bunch of questions and I won't be able to recall the discussion at all. I've got no idea what went on and she thinks that she had a discussion with me and then you know a week later she'll tell me she told me about this thing and I'll have no recollection of it whatsoever because you're so focused on actually building this, coding up this system.

Efficiency was the driver behind structuring work this way in firms. The intense phases of working were perceived a more efficient means of structuring work using one person rather than four people as it removed the time required for and the processes of communication that would usually occur between multiple workers and provided a consistent solution that reflected the programming style of one person. Similarly there was a cost saving of perhaps eight-fold by having one person produce the solution. For Charles, completing the task was the sole focus of his life during these intense periods of work. The intensity of this experience was captured in Charles’ inability to recall or be consciously aware of what was going on around him. Basic daily activities, such as sleeping, eating and toileting, appeared to be the only activities that drew him away from
his work. His focus on the activity rendered him unconscious/unaware of what was happening around him, even with respect to conversations that he had with his wife.

Satisfaction and Achievement
While conceding that this intense style of working had had a major impact on Charles’ life and the lives of others close to him, he ascribed it largely to the building of his career and, more recently, to the investment in the organisation. In addition, Charles acknowledged the sense of achievement and satisfaction that provided underlying meaning to the intensive phases of his work:

In my case, when I’ve worked in these intense periods it’s been about building my career or it’s been about building the business … There is actually also, believe it or not, there’s actually a fair bit of pleasure in actually doing it. There’s a significant degree of achievement that you get by building these things. Writing software is a very creative, a very satisfying invention activity. If you like creating and inventing things, it’s very satisfying when you’ve actually built something and then you can show it to someone and they go ‘oh, ah, look at that, that’s fantastic’. You actually get a lot of personal pleasure out of doing it. And that pleasure can last for a long, long time.

Challenging Work
It was important for Charles to derive a sense of achievement and satisfaction from his work, yet there had to be a degree of challenge related to the task. Charles was an individual who was highly driven and ambitious. Success was equated with being challenged by his work:

I guess I need to be, it needs to be sort of challenging (yep). Um, intellectually to make it interesting otherwise I get bored (yep) and then I’ll [pause] I’ll probably get itchy feet and then want to do something else (yep).

It became clear in the second interview that Charles’ need to seek challenging work could sometimes result in intense work. Charles said: “it’s probably a little bit too interesting and too much variety and a bit too challenging at the moment (laughing) (yeah)”.
Perceptions of being “Under Siege”

Charles’ initial interview indicated frequent periods of working long, irregular hours and, at times, intense working. He derived satisfaction and pleasure from working this way and he deemed it necessary for the building of his career trajectory. The second interview with Charles revealed a somewhat different experience of his work. At this time, Charles’ firm of around 20 had recently been acquired by a larger organisation and Charles was now one of about 12 - 15 members on the Executive and also acting in a lead technical position.

Throughout the second interview Charles appeared exasperated by a multitude of problems, for which he felt obliged to help address. The shift of scale, “rather than having, being responsible for 20 people I’m now responsible for over 100. Um, so that now means that I’ve got a lot more, um, a lot more things to deal with than I had before,” was the root cause of Charles’ concerns. He described his life - not his work, the domain that the question pertained to, as being “under siege” tainted by issues of quality and the loss of control:

*Well, I use the word *siege*, I feel like I’m under siege. That’s how I feel about my, ah life now, I feel like I’m under siege. In Company A it was manageable (yep) there was a *stress* associated with, ‘oh god, where’s the next ah job going to come from? And where’s the money going to come from and are we going to be able to keep everybody busy and are they interested in the work they are doing?’ But there was no stress associated with the quality of the work. There was um, you know, not really a huge requirement for me to be involved in the actual technical work because I had a lot of confidence in the abilities of the people and we never screwed any job up, ever (yeah). We never did a bad job on anything we’ve ever done to moving to, and being able to manage and cope with the um, work coming my way. But now I feel like I’m very much under siege that there’s *far* too many things for me to do, um there’s far too much scope, um there’s too many people for me to deal with on a daily basis and I simply can’t keep up. And I feel like the quality of the work that I do suffers as a result (yep).*
The acquisition of the firm and its sheer size meant that it was more difficult for Charles to keep up with the number of tasks that needed to be done which affected the quality of outcomes and outputs. This was a considerable source of concern for Charles who marketed Company A as a high performance organisation with an outstanding quality service of work.

A compounding issue for Charles was that with the acquisition of the firm, he was now responsible for people and projects with whom he was not familiar. Further, he had inherited accompanying issues regarding process and efficiency. This appeared problematic to Charles who was previously running a seamless operation. It presented a conundrum: to either resolve issues with quality outcomes despite the constraint of time or compromise the quality of work and reduce the volume of tasks for completion. Traveling requirements created further anxieties and magnified Charles' heavily time constrained work agenda. Charles commented:
Yeah, one of the things I'm finding is that I've really had to spend so much time on internal things, um people issues, um quality issues, commercial issues about how we're doing things whether we're doing things efficiently or not. Um, we've got products that we've got, we've outsourced some work overseas and that's another thing that we've got to worry about. Um, there's um significant demands on resources, um we've got more projects and more work than we've got resources (ok). So there's a lot of work happening in recruitment at the moment, so there's just a lot of things actually happening (yep). I find it probably takes me a month, a month to get around to looking at all the things and then I feel terrible because I haven't um attended to all the other things that I probably should have attended to. Um, I've got people that I'm responsible for in different places um and I have to go around and visit them as well, so, I get tortured by communications. Um, um (in what aspect?) well, um email and telephone are the killers, um but um, if I go interstate or overseas for something, probably every two weeks I travel for a day or two, ah, um there will not be time to actually deal with emails or even the telephone sometimes (yep) because the whole day is filled up and I can get 150 emails in a day, and it's just a killer (respondent laughs). You know I could be spending a whole day and a weekend just trying to catch up on emails so I think um, um in the last three weeks I've got um 450 emails that I've just chosen not to deal with. It's, it's just too hard, um

The traveling time required to meet with employees over long distances and the loss of opportunity to use the phone or email because of air travel heavily constrained Charles' utilisation of time.

The Interaction of Trajectories and the Experience of Intense Work
Charles' application to his work meant that it frequently encroached on his non-work domain. The pervasiveness of his work had a considerable impact on Charles' life and on those closest to him. This was further illustrated with the demands Charles experienced learning new skills to be employable and the long, irregular hours of work. These elements of his intense work experience resulted in the building of boundaries around his work and non-work domains to relieve him of the stress and anxiety of his work.
Learning and its Demands on the Non-Work Domain

Learning and keeping abreast of technology advancements was a critical part of Charles’ career trajectory. Acknowledging that software had always been a hobby of his, Charles had also been motivated by his ambition to succeed and to invest considerable time in upskilling and learning:

... graduates were coming in ... and they were all getting paid about double what I was getting paid ... I didn’t actually think that they were that good; I was actually better than them, better than they were doing their job (mmm). And um that just, that just set me, made me push myself into proving how much better I was than them and ah, I used to work forty hours a week and I would then go home and spend fifty or sixty hours a week, um, I would work my whole weekend, every hour of every day, all I would do was teach myself new programming languages and those kinds of things. I was just really, really determined to prove that I could really, really do this stuff and that I was better than everybody else ... those early experiences in my life, made me determined to want to be successful at what I do.

Coupled with Charles’s determination to succeed, his interest in technology and computing was further fueled by a fear of skill stagnation which he equated with unemployment. Early in his career, Charles had worked with colleagues in their mid-forties who were not “interested in sort of continuing to better themselves.” Charles assumption was that “if you don’t keep learning you’ll find yourself without a job.” Current IT technical skill sets required a lot of personal commitment which inevitably encroached on individuals’ personal time:
Everybody talks about how it’s so hard to keep up with technology because it’s always changing and there’s always new things to learn. And it is impossible to keep up with everything ... the more hours you spend on it the better your chances are of keeping up with at least the changes in the areas in which you work with. So you can’t expect to do that by working forty hours a week. You will not keep up with technology if you only are doing it as a job. It’s got to be more than that or you will not be able to keep up with the learning that’s required. It’s a bit of an interesting dilemma, because in traditional working, you know, people relax after they’ve done their work, that’s the end of it, but in our game, you can’t do that. You’ll fall behind ...

Throughout the second interview Charles reflected on his waning interest in technology and computing. Admitting an enjoyment for “sitting down and cutting code and those kinds of things,” Charles conceded that he did not have the time to be “productive and very capable.” More recently, he felt that his ability to multi-task had declined which could be an outcome of the overwhelming number of tasks he was now responsible for. The combination of being time poor and having multiple priorities had reduced his tolerance towards learning technology as captured in the next quote:

So ... I think that perhaps um, the waning in technology is actually more about time and opportunity (yep). If, if I’m going to start doing technical stuff, then I only really want to do it if I can do a good job and I know that I don’t have enough time to do it so there’s no point in even beginning I don’t want to begin it unless there’s time to actually do it.

The Impact of Long, Work Hours on Charles and his Family

The depth of Charles’ intense work experience became clearer in his accounts of work related stress and poor health. A recent ‘stress day’ (a day of leave because he was too stressed to attend work), a first ever, precipitated the building of boundaries around his work and non-work domains as a means of managing the stress and worry that emanated from his work. Charles’ application to his work appeared to have consumed his life and rendered him mentally and physically incapacitated. He commented:
I just can’t cope if I’ve gotta keep doing work (yeah). I found my stress levels um, I actually had a stress day a couple of weeks ago (yep). Um, were just continuously working on Sundays for twelve hours, just trying to catch up on the, on the previous week’s work and um, I just found it caught up to me … there is no way that I can afford to work on weekends because I can’t cope with it (yeah). It’s ah, I need to have a couple of days rest where my mind can stop, stop worrying about it.

Feeling stressed, a loss of resilience and an inability to cope forced Charles to recognise that his application to and management of his work was not sustainable. The need to take a day of sick leave was a key turning point in Charles’ career trajectory. From this incident, Charles initiated a nutrition and health plan to assist in reducing his stress: “I recognised that I just can’t continue to deal with the amount of stress, I need to have some release from it.” Setting related targets to these activities, such as visiting the gym weekly, resulted in a key shift in his mind-set which he felt necessary to manage his work stresses. Charles explained:

... one of the things I've done, um did late last year to try and cope with the stress, 'cause I really was very, very stressed (yep) the last six months of last year, ah was to start on an exercise program and a nutrition program (yep). So, I've got myself a personal trainer and I'm um exercising quite a lot and I've actually decided to make that my number one priority, so nothing else is more important than doing my exercise. So if work has some commitment that gets in the way of my exercise it's, 'sorry I can't do it (wow) I've got to put my health, first'.

Prior to initiating the health plan, Charles felt that the stress was causing him to feel exhausted and tired when he would get home from work. The health plan had provided Charles with more energy, and had resulted in fewer hours of sleep and improved blood pressure.
Charles recognised that his working hours had an impact not just on him, but on the other people that he shared his life with. When asked how his work impacts on the other things in people's lives, Charles commented:

Yeah, well I mean, I've got three kids. Certainly when they were younger - I mean, my wife doesn't have a full-time job. Her full-time job is looking after the children and I could not have done what I've done without having her there to do that. I don't participate in many of the household sort of chores. I suppose that's a male thing as well. [Laughing] But I simply don't have the time, and then if there is time left over, I prefer to spend it with the children. So, you know, I always make a point of seeing them every day. And I always - we regularly do things every single weekend, but in years past that wasn't possible.

Charles acknowledged that he would not have been able to pursue his career working long, non-traditional working hours and care for three children without the assistance of his wife as primary care giver and home maker. He appeared to have a very traditional understanding of a nuclear family model, where the father is the breadwinner and the mother is the homemaker. Household chores were perceived to be gender based and Charles gave the impression that he would not have assisted with tasks around the home and child-care even if he worked the traditional '9 to 5' job.

**Intended Career Trajectory**

Charles' intended short term career trajectory was clouded by feelings of confusion and fatigue. When interviewed the first time, he was unsure as to whether or not he would stay in the IT sector. He suggested that a long holiday would enable him to make some decisions about the immediate future:

*Oh, gee, if you'd asked me twelve months ago I probably would have said I'd probably work in IT the rest of my life, but in more recent times, I'm just looking forward to having a long holiday at some point in time and I'll make a decision then.*

His inability to provide a clear or more direct response could perhaps be a reflection of feeling constrained by time and paralysed in the moment with little opportunity to think
into the future. Similarly, an underlying factor that was likely to influence Charles’ intended trajectory was the desire for “financial security.” While “financial security” would enable Charles’ to have an unconstrained “choice” (which he perceived himself as not having) about his career trajectory, it was unlikely that financial security at this point in time could be achieved from a career outside the IT sector. In his words:

> I think what I’d really like to have is financial security so that I can have a choice and I’ll probably still stay in IT. But to me I’d like to have that choice and right now, I don’t have that choice. Like most people of my age, I’ve got a mortgage and financial commitments and it would be nice if they were covered so that you can then have a bit more freedom and choice in what you do. But I’ve obviously got a lot of skills and experience in IT and you know, it would be challenging for me to try to take up some other kind of profession or career.

From the second interview with Charles, some two years later, the desire for a long holiday had not transpired as the firm had been acquired more quickly than Charles and his business partner had planned for. Charles’ current state was marked by periods of stress and exhaustion – described as being “under siege.” When asked about the temporal state of his current working capacity Charles responded:

> I hope so [that it is a temporary state], ’cause I don’t think I can, I don’t think I’ll be able to last very long in this state, in this particular state. Yeah.

However, the entrepreneurial challenges of a new business and an opportunity to increase the price of the company’s stock, was ensuring Charles’ attachment to the company. The pursuit of “financial security” was seen to be compensation for Charles’ hard work over the years. With the acquisition of Company A, Charles received equity in the new firm and while a holiday seemed somewhat overdue, his immediate focus had shifted to increasing the share price of the new firm which could provide an opportunity to sell his stock. Charles explained:
I actually had planned to take a, ah couple of months off next year in 2007 and I actually think I’ll delay that probably to 2008 but really what I’m looking at with [the new firm] is probably within the next ah year or two, we should be able to get the share price up (yep) um and then I can probably start to sell some of my stock and that will give me some of the cash, that I, that I think ah I’m deserved for what we’ve done to build up Company A and then subsequently [the new firm]. So in some ways that hasn’t changed and in some, some ways hopefully what we’ve done is fast tracked that um, selling of the business, so that I can get that that time off.
Rhonda’s Story

Storyline
Rhonda was in her early 50s and married with two children aged in their mid-to-late teens. Both children lived at home and although the oldest daughter had finished schooling and was working, they were both dependents.

Having completed a few units of an Applied Science and Computing Diploma in the early ‘70s, Rhonda was recruited to a type logger’s position with a national gaming organisation – now a redundant role - that predominantly managed back up data. Rhonda was internally recruited to the position of computer programmer where she remained for a total of five years. The organisation’s reluctance to change Rhonda’s job title to reflect the tasks of her role drove her to Company B where she was employed as a consultant to custom write distribution and retail systems software.

Rhonda’s role changed considerably over her years of employment with Company B. Her full time employment was interrupted with the birth of her two children which saw her reduce her hours to work part-time over a 20 year period. She acquired a manufacturing qualification and completed a range of workshops and courses during her time at Company B. At the time of her exit, Rhonda was a senior consultant and was considered a key member of a team who worked with a branded packaged solution which was the crux of the firm’s business.

After nearly 30 years employment with Company B, Rhonda left the firm and bought a business “basically doing the same thing now as I was doing then,” with some past Company B employees. The first interview occurred while she was employed at Company B and was followed by a second interview, some eight months later at her firm.
The transition from Company B to start her own firm was the culmination of many factors. The business venture was somewhat of a pipedream mooted at a social event between past and current staff of Company B who expressed a desire to work together. The job loss for one at Company B was the catalyst for serious discussions about the viability of starting the business venture. Around this time, Rhonda felt that the company [Company B] was no longer the same. The managing director appeared to value the opinions of younger consultants over the expertise and experience of older workers in the firm:

*Credence was given to the opinions of the younger ones and even though I thoroughly enjoyed working with them I still felt that [colleague] and I as people with far more experience, our opinions should have been given more kudos than what they were actually.*

This type of environment led Rhonda to feel that she was not appreciated or valued.

A further driver towards the business venture was the impending retirement of the current managing director which had prompted recent strategic and structural changes within the firm. Potential outcomes included the outright sale of the business or half of the business offered for purchase to existing staff. The former outcome was problematic for Rhonda who believed that she could be jobless because of her age. In her words:

*Working for a small organisation means that you don’t necessarily have the security to say ‘ok, I’ll just sit back and wait here and wait till I retire and take my super and go’. I always had the thought that the business could end up for sale and being somebody of my age, I thought maybe I wouldn’t be master of my own destiny. I might be retrenched or no longer required and therefore I’d be looking for a job (yep), not at my own desire.*

The sale of half the business to current employees was once a preferred option for Rhonda. However, the recent mix of staff made it less appealing to her:

*when the mix of staff changed and they didn’t have that balance with older people, experienced people and people who trust and value um without those people there I felt no that’s not what I wanted.*
The Experience of Intense Work in the Organisation

At the outset, Rhonda equated intense work with the feeling of working under pressure: “when I regard my work as being intensive, it’s a little bit like working under pressure.” For Rhonda, work pressure was comprised of a dynamic interplay between different factors constraining her work. Typically, there would be a combination of time and budgetary constraints that frame the work task and acted as a form of pressure. Yet, in addition to these constraints, there were separate factors that impacted on her ability to complete the task. These included the demands and requirements of the client, the deployment of chargeable hours, whether the task was conducted individually or as part of a team, the pursuit of challenging work and, the gap between the task requirements and the skills and knowledge of the worker/s. The culmination of these dynamic factors shaped the experience of intense work for Rhonda and it was suggested by her that about 75% of her work from the previous year was performed under these constraints.

Client Demands - Immediacy for Outcomes and Displaced Job Control

Re-telling her recent encounter with an American client captured the interplay of work constraints and Rhonda’s experience of intense work. Rhonda’s knowledge and skills were presumably tested by the client and this source of pressure was further exacerbated by the temporal constraints the client placed on Rhonda to provide an appropriate answer or solution to the task at hand. This can be seen in the account that follows:
So, for example working in America, that’s what I’d call intense. I was in a position where my knowledge and capabilities were questioned basically the whole time, you felt as though you may have been tested, I still don’t know (yeah) if that was the situation or not. But in our industry you will often be put under pressure where somebody will ask you a question and they want an answer now, it’s not as though you can go away and report it at leisure and produce a nice report and say, this is the way it works. They want an answer and they want it now, so you really have to, you know, get the thought processes going very quickly you have to think it through and that’s intense work doing that sort of thing under pressure. I find that difficult sometimes. I’d prefer to say that’s your issue leave it with me and I’ll come back to it, (yeah) that’s how I work best. Answers on the fly sometimes I can deal with them, sometimes I really don’t cope with that so well (yeah). So what you’ve got to try to do in that situation is pull it back to the way you want to work and say, ‘yep I can see your problem leave me to it and I’ll come back to you’.

The dynamics of the client relationship appeared to have stripped Rhonda of her preferred way of working, displacing her job control. Not only was she forced into a position to demonstrate her expertise within a constrained time-frame but she had little control over working in a manner that she preferred. Due to her reduced job control, the outcome was often variable and her awareness of optimal conditions to perform well indicated a need to negotiate with the client to reclaim that control. Rhonda explained:

You need to be in control and you need to be able to think it through. Because the other thing is too, you need to think of the consequences of that answer and all of the, you know, possible side effects. You know, an answer that you may give just off the top of your head may by luck be the correct one, but if you spend an extra hour thinking it through, you’re more likely going to give a better response (yep). So that’s what we try and do but it’s not always possible. You know, if the system’s down and the production line’s stopped well they want an answer now, not in two hours’ time, they want it now.
Pressures from clients, at times, took on a pervasive form of intense work and often leached into Rhonda's unconsciousness. Work related topics often occupied her thoughts during sleep and emails were reportedly composed or problems solved after waking early from sleep. These incidents were largely attributed to the pressures she experienced from clients:

\[\text{At times it's hard to switch off, you have times when you're under an enormous amount of pressure when the client—not from internally but from the client. And uh that's sometimes hard to deal with.}\]

**Chargeable Hours**

At Company B, the structure of work determined how work would be performed. At the time of the first interviews, Rhonda's employer operated against a model of chargeable hours: work conducted specifically for the client and consequently charged to the client.

There was a discrepancy between Rhonda's work and the work that was deemed chargeable. Many work tasks performed within Rhonda's role did not equate to work that could be charged to a client. As a result, Rhonda often worked many hours most weeks to meet her quota of chargeable hours, but it could not always be achieved, as indicated in the next quote.

\[\text{If I'm running a workshop or a training session where the contact client is say nine to five then I have other work to do after that. I might be supporting another client, there'll be emails that are coming through and a helpline that I have to answer. There may be proposals, there might be um preparation for a demonstration. There'll be other things that are coming through. Now marketing is not a chargeable. So because I'm heavily involved with the marketing part of the business, there may be weeks where I'm helping [someone] in preparation for demo and I might have several days with no chargeable [hours].}\]

The structure of chargeable hours had other ramifications for Rhonda. There was a pervading pressure for consultants to methodically log their hours of work which often
distracted Rhonda's focus from the task and subsequently created more work and longer hours to complete the task. Working on multiple projects meant Rhonda was hindered by the monitoring which extended what was already a long day of work:

*you had a sort of timesheet system on your laptop and as you'd work you would fill in your chargeable. Now tracking that, it's fine if you're doing just one project for the day, that's fine you'd fill it in at the end of the day eight hours, nine hours project x. If you we're doing multiple tasks can you imagine how much time that takes to remember to record it, to write it out in notes that properly invoiced out to a client. It's a huge burden on you.*

Accountability for consultants to source chargeable hours was critical to sustain their employment. This task was seen to be peripheral to one's actual core role and was often performed on an ad hoc basis:

*So, [pause] you're there to earn money (mmm). And you know, you have to be responsible for that (and um). You get used to it (yeah), but it does control your life.*

While there were no direct consequences for failing to meet the quota of chargeable hours, Rhonda was indirectly affected by the translation of chargeable hours within the firm. A table was presented at quarterly staff meetings which detailed each consultant's source of income, number of chargeable hours and corresponding realisation factor. The publication of consultant's chargeable hours was a measurement of their performance and reflected the consultant's value to the firm. Optimal performance was rewarded with acknowledgement and recognition, poorer performances highlighted weaker individuals within the team. For Rhonda, the activity was a form of torment as it did not accurately reflect the work that she had performed over the quarter. In Rhonda's words:

*At times it has a very detrimental- sometimes it's good if you're up there but if you're not you see people looking at you and the difficulty always is- like in the role that I had I did a reasonable amount of pre-sales work and then some internal administration work involved with the product we were dealing with um that was my role, and that's not chargeable (mmm). So, yes I was working and working as hard as anybody else but those figures, you know, on the table, that wasn't showing.*
While Rhonda had transitioned from Company B to co-principal of her firm five months later the criticality of chargeable hours still permeated her life: “my husband still laughs, he comes home and he says, ‘So how many chargeable hours did you do today?’ So it's in there, in your psyche, still.” Rhonda recognised that professional service organisations needed to have these forms of control. However, the psychological effect on employees was considerable. As a result, Rhonda and fellow co-principals made a conscious decision that chargeable work would simply be recorded with the main emphasis on getting the work done.

The Experience of Intense Work in Teams

An intense work agenda was also likely to be driven from working closely among people with similar drives. Consistently throughout Rhonda’s second interview comments about her work were frequently made in reference to the other principals of the organisation: “Um, I like challenges and we’re all same minded here, we all like a challenge”.

The support from, and attachment to, colleagues was critical in neutralising the potential negative effect intense work had on Rhonda’s life. During reporting times where work pressures had reduced her to tears, relationships with colleagues provided support and assistance. This suggests that people working in these types of environments required opportunities for debriefing. Rhonda explained:

Um [pause] I guess the sort of work I’ve always done is in that environment (yeah) so you get used to it. But the thing that gets you through is knowing that other people are doing it, too (Ok). And there’s other people you can talk to about it and you can get support ... if you’re doing it alone where you feel as though there’s nobody you can get assistance from, nobody’s recognising the issues or the problems or having somebody who can deal with some of the issues and take some of them off your plate, too. So um, that makes a difference as well, too.

Of particular significance was that Rhonda did not want her experience to be in isolation from others. She sought solace, comfort and empathy in knowing her colleagues worked
intensely implying that this experience was not uncommon and could potentially reinforce Rhonda to work under these conditions as it was an outcome that was atypical at this firm.

**Skilling and Keeping Abreast of Technological Change**

The notion of upskilling and keeping abreast of technological changes was an ongoing reality for Rhonda. Skills, knowledge and technologies were challenged by IT currency demands on professionalism. While it was not possible to maintain pace with all changes to the product and acquire the most current skills Rhonda recognised that, despite her seniority in the firm, she could not be complacent with her level of knowledge and skills. In her words:

> Well you've got to keep on top of technology, now you can't become an expert in every area but even the product we're dealing with there are things that are happening with it that have been new skills for me ... you can't just stay in your comfort zone and say, 'oh yeah, I'm an expert in that area that's fine I know how to deal with it'.

An awareness of what was happening in the industry and acting on it at the time were more effective ways of ensuring some currency of skills and knowledge rather than being complacent about one's expert status. This could be conducted through accessing appropriate training courses, regular reading and spending time on the Internet conducting research.

While it was unknown what effect research and the broader learning of technologies and skills had had on Rhonda across her working life, it was not perceived to be problematic to her career trajectory. At the time of the second interview, Rhonda did not perceive it to significantly impact on her ability to work up to the age of 60 if the rate of change in the industry was not radically different and she had continued to upskill:

> I'm [in my early 50s] now, I can certainly see, if the industry stays the same way I could probably still work till 60. If it didn't change all that much, I could still do that, as long as you keep your skills up.
**The Pursuit of Challenging Work**

In addition to the organisational structures and client demands that clearly impacted on Rhonda’s experience of intense work, her pursuit of challenging work also influenced the intensity she experienced from her work. These forms of intense work (such as her work with the American client) were fuelled by the desire to develop and improve her professional skills and to acquire a sense of satisfaction and achievement from work that would test her competencies and capabilities.

Although the necessity for challenging work was self-imposed it was often associated with a sense of discomfort, “*some people are happy to be in their comfort zone. Um, I like challenges.*” Perhaps this was best captured by Rhonda who saw opportunities to grow and personally develop through challenges that extended her skills: “*having the opportunity to stretch my skills has been great because you need that (yeah), well I need it. I need it*."

Rhonda’s aspirations to develop her professional skills reflected her personal philosophy of life-long learning but perhaps it was also underlined by forms of negative projections of age. The experience of being undervalued in her previous workplace where she believed there was a preference for the opinions of younger workers had manifest negative self-perceptions of age and a feeling that perhaps she was not employable: “*I’d always said to the other guys that I didn’t think I would be employable at my age.*” A recent challenging experience with a client shed some of the doubts she held about her abilities and dispelled some age attributions that existed in her family unit. This was seen in the experience below:

> ... when somebody says, ‘Oh, thanks (mmm). You’re just the best person we’ve had deal with this’, you sort of think, ‘well hang on, I’m just a little person from Oz, where my boss didn’t want to listen to my opinions at times and all of a sudden I’ve got someone from a Fortune 500 company in the US telling me how wonderful I am (mmm), Oh, my gosh. That’s fantastic!’ Yeah, you know at my age, [early 50s], somebody’s saying how fantastic you are and what you’ve done to help them and you sort of think, ‘Oh, wow, somebody thinks I’m great!’ And then to come home and tell
that to your family, tell that your kids, and all of a sudden they look at you and think, ‘Oh, maybe she’s useful after all’ (laughing). That has been a bonus.

Tied closely to the notion of developing one’s skills was a philosophy of testing one’s abilities to meet a high need for achievement and sense of satisfaction. These derivatives of challenging work were likely to evoke greater degrees of intense work and perhaps even risk, with the stakes rising with each new challenge. Rhonda commented:

Your satisfaction can’t be achieved unless you’ve been tested (mmm). Some people as I said are probably very happy to just go along and do the same thing every day and never have any change from that but your greatest satisfaction to yourself comes from achieving something that you didn’t think you were capable of doing (yeah). And in order to do that you gotta be tested, you’ve gotta go through the pain (yep) and sometimes it works and sometimes it doesn’t. I’ve had situations where it hasn’t worked (mmm) and then you really sort of think you go over and over and sort of think what could I have done to get a better result, what could I have done not to have failed like I failed (yep) and ah, you do take it very personally. Now that’s the way I work and that’s the way the other partners work here, which is why we are together (yeah).

In order to meet her need for achievement and satisfaction from challenging work, the bar was raised with each new project. The allure of challenging work, although intense, meant that the tension between success and failure became finer with each new challenge. In some respects, the chance of failure increased with the pursuit of successive challenging work. The result could be particularly damaging, particularly for people who experience multiple constraints on their employability, like Rhonda and her self-perceptions of age.

**The Interaction of Trajectories and the Experience of Intense Work**

Rhonda’s work often encroached on the non-work domain. This frequent experience during the working day was likely to be a result of striving to combine inevitably long work hours with her role as a mother and as a daughter to an ageing parent. The
Peripheral Constraints of Work

Rhonda had a mix of work and non-work tasks that were often structured into a seamless daily routine. These tasks included navigating the peak hour traffic, paying fees for parking, dropping children off to school and work, and visiting her mother who was in a nursing home. Yet, the location of her work in the central business district (CBD), and subsequent issues regarding peak hour traffic and early bird car parking rates often impacted on her ability to succinctly mesh the activities of both roles. These peripheral aspects of work contributed to an experience of intense work and although she had flexibility in the organisation to negotiate her own starting time, the following comment encapsulated the tension experienced when attempting to execute all tasks within the day:

... you couldn’t just say well I’m coming into the office around 11 (yeah). Because you’d have to think, ‘Ok, well how do I organise the car parking?’ sort of think of that. And your life would be driven by that and you don’t really realise until you’ve stepped back how much that’s guiding what you’re doing (yeah) ... Little things like that just add up.

The move to a firm outside of the CBD – against the flow of traffic and with free parking-coupled with increased influence as a business owner, offered greater flexibility to make the most effective use of her time. It eliminated the peripheral pressures Rhonda experienced trying to mesh her work and non-work activities. This meant that she spent less time in the office and more time in the house with her daughters, albeit working remotely from home. The location of the office also enabled Rhonda to occasionally visit her mother at the nursing home on her way home from work:

So I’ve found that that’s taken a little stress out of my life (yeah). I still don’t go and see her every day (no) um but it’s, it’s made my life a little bit easier.
The Meshing of Work and Family Roles

Work had featured prominently throughout Rhonda’s life. Even during the years when her children were very young, work was often performed concurrently with the role of raising children. Despite a brief detour after the birth of her daughter to casual employment elsewhere, Rhonda returned to Company B when her daughter was just over 12 months old to work a five day fortnight. Her hours steadily increased up to four days a week over the next 20 years, and then to full time employment when her children were in their late teens. This type of working arrangement enabled her to remain attached to the workforce, working in a professional capacity. Her career was further supplemented by learning opportunities leading to the completion of formal qualifications.

Looking back over her working life, Rhonda recognised fluctuations in her application and the intensity of work which she had aligned with the shifting needs of her children. Fewer days of work, and working traditional hours of work enabled her to effectively manage her need to work with the demands of being a mother:

> When they were younger it was more that I worked a nine to five sort of type of job. I would not like to be doing what I've been doing over the last few years with a young family, it would be difficult.

As her children grew and attended school, Rhonda invested more hours in work.

The pervasive nature of Rhonda’s work often set up an environment where she could not “just go home and switch off.” Rhonda derived a great degree of satisfaction from work, which often traversed the work/non-work boundary and occupied her thoughts and efforts when not physically at work. In her words:

> the only way you can’t have that [work in non-work time] is if you have a job where you go off to work and shut the door when you leave the office and worry about it when you open the door to come back in. And what satisfaction are you going to get out of that? (mmm) Maybe some people do- it’s not the sort of environment I’ve ever worked in (yeah) um, ever really desire to work in.
Rhonda acknowledged that the pursuit of challenging and meaningful work potentially had resulted in some detriment to the time she spent with her family. However, she dismissed the impact her absence had on her children and rationalised it by their familiarity with her work ethic:

*I think it was the other night, where the girls wanted to talk about something or watch something on the TV with them and I couldn’t because I was working (yeah). But I work in the same room as them so I can at least talk to them about it [pause] Um but they’re used to that with my husband so that’s the environment they’ve grown up in (mmm) and I studied while they were at school and everything too, I went back and did some study and they get used to a certain work ethic so neither of them have had parents where it was just nine to five, so they understand that and think that that’s the normal life.*

**Intended Career Trajectory**

The intensity of Rhonda’s working life often led to persistent feelings of mental exhaustion and she had little time for leisure activities. Older age was perceived as leading to constrained leisure time due to debilitating work:

*You go home, you lie on the couch, and then you go to bed … You get very tired. And so by the weekend you just want to veg out … I think it’s a thing with age that you’re quite—you don’t cope as well with the longer hours as what the young ones do. And you tend to be tired at night.*

Although it remained unclear, Rhonda’s constraints of age were perhaps internalised from her experience with her previous employer and common age stereotypes.

The transition from employee to business owner had altered Rhonda’s retirement plans. At the time of the first interview, Rhonda was considering a gradual retraction of working days, reducing her employment status to four days a week. She pondered:

*I’ve sort of thought at times this is the stage in our life to have more time to, to read and perhaps to do other things but I can’t imagine a life without work at this stage.*
The notion that she was not ready to retire was strongly reiterated in her second interview. Rhonda drew parallels between her mother's ability to take advantage of life circumstances at the later end of life and the pursuit of founding a business, recognising these events as opportunities not constrained by age:

*I can see that from my mum [early 90s] (mmm) that you take every opportunity that you’ve got it may not be want you want in life [pause] I mean at 87 she ended up in a nursing home saying she never wanted to be in one and that that would be the end of her (yep). She is taking advantage of what life’s got for her at the moment and making the most of it (yeah). And I think that’s been a very important life lesson, for me (mmm). Yes, [in my early 50s], are you going to travel for forty years? What are you going to do? [Interviewer laughs] (Yeah). What are you going to do with your life?*

Rhonda's retirement intentions were largely offset by the opportunities and benefits that her work provided. Work was perceived to have a “very high priority” in her life giving her stimulation, enjoyment and a financial income. Founding a business was seen as an opportunity to do something different prior to her gradual retirement from work. In her current position at the time of the second interview, she and the other co-principals had high expectations of being in the BRW list of upstarts (a list of Australia's fastest growing up-start companies) in two years’ time and, therefore, at this time, her preference to reduce the hours she worked was no longer considered.

Furthermore, Rhonda's view of age was largely shaped by her familial roles, which influenced her role of work. Aware that she was old enough to be a grandmother, Rhonda’s role as a mother to dependent children presented a set of different demands facilitated by the financial benefits of work:

*I still have a [teenager] (yeah) and um ... you know who’s at school. And I think when you’re in that stage of your life it’s very different than if I was a grandmother which I could be a grandmother to grandchildren. And so my needs and wants would be very different.*
Her enjoyment to provide for her daughters also deterred her from graduated or full retirement:

*My own enjoyment comes from what I can do with the children (yeah) with the girls. So if we can give them the ability to travel and do things like that - I'm not saying at this stage, 'No, you've got to pay for that yourself, you've got to do that yourself'. I'd prefer to be able to say, 'Ok, here you are I'm earning money this is the benefit'.

Prior to the inception of the new business, Rhonda’s experience of long working hours was shaping her feelings towards retirement, albeit partial or gradual retirement. Yet, the founding of the company had created some buoyancy that elongated her working life. The experience of an exciting new challenge in her work renewed and predisposed her to financial opportunity that indirectly benefited Rhonda’s children, nearly young adults.
Laurence’s Story

Storyline
Laurence was in his mid-to-late 40s and was married and born in Asia. His wife was a full time carer to their three children who were aged from the middle years of primary school to early high school age groups.

In the early ’80s Laurence completed a degree in mathematics directly followed by a Masters in computing in the UK. Difficulties obtaining a work permit in the UK saw Laurence return to Asia where he worked in a computing role at a relation’s automation company. After nearly 10 years in this role, he migrated to Australia on a skilled migrant’s visa and has worked with five IT services companies over some 15 years.

Laurence’s mobility across IT firms had predominantly been motivated by working with technologies that, according to Laurence, were not just “exciting” and “interesting” but were also perceived to offer sustained employment opportunities. Maintaining access to high quality employment opportunities was critical to Laurence particularly at the time of the second interview compared to when he initially started in the industry. In the wake of the IT bust (2001/2), Laurence had vicariously experienced retrenchment through the job loss of people around him and was concerned that as an ageing IT worker, he was heading towards that fate.

Laurence was first interviewed at the company office of his fourth IT employer where he was employed as a senior software engineer. He had worked in management positions prior to employment with Company A, where he was working in a technically based position. This shift in pathways was an attempt to build a secure pathway as he grew older: “I think it’s more like getting experience in what I believe are relevant technologies [pause] because that is what future employees are looking for”. 
Retained by Company A for approximately one year, Laurence then moved to a large firm where, at the time of the second interview (some 16 months after his first), he had been working for 8 months. His exit from Company A was marked by feeling that he was not gaining experience or exposure to technologies that would make him more employable. With his current employer, Laurence had recently finished working on a project as a team leader of about 10 people, where he was “coordinating people’s work.” At the time of his second interview he was working “at the coalface” as a software developer.

**The Experience of Intense Work in the Organisation**

For Laurence, “doing the most work in the shortest space of time” was defined by him as intense work. Upon exploration, organisational structures within the firm - including employer’s expectations of consultants, the construct of billable hours, project planning and estimations - combined with the pace of change in the IT sector contextualised Laurence’s intense work experience. These experiences were further compounded when pitted against Laurence’s life course as a father with a dependent family and his quest to ensure his employability as an ageing IT worker.

**The Firm’s Expectation of Consultants’ Level of Service and the Negotiation of Billable Hours**

Expectations of consultants were communicated across the firm by directors to reinforce key behaviours expected of their employees. Laurence re-told how a company director commented that: “We work for an organisation. We are not contractors we don’t get paid by the hour.” When asked to elaborate, Laurence perceived this comment from the director as meaning: “If the project calls for you – requires additional effort, we [the company] expect you to do it without [anything] in return.” If perceived as intended, the firm’s edict was that consultants provide an unconditional service to the client with the former largely at the mercy of meeting the latter’s demands.

The firm’s policy of working hours was highly ambiguous and implied some rhetoric in their expectations of consultants. While Laurence was a little unclear about the particulars of the policy, he understood that consultants were compensated for additional
hours of work, only if the client agreed to finance it. In addition, consultants would only be compensated from the 44th hour of work. This meant that the 41st to the 43rd hour were performed but were uncompensated to the consultant, as explained by Laurence:

They view us - because we are permanent employees not contractors, right? as people who are committed to working for a project. So when there are times when – ah [pause] basically although we are committed and working 40 hours a week, right, [pause] if you are required to work a little bit more just to get things done, right, they expect you to do it. So if you find that your project is at the sharp end and you have to work longer hours, they will say that ah from – you are not going to get – the extra hours are not going to be counted unless the client pays for it.

The firm’s expectation of uncompensated working hours was to the employer’s financial gain given that the client would be funding the firm for consultants’ additional hours of work. However, if the client did not agree to fund the additional work required on projects, work would be performed without compensation and the consultant was expected to provide an unconditional service. Laurence commented on a recent experience from his last project:

towards the end – we quoted a certain amount of money to the customer, right, and we said we’re going to do it in this amount of money (mmm), right, but we couldn’t deliver. We said, ‘we’re going to go over, and going over means either [company] to foot the bill, or the project has to foot the bill’. But there’s no money in the project, and the expectation from the company was that you’re going to work your hours.

The tension between exploitation and tolerance of extra, unpaid working hours was underpinned by the necessity of employment. Laurence resigned himself to the commercial nature of business: “I find that most people just do it because they understand that it, you know, needs to be done.” He was constrained by his life course position of being the family’s sole financial provider:

... if I’m in that situation [of working uncompensated], even if I don’t want to do it, I can’t [not do it], because financial commitments are there. I can’t be without a job for any stretch of time.
This scenario perhaps contributed to higher tolerance of long, unpaid working hours as Laurence was skeptical about the possibility of well-paid positions in the market that did not have long hours.

**Project Planning and Non-Billable Hours of Work**

An outcome of consultants working hours was based on the precision of the project plan. Developing project plans and providing estimations of time for project phases required high level skills and was perceived a challenging task of IT work:

> IT is one of those things, I’m not sure what other industries are like, where you have to make estimates, and estimates are very difficult to deal with. You have a sort of assumption and expectation. If you don’t manage that properly (yep), you are always going to take longer to do it.

Further compounding Laurence’s experience was the size of the project team (in terms of the number of people working on the team) and his degree of influence over the project.

Large projects tended to follow a comprehensive planning process and the commercial reality of IT projects was that, “inevitably, things take longer than they should.” Often employing a ‘waterfall’ style of planning, each phase required successive completion before advancing to the next phase. Deadlines were forecast for each phase of the project. However, the difficulties associated with estimations resulted more often than not, in missing ‘phase’ deadlines and consequently led to more aggressive work as the team endeavoured to meet the client’s ultimate deadline. Often, this translated into additional working hours: “[when] things are not coming to plan ... they start saying, ‘you’ve got to work longer hours’, that’s the only way you can ... catch up”.

An ‘iterative style’ of management, which in Laurence’s experience was more common for smaller sized projects, enabled the focus on the foreseeable problems which minimised risk upfront and, therefore, streamlined processes to avoid additional hours of work to meet the deadline. Laurence elaborated:
You realise that in this industry it’s not an exact science. It’s not like engineering, proper engineering, where if you’ve got this dimension and you know you’re using this concrete, you know precisely how heavy it is going to be (yeah). Whereas here we can’t predict, so what you want to do is – the way I see it is that you know that problems are going to come up, you work in such a way that you expose the problems early on.

With smaller sized projects Laurence felt that he could “exert more influence, and as a result – you therefore have more control.” He had accountability for developing a solution and planning how to proceed which, with a strong experience base, was perceived as a fortuitous and more favourable position to occupy. While smaller projects offered Laurence the fortune of a higher level of influence and the exertion of more control, they require more responsibility than a larger project performed by many. Laurence experienced this first-hand when a family issue resulted in some absence from work. His absence was easily absorbed on the large project he was working, with little impact on the overall project. It was assumed that the outcome on a smaller project, where there is greater emphasis on the role of each member, would have been less effective for the team and Laurence.

**Employability and the Pace of Change**

The interviews with Laurence revealed that he had persistent feelings of anxiety about his future employment opportunities which heavily shaped his application to work and, therefore, influenced his intense work. At the older end of the IT workforce, Laurence recognised that his employability was sustained by conversancy in current technologies and those in demand: “You know, I, it’s like, survival instinct, for me. You stay put and you die off, or you move along with the changing environment and you know, survive”.

Laurence’s career trajectory was heavily shaped by his necessity for employment in high end positions. Earlier in Laurence’s career, his trajectory and gravitation towards projects and their technologies were based on what he found interesting, whereas later in his
career it was largely governed by its potential for promoting job security and employability. Laurence explained:

... in those days you were probably thinking more like, 'oh this is what I want to do, this is exciting, you know, this is sexy, this is leading edge, I want to get involved in that', right, and not so much, for the fact of saying, 'I need to have, you know, I, [pause] if I don't keep learning I'll be out of a job', the, the thought wasn't there, [pause] but, you know, as you grow older you start saying, 'right, well hang on that's what's happening'

Laurence's career and focus on optimal employment opportunities was perhaps underpinned by his family status. As the sole income earner with three dependent children, ensuring his employability in high end positions was critical for the sustained financial provision of his family. Internalising the pursuit of employability placed considerable pressure on Laurence to be accountable for his job security:

I mean, I've got family, and kids to support and stuff like that, you need to make sure you've got a job so you, part of the onus is on myself to make sure I stay relevant, stay employable ... And so therefore you look at it and say what's important? Job security and getting all those benefits or making sure that you stay with the right sort of technologies to make sure you stay employable in the future, so the idea is that if you get shoved out right, you should be able to get a job fairly quickly somewhere else [yep]. And that's what you want to feel, how you've, that's how you get job security, not by, by saying, 'I'm going to stay with a company that when retrenchment gives me twenty weeks of leave whatever and things like that'. To me it doesn't matter as much, as to say, 'Hang on, I go with this company because I know the skills that I have will make it easy for me to find another job should I have to'.

The intersection of Laurence's employability and job security offered job mobility which was deemed paramount to his career. Possession of current skill sets increased one's marketability in the labour force, and if skilled appropriately, enabled the job seeker choice of employment positions and the fluidity to move across positions. So whilst accountability for job security and optimal employability rested with Laurence and his
ability to perceive what projects and technologies would improve his employment prospects, it would, if pursued, place him in a better market position.

The Challenges of Ensuring Employability and Maintaining the Pace of Change
The pursuit of ensuring one’s employability by maintaining the pace of technological change, however, was problematic and accentuated Laurence’s experience of intense work. He explained: “That’s the unfortunate thing in the IT industry you really have to keep pace with the changing technologies.” Laurence appeared to have a clear view of how to sustain his employment in the high skills end of the sector but his employment was compounded by many factors. These included a waning interest in technology; his perceived difficulties with memory loss and ageing; the ongoing pursuit of high paid employment; and the challenges of keeping on par with change combined with non-work roles.

Within the one sector for nearly 20 years, Laurence acknowledged that his ability to persistently keep abreast of technological change had lapsed to a loss of motivation:

I am finding that - I spend less time going through the technologies that I need for my work and I spend- I’m less motivated, that’s the best way of putting it, to learning the technologies I need for my work (yep).

While skill and knowledge currency helped ensure against redundancy, the pace of change in the sector was persistent and would inevitably lead to obsolescence if new technologies were not sustained. Laurence shared his view:

I think – if you look at it – take the technology side of it, right, it’s been the same now, you do something and it goes, you, you get the next job, do that. You know, and you ask ‘why?’

Throughout the two interviews Laurence implied that his employability in the sector was diminishing because of his age. Laurence recognised that age was often linked with salary and that older workers often demanded higher salaries, but that the latter was often
associated with more responsibility and a higher likelihood to experience some form of intense work. In order to sustain a consistent high level of salary, Laurence felt constrained to either occupy management positions or take on higher level duties where he could maintain a high level of income:

because of the age I am, right, people tend to earn more as they get older, right, and you say hang on, are people willing to pay this much money, for what I do right, and therefore there is a, ahhh [pause] a necessity, out of necessity, I was going to have to do more management roles, because of what I get paid.

Positions, such as programming, often attracted younger employees with salaries about a third of what Laurence would demand. If Laurence elected to avoid an intense work agenda by slowing down and not pursuing the learning of new skills, he would have no platform to demand a high salary level and more than likely be replaced with younger developers:

Because there is always that, you know, I say, ‘well hang on how long can you keep, keep this up, right?’ The, the question is [pause] what, either I stay stagnant and drop my salary to keep up with them. They say hang on, he’s old, right, we get three bright, young sparks, who do exactly what he does, you know?

Retaining new information was also perceived as difficult and Laurence believed that age had an impact on people’s memory retention. Coupling memory loss with industry expectations for workers to learn in their own time, upskilling was deemed non-conducive to older IT workers with commitments outside of work:
Um [pause] it’s – you have to – the IT industry deals with technology (yeah). And you’ve got to keep up with it, right. And [pause] you know at some point in time the way the human brain works, it needs a lot of things up here [points to the head] that as you get older, what can be absorbed probably slows down a bit (yep). Yeah, again, it – if you look at the way our working society is structured, when you are a bit younger, you can devote more time to keeping up to date with the technologies in your own spare time, right. No company at the moment is willing for you to learn technology while you’re on the job.

According to Laurence, IT careers are easier to sustain for young workers. IT careers become more difficult to maintain as one ages and has other commitments and responsibilities in the non-work domain. For Laurence, learning new technologies was very difficult to maintain in his non-work domain because of his other commitments and his perceived difficulties with memory loss.

The Interaction of Trajectories and the Experience of Intense Work

The demands of learning to sustain one’s employability had a clear impact on Laurence’s life, broadly speaking. The pressures to maintain access to optimal employment opportunities were explicitly identified as a facet of intense work and affected the number of hours that he worked:

You’ve got to achieve more within the same timeframe, you’re expected to know all these technologies, be familiar, conversant, and be productive with it, whereas in fact you are not conversant with all technologies. So therefore you have to spend the time understanding it, and therefore you work longer hours (yeah), because you think, ‘I should know this’.

Maintaining the pace of changing technologies and organisational structures impacted greatly on his role as a father within his family.
The Implications of Maintaining the Pace of Changing Technologies on Family

The pursuit of upskilling to be employable coupled with the role as sole working parent presented a conundrum for Laurence. Aware that his employability was associated with conversancy with leading-edge technologies, Laurence was presented with the paradox of upskilling outside his traditional working hours to ensure employment security for his family at the expense of spending time with his children:

Oh [long pause] I like to think, that I stay current with my technologies, right, but I think that, because there’s all the people - you have family, right? You have to devote time to your family as well so you can’t expend as much time, doing you know, [pause] learning about new technologies and that’s where you begin to fall behind.

The demands of maintaining his employability and role as father also had a detrimental effect on his work. Whilst Laurence was aware of commitments in both domains of his work/non-work life, having a family was perceived to affect his work “Umm [long pause] in the sense that I’m not able to stay abreast of [pause] technologies as much I’d like to.” Compounding the situation for this individual was that while his preference was to spend time with his children, his perception was that other workers in the sector were likely to choose work over family and, therefore, they were potentially reducing Laurence’s attractiveness as an employee in the market. In his words:

I mean, I’ve got demands of family, they need my time, so I might try and spend time with them, right, but some people might say, ‘Well hang on, I’m a real techhead, you know, I’m just going to learn about this, don’t care so much about family’, and their family might be happy that, you know, he goes and spends time doing that.

The Impact of Organisational Structures on Family

It was not just skill maintenance and learning that leached across the work domain. Other factors that comprised intense work, such as billable hours, project planning and estimations, also impacted on Laurence’s non-work domain. There was limited time to be spent with his family not just from having to learn but from long work hours:
Um [pause] I – it gets to a point where really I spend very little time with my family at home during the week (yep), so you tend to look forward to the weekends a lot more than (yeah) before.

While Laurence’s comment implies that weekend time can be spent with the children he did spend some time on the weekend completing work tasks. The permeability of boundaries between work and non-work domain facilitated the demands of Laurence’s work. However, it was met with some dissonance from his children who questioned his time spent on work from home:

Even at home, my, my kids will say, if I’m on the computer, ‘Dad why are you on the computer all day?’ I say, “well hang on, I’m on the computer all day, that’s, that’s what I do, I need to learn stuff, I need to do things.

**Intended Career Trajectory**

Laurence was feeling somewhat exhausted and perhaps had a loss of purpose from the persistent learning of new technologies. He described how he felt: “I’m already feeling I don’t want to work anymore, but unfortunately I have to (respondent laughs).” Overall, he felt that a career change was somewhat unlikely given his sole experience in the IT sector. A possible option was to move from the consulting realm into a client based company “working for you know, people who use, use IT as their business, IT is not their core thing.” These companies were perceived to offer more job security as only a few people would be familiar with the system and therefore, the chances of retrenchment and replacement would be unlikely. Laurence had applied for some positions with these firms but was unsuccessful in securing a position. While these positions were perceived to offer some relief from the persistent learning of new technologies, the flip-side was that they could also potentially be unstimulating. Laurence was unsure if such a position could sustain his interest:

I don’t know whether I would have liked it. I don’t know about what I would have done if I had to look at the same system for five years non-stop. I don’t know.
Laurence’s projections about work in his 60s and 70s were plagued with thoughts of retrenchment. He frequently cited his closeness to being retrenched at previous employers and its likelihood to result in his exit from the workforce. While he tried to gauge the notion of retirement and his intentions for retirement he conceded that the end of his IT working life was at the mercy of employers and not a result of his own influence:

*That’s a hard one, because [pause] you look, you say well hang on, can I retire on this income, you know, my personal feeling, right, is that I’ll get retrenched before I reach retirement age.*
Sam’s Story

Storyline
Sam was in his 60s. He was married with two children and had grandchildren who lived in Europe.

In the late ’60s, Sam completed a mathematics degree in Europe and then took up a role with a computing department at a local university. In the early ’70s he emigrated to Australia and worked in a computing role with a university before marrying. After 18 months at the university he left and travelled around Australia for a year. In the mid ’70s he went back to Europe and was employed at a national banking institute. He stayed for about six months and then moved to Australia.

Sam and his wife settled and he worked for a small business building commercial systems for credit unions. After about two years he moved to Company B and worked as an IT consultant. In the late ’80s Sam left Company B at the request of his wife and pursued work in Europe. He then returned to Australia some two years later where he conveniently resumed work with Company B: “It was probably the easiest you know just to come back here. Maybe it was you know I was a bit lazy”.

With over 25 years of service to Company B, Sam was now employed as a senior consultant. In the ’70s and ’80s much of Sam’s work was performed in teams of four or more people, working very closely with each other to custom write software. More recently, Sam had worked within a small, dwindling team of three supporting one of the firm’s older, software packages. The package was considered somewhat antiquated which accounted for the diminishing size of his work team and customer base.

Much of Sam’s work was split between writing software and working with clients to help them understand how to use the product. A degree in accounting, much later in his
working life, had assisted Sam with custom writing of software, particularly code modifications made to an American software package which was tailored for Australian tax legislation and custom solutions. His position included conducting training workshops to help them understand the software, providing a help function for clients and other general support functions.

The research interviews with Sam were conducted at the company office about eight months apart. There was a strong sense that he was going through a period of reflection as his working life was coming to an end. Sam faced a closing of options and was in a state of flux regarding his future employment status with the firm. He had felt stagnant in his role for the last few years and had experienced a dwindling client base as the firm moved to newer packages – he resembled a ‘sitting duck’ - powerless and waiting to learn of his fate: would his work reduce to a part-time capacity or lead to possible retrenchment?

**The Experience of Intense Work in the Organisation**

The experience of intense work was highly associated with pressure, depicted by emotionally feeling panicked, working frantically or what he termed “firefighting”, as Sam often described it. This type of work tended to be driven by the time bounded nature of commercial relationships, project cycles and aggressive deadlines dictating, long working hours, and client requests that demanded an immediate focus. “Firefighting” could provide a great source of satisfaction and a sense of achievement for Sam, but it was conditional on a number of factors. While upskilling was associated with an intense work agenda, Sam’s avoidance of upskilling and the lack of learning opportunities at Company B impacted on the quality of his working life.

**Project Cycles, Deadlines and Long, Work Hours**

Project cycles often dictated long work hours. Much of Sam’s work was client driven projects typically of one year’s duration. Around the time of handing over the deliverable to the client Sam often worked 80 hour weeks to ensure that the deadline was met: “*at the end of the project that you would have (yeah) three or four weeks where you worked very*
hard to get it in on the deadline (hum) (yeah).” While these types of working hours were expected at the tail end of a project Sam felt constrained by the work and no longer able to sustain excessive work for more than a week.

The time constraints on task completion were somewhat debilitating and often constrained Sam’s thinking capacity. Space and time for thinking, particularly away from the office environment, alleviated some of the pressures to perform and sometimes proved fruitful for solutions contributing to his overall satisfaction. Sam described how he felt:

*I feel under pressure, and I might almost panic (yep) ... sometimes you haven’t resolved it but then you know, I go home and I think overnight, and think about – which sometimes is important because if in the middle you know, it’s fine but the danger is that you go down a path and you haven’t got time to think properly if there was something wrong (yep) so at least when you can go home, you’re mentally still thinking about it, and – but you might think about – think more laterally (yep) and find a complete new way to attack it the next day (yep) and that might be actually very satisfying that you realise you know, you did it wrong or in an inefficient way, and you found a better way to solve the problem.*

While this form of intense work often brought on emotions of panic and a frantic pace, it provided a sense of satisfaction that was deemed a key requirement of his work. When asked about the frequency at which he worked this way, Sam responded: “It’s not frequent enough anymore (respondent laughs).” The package that he supported had been used for a considerable time by clients and, therefore, Sam was not likely to work on problem solving requirements. With a dwindling customer base and no opportunities or requests for reskilling, Sam was no longer facing technical challenges that would require intensive work. “Thinking back now, in a way that’s – maybe I have been less satisfied by my work than I was [pause] five years ago.” While these forms of intense work evoked feelings of stress, it concurrently evoked positive feelings of achievement and satisfaction.
**Upskilling – The Avoidance of an Intense Work Agenda**

The currency of Sam’s knowledge and skills presented further pressures for him and affected his general experience of intense work. Given Sam’s aversion to upskilling, combined with a lack of learning opportunities at Company B, meant he was largely reliant upon existing skills to complete his work and the help of others. In his words:

> I normally use skills I have for a long time (yep) and had to learn some new skills to get by (yep) but normally it will be very shaky, and I sort of can get by, but if anything unusual happens then I have to ask for help (yep).

Consequently, the opportunities for experiencing satisfaction and a positive outcome from intense work were somewhat diminished in light of a lack of skills and knowledge. Sam explained:

> At the moment, you know, sometimes it gets a bit too much, but if you sort of think you’ve got the skills to solve it (yep) then it’s fine. If stuff happens which you say I don’t have a clue, I need help or yeah, I haven’t got the resources to get on top of it, then that’s not so good.

The association of the notion of skilling with that of survival was common among IT workers across the working life. While current skills were equated with employability, Sam had tried over the last 20 years to stretch or elongate the currency of the skills he possessed to relieve him from the pressure that he had to upskill. A few years from his ideal retirement age, he was questioning the longevity of his current skills with hope that they would be sufficient to equip him up until retirement:

> I’m, thinking about how I can survive with the skills I’ve got, you know for another few years. And when, I was forty you know like I went, got my accounting skills because (yeah) at that stage you, you know, yeah, that you have to have new skills otherwise you couldn’t last.
The Impact of Age and Timing of Learning on the Aversion to Upskilling

Although aware that upskilling was critical to maintaining his employability, it was difficult for Sam to sustain it across his working life. While Sam had pursued the learning of different programs and technologies earlier in his career, the perceived efforts required learning and the difficulties associated with ageing, discouraged Sam from upskilling in IT. Drawing parallels to his recent experience of learning a game of bridge, Sam was more likely to retreat from learning than make the investment required to understand the new technologies which he saw as having an impact on other things in his life:

... if I make an effort to learn it and I’m not convinced (yeah) that it’s needed, then I take the easy way out (yep). Um, yeah, let me think - with bridge I can see I - if you want to be an expert, realise that would be lots of very hard work (yeah) and I – one other aspect of it is when you’re older it’s much harder. I can see with the bridge rules and I have to read – go through it three or four times (yep) to remember. And I would have thought when you were younger it was much quicker than that so I think that discourages you as well to yeah – in a way in IT you realise more how difficult it’s going to be, it’s hard to do.

Sam’s perception of ageing, and its inferred association with memory loss, led to a further aversion to partaking in training programmes. For training to be effective, Sam believed that it had to have an immediate application. Sam’s aversion to training programmes was based on fear that he would not be able to remember the learning if it was not applied immediately:

Yeah if I, I wouldn’t want to go on a training course which is not immediately relevant in my work (hum). Because you know then if, if something happened maybe in one year’s time I would have forgotten anyhow so maybe that’s (respondent laughs) related to age as well.

The evolution of software and technologies over the four decades of Sam’s working life had an impact on Sam’s recent learning, with his early work experiences dating back to the use of mainframe computers. With the evolution and change of software, Sam was rigid in
adapting to the new ways of systems and found it very difficult to re-configure his way of learning to work with current software:

... I think it’s hard you know to keep up with the latest thinking or how you, the program logic has changed ... so the way you think, how you write a program has quite changed (hum). And you know in a way you say once you learn a certain way it’s then you, that's like a handy cap (respondent clears throat). Because if you have to think completely different it’s much harder then somebody who hasn’t had ... [to] start and do it from scratch.

Sam had managed to sidestep the pressure and demands of learning new technologies over the years of work, yet, this led him to feel stagnant in his role. More recently, as a senior member in the company, he watched his client base dwindle in the company as they transferred to newer IT technologies. While he now had time to pursue his health interests he was feeling redundant and showed signs of low self-esteem.

After 40 years in the industry, Sam could foresee the end of his career based on skill redundancy:

One of the problems in IT is, you know, there’s lots of things happening and when you get older you sort of think, ‘Ah, that’s not important’. And then you know, you say that more and more (respondent laughs). And then you suddenly realise you know, that you haven’t really got new technology skills anymore.

In an attempt to take control of the situation he pursued other job opportunities. However, such attempts were unsuccessful and Sam believed such rejection to be the result of his age.

The Interaction of Trajectories and the Experience of Intense Work
Aspects of Sam’s work that were pervasive leached across into his non-work domain. The nature of this work was largely driven by a fixation to provide solutions: “I never did stuff to make a career, I just did stuff because I wanted to solve a problem.” The mental aspect of
work was difficult to disengage from and often Sam’s sleep would be affected by thoughts about work: “I would get mentally involved in it. If something happened and you might not have a solution I might not sleep well and think about it”.

The peaks of project based work sometimes resulted in 80 hours of work per week to meet deadlines: “you sort of just did it to finish a project, and then normally you had a break (yeah) and you could relax again and take it easy.” These periods of work were liked and provided Sam a sense of achievement but it was at the expense of spending time with his family:

... personally I liked it. You know, I sort of felt guilty when it happened when I had young children, and I sort of knew, that maybe I haven’t got my priorities right.

The paradox of gaining satisfaction and achievement from long hours was weighed against the time he spent with his family. Boundaries around working time were introduced to ensure that Sam was able to spend time with his children. Up until his children turned 15 years, Sam would be home by 5.30pm each night for family dinner (this was well known amongst his colleagues who often reminded him that he needed to leave the workplace for dinner). Despite the physical demarcation between work and non-work time, the mental fixation to solve problems persisted: “So I was physically there, but in some cases I might not have been mentally there (respondent laughs)”. 

There was a sense from both interviews that perhaps Sam’s work had had a negative effect on his family life. Work was said to have a reasonably high priority in Sam’s life; although he thought his wife would have rated work as having too high a priority to him:

... she just would know in some cases that I think about (yeah, yep) (respondent laughs) work instead of you know, maybe years ago, about the kids. In a way maybe it’s now easier anyhow because the, now the kids are grown up and it’s just the two of us, so yeah, there is less family commitment stuff, yeah.
While Sam’s aversion to upskilling was largely based on his avoidance of having to work hard, there were still aspects of his job that required learning. Although he had no motivation towards learning pure IT technical based skills for work he compensated with interests in his non-work domain. Being a person who liked the idea of problem solving, Sam was seeking achievement from learning new things outside of work, such as bridge:

*I find it more exciting now to learn things outside of here, like learning bridge (yeah) and all the rules. That’s reasonably exciting, but to – I have to learn how [pause] to [pause] write stuff to work on the web (yep) I don’t have much motivation to achieve that (yeah, yep).*

Sam knew that his lack of IT skilling was detrimental to his future employability with the firm. However, he was, to some extent, powerless to act, conceding that he had very little control over his future.

**Intended Career Trajectory**

A diminishing client base and cessation of one of the firm’s software products raised some uncertainties about the longevity of Sam’s role: *“because I’m [in my 60s] doesn’t worry me too much you know but I could see it become nothing to do for me anymore here.”* Sam’s future at the firm, with skill sets that were becoming increasingly obsolete and unmarketable, was marking the end of his career. Clearly in a state of flux regarding the end of his working life Sam recognised that the end of his career could be out of his hands. Whilst his preference was to retire on his own accord, Sam acknowledged that the end of his career could be from his ‘redundancy’ in the firm or possibly his resignation - prematurely precipitated by unsatisfying, unchallenging work. Either way the termination of Sam’s career did not appear to be cause for celebration, as illustrated in the next quote.
Yeah, ah, you know, what the official policy is that they’ll always find something (yeah). In a way I’m not worried that they would sack me but I’m not sure (respondent laughs). Maybe I should but I’m not. In a way because in way if I would lose my job I, I could retire now and it wouldn’t be a disaster (yeah). Maybe would be a, a blessing (respondent laughs) (yeah). So that’s [pause] (hum) you know suppose in the back of my mind if, if the work will become, ah I wouldn’t like it anymore then I’ll just say had enough and, and resign.

Summary
The main purpose of this chapter has been to present the experience of intense work for seven individuals who work in IT. “In all its particularity and ordinariness” (Stake 2000 p.437) the case study presents the case’s own issues and interpretations through a thick description of the intense work experience. This chapter illustrates the multiple constructions of individuals’ experiences of intense work and its interactions with the non-work domain of their lives. Summaries of each case study are provided below.

Dee’s experience of intense work emerged from finely tensioned factors that were a culmination of her personal attitude to her work and organisational structures related to workload, including sales and performance. Underpinning Dee’s intense work agenda was the pursuit of success, which was exacerbated by a fear of failure and internalised projections of age in the workplace. Dee’s “timeline” approach to life was fuelling her intense work agenda where she wanted to invest in her career, at this time in her life, prior to starting a family. This “timeline” or sequencing of life events had led to a void in her life where the intense nature of her work could not be reconciled with pursuits in her non-work life, such as travelling.

The volume and quality of work, plus the paradox of working in teams, shaped Harris’ experience of intense work. His personal pursuit of challenging work to build and progress his career and his age graded view of accomplishments were pivotal to his experience of intense work. Underpinning these experiences of intense work was Harris’
need for control of his work environment and his career trajectory, which often impacted on his stress levels. The advent of remote technologies tended to blend the physical boundaries of the work/life interface and enable Harris to work from home. Furthermore, other feelings of stress and anxiety were difficult to ascribe to either work or Harris’ non-work domains.

The size and learning curve of client projects and the accrual of billable hours contributed to Nina’s experience of intense work. Work was often not neatly bound for Nina and it often encroached on the work/life interface. This was frequently experienced when upskilling, which was deemed critical for her employability. Nina’s negative experiences working with older people piqued questions about her ability and pace to learn new technologies as an ageing IT worker. Nina’s ability to meet the demands of her work and non-work roles were exacerbated by peripheral work constraints, such as the commute time to work from home. The structure of using time in lieu created flexibility to more effectively manage work and family roles.

Charles’ work often resulted in long, irregular hours and intense phases of work, yet he gained great pleasure and achievement from working this way to build his career. Charles sought to have a degree of challenge associated with his work tasks but more recently, Charles’ life was “under siege” with his work marred by issues of quality and the loss of control. Charles’ application to his work meant that it frequently encroached on his non-work domain and had a considerable impact on his life and on those closest to him. These elements of Charles’ intense work experience resulted in the building of boundaries around his work and non-work domains to help relieve him of the stress and anxiety of his work.

For Rhonda, intense work was equated with working under pressure. The experience of pressure encompassed time and budgetary constraints, the demands and requirements of the client, the deployment of chargeable hours, whether the task was conducted individually or as part of a team, the pursuit of challenging work and, the gap between the task requirements and the skills and knowledge of the worker/s. The peripheral
constraints of extended hours of work and the meshing of Rhonda’s work and family roles created unique forms of intense work that impacted on her life.

Laurence contextualised his experience of intense work in terms of the employer’s expectations of consultants, billable hours, project planning and the pace of change in the IT sector. These experiences were further compounded when pitted against Laurence’s life course as a father with a dependent family and his quest to ensure his employability as an ageing IT worker. Skill maintenance and learning leached across the work domain resulting in upskilling outside traditional working hours at the expense of spending time with his children. The demands of learning to sustain his employability created persistent feelings of anxiety, particularly with a waning interest in technology and Laurence’s perceived difficulties with memory loss and ageing.

Sam’s experience of intense work was highly associated with pressure, depicted by emotionally feeling panicked and “firefighting”. Sam’s intense work was driven by the time-bounded nature of commercial relationships, project cycles and aggressive deadlines dictating, long working hours, and client requests that demanded an immediate focus. While these forms of intense work evoked feelings of stress, they also provided sources of satisfaction and achievement, which he felt was missing from his current work experience. The perceived efforts required for learning and the difficulties associated with ageing discouraged Sam from upgrading his IT skills. Combined with very few learning opportunities for Sam at Company B, he was trying to elongate the currency of his skill sets to equip him up until retirement. While Sam had sidestepped the pressures of learning new technologies in his later years of work, he was feeling somewhat redundant and stagnant in his role. There were pervasive elements of Sam’s work early in his career, such as the mental aspect of work, which leached across the work domain and made it difficult for him to disengage from work.

An analysis of findings has been compiled from these data that have emerged from the seven individuals’ stories. These form the next chapter.
Chapter 5 - Analysis of the Outcomes from the Fieldwork—Experiences of Intense Work in the IT Sector

Introduction

This doctoral study focuses on the various ways that intense work manifests itself for individuals through an examination of the complexities and tensions that IT working individuals experience in combining work with their personal lives (the non-work domain). The experience of intense work could not solely be contained to the domain of work and the case studies showed that intense work infiltrated beyond the work domain into the wider non-work lives of individuals. As such, this study provides a qualitative lens for understanding the experience of intense work across the work and non-work domains from the perspective of work.

This analysis seeks to understand the constructions of intense work and what impact it has on individual’s broader lives. Further, the relationship between ageing and intense work for individuals is explored. The findings are derived from the cases as well as the other data and are discussed according to three contexts, namely:

- the IT labour market;
- intense work dynamics in the workplace, and;
- the work/life interaction from the perspective of work.

These three contexts emerge from the case study data and inform the conceptualisation of intense work. While each context is discussed in turn in this chapter, the conceptualisation of intense work and its impact on individual’s lives will be detailed in Chapter Six.
The IT Labour Market

This section focuses on factors that emanate from the IT labour market that can create an intense work experience for individuals who work in the sector. For ease of discussion, I will attempt to discuss each factor separately, where possible. However, it is evident that some of these factors are inextricably linked. These factors include the following: employability, with a focus on the intersection of employability and age; and the upgrading of IT skills across the life course. The upgrading of IT skills across the life course includes a focus on: the demands of upgrading skills with responsibilities in the non-work domain, such as parenting; and perceptions of age and the upgrading of skills.

In the life course literature, an individual’s education could be viewed as an interdependent trajectory to those of health, work and family (Elder 1985). In the context of IT work, formal training and informal learning have been viewed as part of the work or career trajectory, and therefore, they have been discussed in this section on the IT labour market.

Employability

The notion of employability and its pursuit appeared to create an experience of intense work for individuals. Here, employability is understood as “the capability to move self-sufficiently within the labour market to realise potential through sustainable employment” (Hillage & Pollard 1998, p.12). The pursuit of employability could, in reality, take on many guises. However, across the cases, it presented strongly in terms of upgrading skills and the individualisation of careers. While the former is a topic that has been discussed on its own later in this analysis, it is mentioned here in the context of employability. Although the topic of employability underpins much of this analysis, it has been discussed here as a separate section given its association with the experience of intense work.

Many in this study, particularly those from Company A who were employed in the high-skills end professions, recognised that their employability could be sustained by being conversant with current technologies that were leading edge and in demand in the marketplace. Hence,
the upgrading and the maintenance of skills and knowledge were viewed by some individuals to be inextricably linked to employability. This was clearly evident, for example, with Laurence, who likened skilling with survival. His choice of projects and subsequent investment in learning new skills was based on the perceived likelihood that these project experiences would provide pathways to optimal employment opportunities.

The employability offered for sustained upgrading of skills provided individuals a sense of security – that is, an ability to be competitive in the job market if looking for work. Hence, in the context of this study, the concepts of employability and security appeared to be tightly enmeshed. The possession of in-demand skills and knowledge aided individuals’ marketability and instilled participants with confidence that enabled them to exercise agency over their employment. Furthermore, it facilitated job mobility, offering individuals fluidity to move across positions to seek productive employment and opportunities with salient conditions. Mobility enabled individuals in this study to be the driver of their careers and to seek out the most favourable employment positions. As illustrated in Laurence’s case, he left Company A after 12 months as he felt that the organisation was no longer able to provide him with projects where he would be working with marketable skill-sets. These findings could be expected from people who work in SMEs given the limited career progression and stability for IT workers in organisations of this size (Baldry et al. 2007; Marshall, Craft Morgan and Haviland 2010). Unlike large organisations where training could be driven by employee preference smaller sized organisations do not have the ability to predict or recognise the long term demand for skills (Baldry et al. 2007).

Overall, the pursuit for employability underpinned experiences of intense work for individuals. This was particularly evident in the stories of Dee, Harris, Charles and Laurence. With intentions to start a family in the future, Dee’s attitude to work hard and accelerate her career development through the building of an experience base was critical for her to do in the present time (as a younger worker) to ensure a more seamless entry back into employment after starting a family. Charles’ desire to build and develop his career early in his working life promoted his intense work agenda. These cases show support for Shih’s (2004, p.223) argument that IT workers are “entrepreneurs of their own careers.” That is, IT
workers ‘manage themselves’ through investment in new skills and development to remain marketable. As mentioned previously in the doctoral study, agendas of intense work were driven by individuals to maximise their employability. For example, Laurence stated: “... if I don’t keep learning I’ll be out of a job”. Furthermore, these experiences reflect the notion offered by Cooper (2000, p.390) who suggested that: “one’s career is one’s own possession, independent of any particular firm. Thus, concern over employability may serve as a powerful tool for creating identities rooted in work.” The structure of IT work in these small sized organisations was seen to create a climate where the pursuit for employability was detached from the organisation and placed on the individual. This is indicative from Laurence’s comment above; however, further support was found in Company A where the expectation of management was for individuals to “… go out there and do it [training] in your own time and teach yourself how to do it”. While the studies by Cooper (2000) and Shih (2004) were not explicitly about the phenomenon of work intensity, they provided a rationale for this doctoral study’s examination of intense work in the IT sector. Findings from this doctoral study indicated that issues of employability were related to the experience of intense work – an assumption inferred from the broader literature.

By comparison, the flip-side of not upgrading one’s skills and knowledge was the negative effect it could have on one’s employability. Neglect or failure to pursue employability could lead to redundancy and potentially, to the end of one’s career. At the moderate end, Nina could see her position of reduced value as an employee because she did not introduce new technologies to her team. At the most extreme end, Sam, who avoided skilling in the later part of his career, was in a position of vulnerability. This issue will be discussed in greater detail below.

**The Intersection of Employability and Age**

The perceptions associated with age were far reaching and manifest diverse experiences of intense work for individuals at both ends of the age spectrum. There was a sense that employability and issues associated with employment became more precarious with older age. This was evident in the cases of Laurence, Sam and Rhonda who recounted different experiences in their employment history that indicated some risk associated with ageing.
The notion of reduced control over one’s career trajectory with ageing was common amongst older individuals in the study. Sam predicted a similar fate to Laurence although he had taken a different path. Where Laurence had invested in his human capital to maintain some influence or control of his career, Sam appeared to have side-stepped the pressures of upskilling in his later working life which resulted in what he thought were diminished marketable skills. Sam was now in a position where his projected exit from the firm would likely be at the discretion of his employer rather than of Sam’s volition. Studies of work environments exposed to persistent technological change showed that depreciation of human capital led workers to early retirement because of their reduced attractiveness in the employment market (Bartel & Sicherman 1993; Brooke & Taylor 2005; Karoly & Panis 2004). However, there is evidence from this study that illustrates how the potential avoidance of an intense work experience associated with upskilling in the IT industry may result in skill redundancy. While Sam’s career had ‘survived’ without upgrading skills it had come at the expense of control. He had not been successful in finding employment elsewhere and felt that his career was at the mercy of his employer. He reported a lack of satisfaction from his work. These findings present interesting ramifications for the ageing worker and is marked as an area for future research. How can ageing IT workers manage the intensity of meeting the demands of upskilling with quality work across their working lives? What is this experience for male and female IT workers? Findings in relation to upgrading of skills and knowledge were also discussed earlier in this analysis on the topic of employability.

The perceived value of age within the organisation influenced some of the insecurities experienced by ageing individuals and was seen by participants to contribute to their intense work experiences. Fears of long-term joblessness is a common theme in the IT industry with McMullin et al. (2009) reporting about 50% of respondents over the age of 40 years feel worried “quite a bit” or “a great deal” about their ability to be competitive in the job market should they lose their job. For example, higher salaries associated with older workers were a concern for Laurence as he got older. However, further insecurities were noted. The impending sale of Rhonda’s employer’s business, for example, sparked thoughts of potential joblessness for her as she perceived older workers were not valued or respected. Rhonda had clear concerns about the potential for negative age projections within the organisation and in the labour market, and its impact on her employability. Although it was not the sole reason...
for her departure, the potential sale of the company and feeling that older workers were undervalued led to Rhonda's exit from the company and the start-up of her own business. While occupying a position of power as an owner, which is quite different to that of a worker, Rhonda's pursuit to be “master of [her] own destiny” implied that she was trying to maintain control over her career amidst what she perceived as ageing stereotypes and perceptions in the market.

At the other end of the age spectrum, it was the operation of age-graded views that had variable influences on individuals’ career trajectories and in some cases, had a profound impact on their work and the experience of intense work. While Barrett (2004) and Rasmussen and Johansen (2005) highlighted the vulnerability of young, inexperienced IT workers who, in exchange for developing an experience base, worked autonomously on exciting projects that resulted in long, hours of work the vulnerabilities of Dee and Harris emerged in multiple ways. For example, in Dee’s case, the internalisation of comments from a colleague about Dee’s age and gender were, amongst other factors, one of the underlying drivers of her intense work agenda to succeed and legitimise her authority in her new role. In Harris’ case, his parents’ perception of age-graded accomplishments and career progression had clearly influenced his own thoughts. His view was that hard work was expected in early career roles where one could make an investment to progress one’s career with limited constraints from other facets of life. Harris and his parents’ age graded perceptions of career progression and accomplishment were shaping his intense work experience. These age-graded perceptions have interesting consequences in light of contemporary labour market factors. Given that life expectancies are now higher than ever before, workers are expected to work for longer (more years of working). With the abolishment of retirement age in Australia, social policies encourage workers to retire around 65 years of age (some policies promote gradual retirement from the workforce with some attachment to work). Similarly, it is not uncommon for workers to experience two or three major career changes in their lifetime. This means that workers could be starting new careers later in their working life. These phenomena beg the question of how similar age graded perceptions will translate in workplaces of the future. Furthermore, what is the experience of intense work in the context of employability (or building new careers) at different stages of the life course?
As mentioned earlier, the salaries that older workers were able to achieve in the high-skills end professions potentially threatened the security of employment for older workers. These older workers, who had spent considerable time in high-skills organisations, were likely to have higher incomes than new or younger entrants. Maintaining a higher salary in the organisation presented as a source of insecurity, and was perceived as a potential threat to the employment of the older worker. For example, Laurence recognised that his salary could fund three younger employees who could do the same job as him. However, this was not the view of Laurence’s employer whom, perceived age as an arbitrary characteristic of performance in the organisation. Laurence’s perception of associating risk with age was perhaps based on earlier career experiences where he had seen how past fluctuations in the global economic climate led to the termination of the most expensive labour contracts in the firm, which were most often held by older workers. While Laurence had made a considerable investment to increase the longevity of his career, he ultimately believed that he had reduced influence over his future career trajectory. Consequently, Laurence expected his career to end through retrenchment rather than his decision to retire from work. Sam was in a somewhat similar position.

The next section will discuss the challenges of maintaining employability through skill acquisition and development at different stages of the life course. In particular, the pursuit of employability was found to be pertinent to the experience of intense work for individuals with other roles in their non-work domain, such as parenting. The challenges related to the upgrading of skills have also been explored in terms of ageing, most notably, workers at the older end of the spectrum. However, these themes that emerged from the data need to be considered in light of the study’s small size and, therefore, are highlighted as areas for future research.

**Upgrading of IT Skills across the Life Course**

The pursuit of employability through the upgrading of skills and knowledge replenishment was difficult to maintain across the IT working life. Upskilling presented significant challenges for IT individuals regardless of the constraints from other trajectories or roles in
the non-work domain. Persistent technological change in the innovative sectors and its consequences for ongoing learning were pervasive. Often leaching from the domain of work and impacting on the individual’s non-work roles, the upgrading of skills and knowledge required extended hours of work. In Charles’ opinion, workers’ “will not keep up with technology if [they] only are doing it as a job”.

The incidence of rapidly changing technologies could translate into steep learning curves for individuals, like Nina, who had often worked on multiple short term projects, at any one time. Often, the experience was further compounded for individuals who worked against a billable hours structure and, even more so for individuals who could not bill their clients for the learning or training required to complete the job. The combination of these time-intensive work practices tended to result in long, work hours where individuals were not directly compensated for the time that they spent working. For instance, Laurence was quoted saying, “no company ... is willing for you to learn technology while ... on the job.” In addition to Charles’ job, he worked at least 40 hours each week upgrading his skills early in his career. Work of this nature often spilled into the non-work domain and made it difficult for individuals to manage the work/life interaction that is, meeting the responsibilities of roles in both domains. The discrepancy between billable hours and hours of actual work is a theme that is discussed further in this chapter.

There was a perception that the upgrading of skills was better suited to individuals who were without any form of constraint on their working lives. “Time” and “opportunity,” as suggested by Charles, were required to maintain and develop skill sets and a knowledge base to assist with elevating one’s position in the employment market. Consequently, the upgrading of skills and acquiring knowledge were perceived to be an easier pursuit for workers without constraints or responsibilities, such as caring for children.
Managing the interaction of intense work with responsibilities in the non-work domain was seen to be challenging for individuals who were in the high-skills end market, where upgrading skills and knowledge were critical to their employment. No doubt, this sector of IT work was characterised by an environment of open and competitive market value, driven by innovation and rapid, technological change (Asia-Pacific Economic Cooperation 2002; Milliken & Dunn-Jensen 2005).

There was great variation amongst the cases with respect to their experiences of managing intense work alongside the demands of other responsibilities such as parenting. While statements made in relation to gender are preliminary - given this study’s small numbers - and lead to questions for further research, the experience was somewhat different for fathers and mothers. For the men in this study, the role of their wives seemed critical to the raising of their children, and potentially removed any career barriers they faced when combining roles in their multiple domains. Fathers were perceived to have clear, gender specific family/work roles where the husband was a breadwinner and the wife a homemaker. These gendered roles enabled the fathers in this study to pursue careers which often resulted in working long, non-traditional working hours. For example, on Charles’ own admission, he would not have been able to achieve the successes in his working life had it not been for his wife filling the role of care giver and homemaker. Similarly, Sam, who ensured to be home each night for dinner with the family, would often continue working after dinner.

In this study, the interviewees’ spouses were not interviewed. Consequently, any links to Perlow’s (1998) study of boundary control and spousal response are tentatively made. However, Perlow’s categorisation is useful for applying to this study of intense work to understand how IT fathers manage roles in both domains. Based on Charles’ accounts, he would be viewed as a ‘careerist’ - he could meet the demands of work because his wife was able to manage the non-work responsibilities. Perlow (1998) suggested that these workers were the most likely to experience career success, a feat which Charles had experienced as the owner of a successful company. Laurence could be viewed as an ‘acceptor’ of boundary control placing work as his first priority (as did Charles). However, the context surrounding
his intense work experience and the outcomes of placing work as a priority was different from Charles. Laurence’s intense work experience was fuelled by the need to maintain employment security through conversancy with skills and knowledge, which was largely underpinned by his responsibility as the sole family breadwinner. While his preference was to socialise with his family on weekends, his perceived position of insecurity in the market was driving him to upgrade his skills, to ensure that he was employable and could continue to provide for his family. This situation clearly highlights the challenges for parents and how responsiveness on the home front may in fact lead to negative career outcomes as found by Perlow (1998). Laurence’s agenda was largely shaped by his perceptions of being an older worker and the time he had spent in the industry (this will be discussed later in this chapter).

Based on some circular logic, Laurence’s first priority was to financially support his family through investment in his human capital which deprived him of time with his family. While his pursuit of current skilling was fulfilling his need to be employable, Laurence’s decisions to spend time working rather than parenting led to feelings of guilt that he was not adequately fulfilling his role as a father. Such feelings were also experienced by Sam. However, in Sam’s case, his wife expected him to perform certain responsibilities or activities in the home which clearly impacted on his ability to meet work demands. For example, he had to be home for dinner every night by a certain time. Sam experienced conflict and feelings of being torn between the demands of his work and family.

The findings of this study support the view that some IT parent workers were likely to experience hardship when trying to attend to navigating skill upgrade while juggling responsibilities such as those attached to the family. The status of being a parent was perceived to have some negative consequences for individuals’ competitiveness in the labour market, and overall, their career. For example, Laurence, who compared himself with his child-less peers/colleagues, saw himself as being in a position of reduced attractiveness as an employee given the demands of negotiating upskilling and parenting. Efforts to successfully meet responsibilities in the work and non-work domains often meant there was limited time for learning and an awareness of new developments in the IT sector. When Laurence spent time with his children, he often reflected that the time could have been spent on learning to broaden or deepen his skills. Perlow (1998, p.346) noted that this “resistance to boundary
control, especially when motivated by a need to meet family obligations, hinders employees recognition and promotability.”

Furthermore, the findings from this study showed that mothers were perceived to experience career challenges given their responsibilities for child-care within their relationships. Nina believed that her career had been jeopardised since becoming a mother given the time constraints to invest in her career. The combined efforts to fulfill work and family roles led to a lack of time for learning new skills that impacted on her perceived degree of usefulness in the workplace, which could potentially limit her future employment intentions. While it is well documented that some IT working mothers experience significant disadvantages managing work responsibilities and child-care (see Adams & Demaiter 2008; Crump & Logan 2000; Crump, Logan & McIlroy 2007; Perlow 1998) this study is one of the few that have used case study methodology to look at these issues in relation to the experience of intense work.

Responses from the younger participants in the study, Dee and Harris, each of whom had no children, further suggested that child-lessness could provide opportunities for upgrading one’s skills which were critical to career success (although both of these workers were no longer operating in pure, IT roles where the demand for skill currency is paramount). Harris was not perplexed about the need to upgrade his skills because, as he stated simply, he had the time in the evening to learn, if it was required. His point illustrates that requirements for learning do not present any obstacles for child-less workers as they do for parent IT workers. Dee, on the other hand, was not likely to pursue formal training nor informal learning. Her intention was to focus on working hard to excel in her current position prior to starting a family to increase the likelihood of making a smooth entry back into the labour market. This notion implied that maintaining one’s career with the demands of parenting was foreseen as being somewhat difficult – an assumption that was inferred from the literature (see Adams & Demaiter 2008; Demaiter & Adams 2009; Rasmussen & Johansen 2005). Dee’s strategy for managing the pursuit of single trajectories no doubt reflected the intense nature of IT work and the perceived disadvantages women can experience when wanting to combine work with the bearing of children. The sentiments about the ‘problem’ of combining mothering and work which were captured in Crump and Logan’s (2007) study where young, female child-less
IT workers expressed concern about the management of work and mothering were embellished upon in this doctoral research.

Crump and Logan (2007) suggested that delayed childbirth in their sample was most likely a condition of the long work hours and poor flexibility in the industry. Yet, the findings from this doctoral study indicated that the management of work and mothering responsibilities appear to be more complex than attributing cause to the IT workplace. For Dee, part of her intense work experience was internally driven by a desire to succeed at work and increase her employability in an environment where she had internalised ageist and possible sexist comments relating to her performance in the role. Her pursuit for employability at this time in her career was underpinned by the perceived difficulties that she could envisage in her future, combining work and family. This case provides insight into the complexities and tensions in Dee’s life combining her aspirations in both her work and personal life. It also justifies the use of case study methodology for the purposes of this study.

Perceptions of Age and the Upgrading of IT Skills

Up to this point in the analysis the focus has been on employability and the life course. Skill upgrade and knowledge acquisition were central to maintaining employability in IT work, particularly for highly skilled professionals, given the emphasis on innovation and persistent, technological change. The theme or perceived connections between age and learning has been discussed in greater detail, particularly in relation to the operation of age perceptions.

Individuals’ perceptions of older IT workers and their own projected capacities as ageing workers in the industry were seen to challenge the individual’s pursuit of learning and upgrading of skills towards later life. Some individuals, like Nina and Laurence, acknowledged a slowing pace in their learning abilities which they attributed to the processes of ageing. Similar attributions have been reported in the literature with ageing associated with a decline in memory, attention and processing speed (Charness & Czaja 2006). However, there is a paucity of research that is linked specifically with intense work in the IT sector.
Internalised perceptions of slowing capacities to learn efficiently were associated with concerns about reduced competitiveness in the labour market. These thoughts influenced an individual’s confidence level which was likely to impact on the perceived ease of acquiring new skills (Cau-Bareille & Marquié 1998; Jorgensen & Taylor 2008a). Broader WANE studies, such as Duerden Comeau and Kemp (2007, p.223) found that “age or growing older was understood as the antithesis, that is becoming slow, awkward and ill-suited to the field of play.” Further concerns exist for individuals in innovative, leading edge professions. The views of participants in McMullin, Jovic & Duerden Comeau’s (2007) study showed a link between technological innovation and skill with youth, suggesting that older IT workers could face disadvantage in the context of innovative IT employment opportunities. In an industry driven by rapid change and high pace of work, older IT technical workers were perceived to have diminished marketability and value than younger workers.

Of concern was that the perception of slowing capacities was seen to deter older individuals in IT from facing the relentlessness of upskilling. Both Nina and Laurence had expressed some frustration about upgrading skills as older workers later in their careers. Nina was concerned about her capacity to compete with younger workers. In addition, Sam had also ascribed declining capacities to ageing. For Sam, the difficulties involved in learning as an older worker was one of the factors that had discouraged him from upgrading his skills and knowledge in the field. His hesitation to learning was related to poor memory and an inability to retain the learning if it was not immediately applied to a work problem. Side-stepping the pressures related to learning new technologies and, therefore, avoiding an intense work experience provided Sam with time to pursue his health interests in his non-work time. However, it had come at the expense of feelings of redundancy and low self-esteem. Perceived as having poor employability (which Sam recognised from unsuccessful attempts at finding alternative work), the future of Sam’s career was at the mercy of his employer.

While these cases provide insight into the experience of intense work for older workers, questions remain about the longevity of careers for individuals who experience intense work. One area marked in the literature review for exploration focused on the intense work experience and feelings of incapacity to pursue intense work in later life. Some of the case
studies, particularly Charles and Nina’s accounts, provided rich snap-shots that addressed sustained intense work across the life course. With respect to the upgrading of skills and ageing, McMullin, Jovic and Duerden Comeau (2007, p.301) suggest that a “lack of technological skills at any age presents the potential for being ‘left out’, particularly in the realm of employment.” In other words, being in possession of unmarketable skill sets is likely to diminish a worker’s attractiveness regardless of their age. However, the question to be addressed is how IT workers can maintain the upgrading of skills into older age? Ongoing learning agendas across the working life were found to be exhausting, as seen for Charles, given the interaction with activities in the individual’s wider life.

Clearly, the investment in human capital later in life was a costly pursuit given that older workers have less time to recoup their investment over a shorter working career (Jorgensen & Taylor 2008a). Sam had maintained a continuous learning agenda to a point but had not continued with it late in his career. Given that people now have two to three career changes, this may not be such as issue for workers coming through the generations today. However, it does present an issue of individuals have no intention of changing careers. On top of his feelings of uncertainty and anxiety surrounding what he perceived to be declining capacities, Sam also mentioned the difficulties of learning new systems with the evolution and change of software from year to year. The learning of modern systems required re-configuration of his learning which resulted in frustration and a need for time to effectively learn. There was confluence from these findings with those from Amalberti, Pélegrin and Racca (1991 cited in Cau-Bareille & Marquié 1998) study where poor procedural knowledge of older pilots led to poorer test results than those of their younger colleagues who were more familiar with various aircraft. However, these results call for some cautious interpretation. In relation to Sam’s case, Amalberti, Pélegrin and Racca (1991 cited in Cau-Bareille & Marquié 1998) findings suggest that Sam might have experienced difficulties with his procedural knowledge if he had not maintained ongoing, persistent learning of software. Pilots had poorer results when working with aircraft models that were quite different to the models they had experience with. These findings suggest that it is perhaps one’s experience base rather than their age that might affect their procedural knowledge. As an aspect for future research, it is suggested that perhaps persistent, ongoing learning is more effective for IT workers rather than trying to upgrade skills over large or long periods of time. However, as mentioned
earlier in this analysis, with career development and training opportunities somewhat limited in SMEs, individuals will most likely need to self-manage their learning opportunities in their non-work time.

The slower pace of learning, poorer confidence levels associated with ageing and the unrelenting pace of technological change impacting on employability seemed to be highly problematic for the older individuals in this study. Yet, there needs to be some caution attributing these findings to the factor of age. Compounding the experience further for older individuals was the dynamic interplay of ageing with other work factors which could exacerbate the experience of intense work. Charles, who had been in the industry for nearly 20 years, implied that an excessive workload had impacted on his ability to be productive and capable which had led to a waning interest in technology. The employment structures in organisations, such as employment on short-term projects and the use of a billable hours structure (as experienced by Nina), often resulted in steep learning curves across multiple projects. Individuals needed to upgrade their skills for each project which could be taxing for older individuals in light of perceived slowing capacities and negative feelings towards learning. The combined experience of these factors could most likely lead to excessive work that leaches into an individual’s non-work domain.

**Intense Work Dynamics in the Workplace**

A key argument in the literature review of this dissertation justified a contemporary study on the phenomenon of work intensity that reflects the working conditions of the Australian IT landscape. While the preceding chapter provided details about the IT labour market, this chapter examines the workplace and the factors within it that have a considerable influence on the individual’s experiences of intense work. The key workplace factors that influenced individuals’ intense work were in relation to project planning, workloads and the volume of work – including workloads influenced by client demands, organisational re-structuring and work quality, organisational structures - including billable hours, work performed in teams, and employer support. The pursuit of challenging work is then covered.
A key theme that emerged across these factors concerned the degree of influence and job control that individuals perceived that they had in the workplace and how it affected their experience of intense work. According to Jacobs and Gerson (2004, p.1), “aspects of a job, such as flexibility, autonomy and control are likely to matter as much as working time,” which was evident in the findings of this study. Some of these factors are included in the discussion below and do not exclusively pertain to the workplace and could also overlap with broad, labour market factors.

**Project Planning**

The deployment of a billable hours structure and of project planning schedules were sources of intense work for individuals in this study. Consistent with other IT studies (Cooper 2000; Hyman et al. 2003; Sharone 2004; Shih 2004), work was structured around project time rather than clock time, where an individual’s work was guided by deadlines and, in some instances, the manager’s co-ordination of the group or team. For instance, Laurence’s narrative raised the notion of instituting more aggressive deadlines to meet project deliverables which required additional long hours of work. The commercial nature of the relationship between clients largely shaped project deadlines giving managers scope to manipulate working hours in order to meet deliverables could result in gaining more work from their employees.

The experience of intense work and its associated emotions of anxiety and stress were attributed to the organisation’s conditions, generally the delivery time to secure the business contract. Securing contracts and navigating the tendering process were often competitive for organisations. While the organisation’s reputation and prior experience could influence the award of work to organisations, decisions were also based on the cost of the product or service and time requirements for its delivery. It was not uncommon in the industry for IT consulting firms to agree to terms below cost to secure new business opportunities (Rasmussen & Johansen 2005; Yakura 2001) which was supported in this study. Harris said:
We consistently – and I say we as in the industry – consistently underestimate the work required. We consistently sign up to dates that are hard to deliver on, um and as a result we work people hard to try and achieve those outcomes. Um, I’d say 90% of projects are like that. So that’s where the high intensity and the high stress comes from.

The experience of intense work and stress for people emanating from the organisation’s pursuit to secure the business and achieve project milestones challenged the working capacity of their people. The consequences of agreeing to tight deadlines and underestimating the amount of work required for the project generally translated into longer days of work for individuals.

A tension existed for organisations between maintaining their employees’ hours of work and meeting the demands of the market. It appeared that organisations in the industry frequently put the needs of the client ahead of those of their employees as a means of managing labour supply and demand. For instance, Laurence mentioned a previous project experience where his company could not deliver a project on budget. The outcome for individuals was to work additional hours without remuneration, the cost borne by them. The prevalence of this pattern of behavior was common across the cases. Harris could see that the nature of underestimating the hours of work required for the completion of projects needed to be more responsibly managed in order to sustain its workforce, particularly in a climate of ageing. Harris commented that:

... workers in their 40s aren’t going to want to work those you know, 12 hour days, 14 hour days, coming to work on the weekend to make a deadline style projects.

While Harris suggested that it was older IT workers who were affected by the longer working days in the industry, a further inference was made to individuals who had worked in the sector for some time or those who had commitments apart from their career trajectory. He further implied that individuals working in IT could not sustain excessive hours of work over their working life – the nature of IT project planning needs to shift to address the needs of the
workers. The unsustainable nature of long work hours has been captured in the works of Winnubst & Schabracq (1996) and Wichert (2002) on role overload which is discussed later in this analysis.

Work was often organised and structured to leverage the most optimal process and solution. While processes of structuring work could be efficient and effective in the use of resources to produce an outcome, they could also promote intense work from individuals. Charles' story of working 18 hours non-stop is evidence of the intense nature of this type of work organisation.

**Workload**

Excessive (or increased) workloads were just one of many internal labour market factors that contributed to the experience of intense work. Not only did individuals have to manage workloads that clearly exceeded what was physically, cognitively and emotionally possible within a limited time allocation but workloads were a source for additional concerns to flourish, further heightening the sense of intense work. Workloads have been discussed in terms of client demands, organisational re-structuring and work quality.

**Workloads Influenced by Client Demands**

Workloads were greatly influenced by the demands of clients. The Fourth European Working Conditions Survey (EWCS) found that 69% of employees reported that their pace of work was dependent on the external demands of their clients or customers (Burchell et al. 2009). The demands of clients had the potential to create intense work environments for individuals. Extending beyond the quantitative works of the EWCS with a focus purely on pace of work, the case study data of this study revealed that the demands of clients often restricted the degree of job control that participants had. For some, such as Sam and Dee, the experience of intense work was cyclical with peaks and troughs of intense work largely driven by project milestones (for example with Sam, final stages of project deadlines generally were deemed as peaks and the most critical to individuals’ experience of intense work). With these types of projects, intensive phases of work could be identified at the outset and, therefore, individuals
could prepare for the impending peaks of intense work and the potential impact it had on their lives. However, on occasion projects did not run according to intended project plans.

On these types of projects, individuals foundered in periods of uncertainty and were at the mercy of the client. These individuals had reduced control and were limited in planning or mapping out the intensive stages of the project and how it would impact on them. As noted by Wichert (2002, p.101),

Beliefs of personal control can make people confident that they can master the challenges posed by their environment, whereas a lack of control increases a person’s feelings of vulnerability and threat.

These stages of work had the potential to create an unpleasant working environment for individuals leading to adverse consequences for their health. This was clearly seen in Harris’ narrative and his dislike for working on projects where he felt he had scope for influence over the outcome. Further, Laurence’s preference for working on smaller-scale projects enabled him to exert more influence and control.

The role of the client could displace the job control of individuals, particularly people who were consultants. Clients could place consultants in compromising situations that exacerbated the experience of intense work for consultants. The credentials of consultants could be tested by the client and on occasion, consultants felt that they had to justify or substantiate their value and worth to the project. For example, Rhonda mentioned a recent experience with an American client where she was put under pressure to come up with a solution to the task at hand. Consultants were seen as having intricate knowledge about their expert areas and there was little scope in the client relationship for consultants to be in a position of not knowing. Like, Rhonda, Nina did not let it be known to those who worked with her that she experienced periods at work where she was uncertain or was in a position of not knowing how to proceed with tasks. Not only did this create a climate of pressure for consultants but, in addition, clients could ultimately dictate how and where consultants would work which was not always a consultant’s preference.
Likewise, individuals with ‘client facing’ roles (organisational roles that deal directly with clients), could not always plan their work as it was driven by the needs of clients. Prospective clients could also influence the experience of intense work, as was Dee’s case. This meant that Dee had limited control over the influx of client requests. Furthermore, her performance was tied to number of sales and to turn away prospective clients to more effectively manage the volume of her work would most likely be viewed negatively from the organisation and impact on her performance targets.

Client demands were external to the individuals' job control and influence. Clients frequently changed project requirements, as was the case with Nina:

> usually people don’t know what they want so they plan to do that and then half way through and a), the system starts to form and they start to use it and they say, ‘Oh, I don’t want that so do that.’

Often described as “moving targets,” changes of this nature tended to result in more work for the individual that was often not billable and, therefore, constituted unremunerated work. Laurence’s story also articulates the performance of work hours at a cost to the worker: “… if the project … requires additional effort, we expect you to do it.” Clearly, reduced job control can negatively impact on the quality of the individual’s working life and other life domains. Studies by Hyman et al. (2005) and Baldry et al. (2007) support the finding that software workers with high levels of influence and autonomy had greater ability to manage their roles and responsibilities across the work/life boundary. These studies did not examine autonomy in the context of work intensity. However, the findings in this study showed evidence that the client’s displacement of a consultant’s job control could result in the emergence of intense work experiences that negatively impacts on the consultant’s job satisfaction and, thereby, heightens the experience of work/life conflict. Although the client’s changing specification requirements were a source of frustration for Nina, she did not mind meeting the client’s demands if the work was billable and if she had discretion to choose when she would complete the work. This meant that Nina did not have to perform the unremunerated work as an additional requirement in her non-work time as it would be added to the project plan. Moreover, Nina could choose to perform the work at a time that had minimal impact on the non-work component of her life, and responsibilities such as caring for children.
Organisational Re-structuring and Work Quality

A stream of the work intensity literature attributed the rise in intensification of labour to work re-organisation and alternative approaches to labour utilisation (Allan, O'Donnell & Peetz 1999; Watson et al. 2003). In this doctoral study, the qualitative data builds on the literature to show that forms of organisational re-structuring in contemporary IT organisations could lead to increased workloads for individuals, thereby, heightening the experience of intense work. The exit of Dee's two senior colleagues who were acting as her mentors resulted in a larger workload for Dee, which was just one factor contributing to her intense work agenda and feelings of stress. It was clear from the exit of these team members and the fact that their positions were not replaced that the workloads of the departing workers had been distributed across the organisation's people or perhaps delegated to one individual. Furthermore, the acquisition of Charles' company shifted the number of direct reports that he had from 20 to over 100 people. Consequently, the quality of outcomes was affected because he simply could not achieve the volume of tasks for completion at this scale. These forms of work-reorganisation resulted in greater workloads and contributed to the overall experience of intense work.

Exacerbating the experience of working with a large number of tasks was the sense that the quality of an individual's work was compromised at the expense of task completion. Such quality issues were a key concern for individuals working in high-skills end organisations, such as Harris, Charles and Laurence. Their employers (with the exception of Charles) expected individuals to be high performers with a commitment to meeting standards of excellence and producing high quality outcomes, but Harris and Laurence also imposed these values of work upon themselves. Hence, there were expectations from individuals and the firm for work tasks to be completed of a high standard within given time boundaries. Yet, the volume of work to be performed compromised the quality of the output. This had a detrimental impact on the well-being of individuals whose self-esteem was at risk of criticism from peers and superiors for poor quality work.
For Charles, the task of being overextended and working on a large number of tasks (referred to as work overload) was not sustainable for long periods of time, as captured in Wichert’s (2002) work from the JIWIS. Wichert (2002) commented that the experience of work overload requires employees to draw on reserve capacities which can lead to exhaustion and decreased performance. Short term exposure to work overload was not a concern for individuals but exposure to chronic overload of work tasks for extended periods of time could have debilitating effects on workers. Furthermore, Winnubst & Schabracq (1996) highlighted the role of control, and associates an individual’s lack of control with work intensification and stress. Winnubst & Schabracq (1996) associates too high work pace, physically burdening tasks, too many tasks, overtime, too few possibilities for recuperation, and too difficult assignments as elements of work overload. When individuals can no longer achieve their task requirements a loss of control over task performance ensues. This can evoke stress reactions and a breakdown of task performance and have consequences for an individual’s evaluation of their performance and value.

It appears from Charles and Harris’ cases that these experiences did in fact occur. Harris was questioning his value to the firm and experiencing stress. In Charles case, he recognised his lack of control at different times in his interview. In particular, his description of his life being “under siege” had led to his first sick day in 20 years. On the other hand, committing to quality rather than managing a high number of tasks could result with individuals in the organisation being perceived as slow workers who could not maintain the firm’s pace of work. This could also have adverse consequences for individuals and their careers.

On another level, Wichert (2002) and Winnubst & Schabracq’s (1996) findings have applicability for ongoing upskilling across the life-course. While Winnubst & Schabracq (1996) suggest that it is a lack of control that can lead to work intensification and stress, the rapid pace of technical change in high-skills end professions could in fact create a climate that displaces individuals of control. This no doubt could be illustrated in Charles’ comments about his waning interest in learning technologies because of a lack of “time” and “opportunity”. Charles’ account suggests that sustaining employability through ongoing learning in one’s career could be a concern for people who experience a lack of control over
their work. His experience of upgrading skills was in the context of his job overall and, therefore, the pursuit to upgrade was likely to be impacted by other factors that could result in an intense work experience. As mentioned earlier, this remains an area for future research.

Organisational Structures

The analysis will now examine the organisational structures that influence the intense work experience of individuals. This section has been discussed in terms of a billable or chargeable hours structure, work performed in teams and employer support.

Billable or Chargeable Hours

The structure of billable or chargeable hours deployed in firms was a highly contentious contributor to intense work in this study. The main purpose of a billable hours structure is to record the transformation of time into money (Yakura 2001). Furthermore, the valorisation of time acts as a measure of performance and control (Yakura 2001). A key theme for individuals using billable or chargeable hours in this study was the precarious nature of billing. The question arises as to what constitutes a billable hour and the question of quotas with respect to the impact on the experience of intense work.

The quota of billable hours presented clear pressures for individuals’ management of working time. Billable work policies were different at the two employing organisations: Company A expected consultants to accrue 40 billable hours per week across projects of variable size - from a few hours to six months in duration – whereas Company B expected consultants to bill at least 27.5 hours per week with an overall working week between 37.5 and 42 hours.

Despite issues of legality, meeting a quota of billable hours was more than just the accrual of working hours for many of the individuals in this study. Hours of work did not simply equate to work to be charged to clients. There was a requirement to provide clients with an outcome, result or solution in the estimated project timeframe. Billable hours did not always
accommodate the complexities and problems often encountered when performing work and, therefore, much of this work was not considered a billable hour and had to be borne out of the individual’s non-work time. For instance, Nina’s narrative captures the complexity of determining who “wears” the extra time – is it charged to the client, the employer or is it worn by her?

As a consequence, the size of projects, use of technologies and the number of projects individuals worked on at any one time all influenced the real hours of work for individuals. For Nina, short-term projects, the time required to pursue learning agendas for new technologies and products, and work on more than one project generally resulted in considerable work that was not deemed billable. The pressure of these factors meant long work hours for individuals and, in turn, made it more difficult for them to reconcile work and family trajectories.

While the deployment of a billable hours structure can act as a form of management control (as discussed earlier with project planning), it was also used to measure the performance levels of its people and was seen as a reflection of their value to the firm. In Company B, individuals with the highest number of billable hours were seen to be the ‘real’ performers in the organisation and were often commended at quarterly meetings for their efforts. In Rhonda’s opinion, the company viewed these individuals as setting the benchmark for high performance which thereby sparked some tension amongst colleagues. The record of billable hours was used as a gauge of how individuals were tracking overall and with whom they would need to compete for promotional opportunities. Rhonda believed that a billable hours structure also fostered a sense of security for individuals with high billable hours, who were seen to be the most valued in the firm given the translation of billable units to income.

Yet, the billable hours structure was clearly not an accurate measure of a worker’s performance. It did not measure the performance of workers who were not operating within this structure, such as Harris and Dee. Billable hours created a source of angst for individuals particularly those who worked long hours on significant, core business activities not deemed
billable. For example, a large part of Rhonda’s role as a senior consultant at Company B was to assist with sales and pursue new projects. This type of work was not billable and, therefore, did not accurately reflect her hours of work nor her performance nor her value to the firm.

While billable hours contributed to the experience of intense work for those who were employed into the structure, there was some relief for Dee and Harris, who had recently moved into positions not governed by them. Harris felt that the absence of working to billable hours structure no longer provided a measure of his value to the firm. In turn, this resulted in a form of anxiety that he associated with his work.

**Work Performed in Teams**

The structure of work teams had the capacity to either exacerbate or ameliorate the experience of intense work for individuals. The interdependency of team work structures meant that working with competent, high performing colleagues actually reinforced high performance norms of working hard and high achievement (achieving) results. For Harris, the norms perpetuated from working in high calibre teams pressured members to work hard or risk being left behind. The inference here was that workers who could not keep up, were less likely to receive promotional opportunities and perhaps could be managed out of the organisation. Furthermore, it supports the individualisation of IT careers, providing evidence that individuals who work in IT can drive their own intense work agendas. There appeared to be similar norms operating across levels of hierarchy. When Harris was promoted as a leader of these teams he continued to reinforce these norms to earn the respect of his peers and support his mentor’s decision to promote him. This was a practice frequently taken up by managers in Perlow’s (1998) study of boundary control where managers expected the same behaviour of themselves as they expected of the individuals they managed. Likewise, Rhonda’s drive to excel at challenging tasks was fuelled by similar sentiments of the other directors with whom she founded the company. The collective values and behaviours of individuals set up the performance culture in the firm and when highly cohesive it could be extremely powerful, as we have seen in the case of Harris and that of Rhonda.
This finding parallels comments from Shih’s (2004) study of IT workers’ pace of work. The study looked at how structures of work impact on individuals temporal time for maintaining social relationships. However, this doctoral study extends beyond Shih’s (2004) research findings with its focus on a broader conceptualisation of the phenomenon of work intensity and not just the pace of work. An interviewee in Shih’s (2004) study was unsure whether her drive to continue working at a fast pace was attributed to others around her working in a similar manner or whether it was because she was a victim of routine where she had worked that way for so long that she had forgotten what it was like to have a private life. The former line of reasoning reinforces the conformity that exists in teams, particularly high performance teams, and its capacity to promote intense work practices.

In addition, competitive, workplace norms extended beyond the culture of the firm to client work sites. Project based work at a client site could mean working with consultants from a mix of organisations and could result in consultants competing against each other for the prospect of extra work being awarded to their firm. On numerous occasions when located at or visiting a client site, Nina would not let it be known that she was experiencing difficulty with a task but continued persevering with it in her own time. She explained: “I always have to show them I know the stuff I couldn’t come and ask them for help (yep) that’s what I say when I need to prove myself”. Failure to deliver on client expectations could demonstrate personal weakness and reflect poorly on the individual’s employer and potentially detract from awarding future contracts to that employer.

On the other hand, workplace norms and values could alleviate the experience of intense work. For instance, Rhonda found great support and a sense of security amongst her colleagues. Opportunities for debriefing after intensive days brought her some comfort but her greatest consolation was the awareness that her colleagues were familiar with her feelings and experiences as they too, experienced intense work. At the same time, these ways of working create a sense of normalcy and with repeated use they emerge over time in the organisation as norms or acceptable forms of behaviour (as was the inference from the interviewee in Shih’s (2004) study). Hence, while colleagues who have similar intense work
experiences can provide a source of support and solace to each other they could also reinforce or perpetuate the experience of intense work as acceptable forms of behaviour.

**Employer Support**

Emerging from the case study data was the role of the employer in shaping the experience of intense work. While a partner of an individual was core to the management of his/her career and family, employers also had a significant impact on the intense work experience for individuals, particularly, some of the parents in this study. The support and flexibility provided by employers facilitated graduated attachments to work with the birth and care of children. For instance, the flexibility of banking time in lieu enabled individuals to negotiate the interplay between work and the demands of child-care. This was evident in Nina’s case, who with the support of her mother as a carer to her children, could use time in lieu to manage her child-care needs. Similar supports had enabled Rhonda to invest in her career through pursuing formal qualifications whilst working part-time over a 20 year period. The role of the employer facilitated the integration of an individual’s work and non-work roles, providing these individuals the opportunity to meet responsibilities in both domains.

**Challenging Work**

The firms that employed the participants of this study commented that they employed individuals with high levels of competency and believed their people were of a high calibre. Participants often made comments about investing in their careers through human capital, the significance of work to their identities and their commitment to work achievements. In addition, many of these individuals commented on the desire to pursue work that was challenging and stimulating. Harris commented, “I’m one of these people I’m continually restless, looking for more challenges (yep). And I often get frustrated with my job when I don’t think it’s challenging enough.” In Rhonda’s case, she expressed a “need” for opportunities to grow and develop through challenging work. While the pursuit of challenging and stimulating work was sought, it was contributing to an intense work agenda.
The notion of challenging work was ambiguous and was often seen as an internal driver of an intense work agenda. Challenging work varied from the development and consolidation of skills to feats that were perceived rather difficult and complex. Often it was a cumulative experience. In some cases, it could be measured by the anxiety and stress felt by the individual, the perceived value of the task to the employer and individual, and the sense of achievement and satisfaction upon completion of the task - that is, when met with a positive outcome. Challenging work was seen to provide individuals with great stimulation, a purpose and a sense of achievement and satisfaction, depending on the outcome.

Whilst not an explicit study of work intensity, Hewlett and Luce’s (2006) study of extreme workers found that 90% of men and 82% of women worked long stressful hours motivated by the desire for stimulating and challenging work. Barrett’s (2004) study of software developers showed that inexperienced individuals with below market pay rates worked long hours on tasks that were intrinsically challenging and interesting. These findings challenge some of the earlier thinking about work effort being associated with negative aspects of work (Baldaamus 1961). More specifically, research by Rasmussen and Johansen (2005) showed that young, inexperienced web-developers willingly worked hard, long hours in jobs that they found challenging and exciting. The culmination of being treated as an expert and gaining sought after career experiences meant that the designers were motivated to take responsibility for results and work hard, long hours to deliver. The significance of this doctoral study’s findings builds on the statistics and Rasmussen and Johansen’s (2005) Norwegian study to illustrate the complexities of challenging work and its contribution to the experience of intense work in the Australian IT industry.

In this doctoral study, the in-depth case study methodology showed that the pursuit of challenging tasks was conditional, for some, on having influence over work tasks. Such as, having responsibility for managing the project (as with Harris’ case) or having the influence to contribute to project planning (as with Laurence’s case.) In the absence of such influence, individuals could find themselves in positions of discomfort resulting in a negative experience of intense work which was not welcomed. For example, Charles’ work had become too challenging and as a business owner it was within his influence to make changes to his
position. The volume of his workload combined with the challenging nature of the tasks led Charles to think about reducing his workload. Similarly, Nina did not view her long hours on projects as problematic if she had the discretion to choose when she would complete the work. Again, these findings reinforce the significance of influence in the intense work experience. As an owner, Charles has the influence to exercise control over the content of his job, whereas Nina had some flexibility to control when she would work extra hours. As noted by Baldry, Scholarios and Hyman (2005), job control in software work is highly esteemed and, as seen in this doctoral study, plays a critical role in the experience of intense work.

For many of the individuals in this study, the pursuit of challenging work was associated with the incidence of high risk - the greater the challenge individuals set, the more difficult it was to achieve. Setting high expectations for performance was tied to the experience of intense work and limited the scope of effectively managing the interacting trajectories of one’s life. To meet work objectives individuals often compromised on other facets of their lives. For example, Dee’s investment in her career had been at the expense of spending time with her family and friends, her desire to travel and the simple maintenance of daily activities, such as the washing of clothes. Heavy investment in one trajectory was akin to ‘putting all your eggs in one basket’ which could result in negative consequences if the pursuit of challenging work had not been fruitful. In a previous study by Topple (in press), it was shown that the displacement of other facets of individuals’ lives at the hands of intense work had often precipitated fairly major shifts in life course transitions and trajectories, such as change of employment or even marriage breakdown. This work was consistent with the “reconfiguration of one’s life course” in Shih’s (2004) study of pace of work in Silicon Valley. However, this study focused on more than just pace of work in its understanding of intense work. Dee’s management of interacting trajectories segues into the next part of this analysis which looks at the work/life interface of individuals.

The Work/Life Interaction from the Perspective of Work

While the literature indicated that the phenomenon of work intensity could be pervasive in nature to extend beyond the domain of work to impact on other facets of the individual’s life,
it had not been elaborated upon using case study methodology. This section addresses two aspects: it examines intense work in the context of work/life interaction acknowledging that the phenomenon of work intensity is not just confined to the domain of work; and it focuses on the impact that the experience of intense work has on the lives of individuals working in IT. While the latter was richly addressed across the case studies in Chapter Four, examples from the cases have been highlighted in this section for illustrative purposes. Examination of the interaction between the work and the non-work domains of individuals from the perspective of work enriches our understanding of intense work and how it affects their lives. While the literature suggested that the boundaries of IT work were 'blurred' or 'fluid', findings from this study revealed different types of boundaries for people who experienced intense work. Furthermore, the type of interface or the boundary can influence the experience of intense work and could either alleviate or exacerbate the experience. As illustrated in the cases, six types of work/life interactions emerged from the data and have been discussed in this section. They are:

- The Uni-directional, Semi-permeable Interaction (Figure 1);
- The Flexible/Permeable Interaction (Figure 2);
- The Synchronised Meshing Interaction (Figure 3);
- The Conscious Boundary Building Interaction (Figure 4);
- The Sequencing of Trajectories (Figure 5); and
- The Bi-directional Integrated Interaction (Figure 6).

Given that this study was presented from the lens of work there was a limited emphasis on the non-work elements of individuals' lives. These interactions, therefore, are seen from the perspective of work. The last interaction, the Bi-directional Integrated Interaction, provides some insight on the impact of the non-work domain on one's work. Each type of boundary interface features in the conceptual model which is discussed in detail in Chapter Six.

**The Uni-directional, Semi-permeable Interaction**

It was clear from each participant that the intense work experience had a profound impact on life generally. Earlier studies of IT work recognised that workplace practices did not
accommodate IT workers non-work lives (Kidder 1981; Kunda 1992; Perlow 2001; Scholarios & Marks 2004) and in the most extreme cases in this study, the examination of intense work in the context of the work/life interaction supported these findings. The rich data in this study showed that the nature of some forms of intense work were not conducive to individuals’ achieving their roles and responsibilities in the non-work domain. For these individuals, there was no boundary acknowledged between work and non-work domains. Intense work was seen to be pervasive and overrode any form of boundary between the two domains, as seen in Figure 1.

![Figure 1: Uni-directional, Semi-permeable Interaction](image)

The experience of intense work had resulted in forms of “displacement and desynchronisation” (Shih 2004, p.230) from individuals’ personal or non-work lives. This term used by Shih (2004) was used to mean that routines of the physical body and time required to sustain family and social relationships were disrupted because of the prioritisation of work. During periods of intense work, individuals' non-work lives were rendered inactive and barely existent, in some cases. For example, Charles’ had experienced frequent periods in his working life where he was inactive in his non-work domain because of the nature of his work. This was significantly noted when Charles could not recall a conversation he had with his wife when working at home. Charles’ description of his life
being “under siege” further illustrated his lack of “time” and “opportunity” for anything outside of work. These forms of intense work were clearly pervasive and sapped individuals of the emotional, mental and cognitive realisation of their non-work roles. Displacement from non-work role gratification can be seen in what Ashforth et al (2000, p. 474) term impermeable boundaries where there is “little opportunity (e.g., access, time) to attend to other roles.” Wichert, (2002) using quantitative data, found similar results in her analysis of the JIWIS where persistent, long term work overload was likely to lead to exhaustion and decreased performance.

The uni-directional, semi-permeable nature of this interaction was evident across the life course but particularly with individuals in the early stages of their careers, who were determined to apply and succeed at building their careers. For instance, Dee’s commitment to focus on her professional career had consumed her wider life to the extent where she felt exhausted, had developed obsessional thoughts about what she was able to achieve and had very limited time for social activities or simple daily activities. On Harris’ own admission, his investment in his career and episodes of excessive work resulted in bouts of clinical depression and periods of extreme anxiety and stress in relation to his ability to have influence within the firm. Charles’ drive to prove his worth as an intern led to up to 40 hours per week of learning new computer languages, setting up a standard of work capacity for his future. As discussed throughout this analysis, striving for self-worth and to improve one’s employability through investment in human capital was equated to hard work in employment, mastery and career success (Humbert & Lewis 2008).

The consequences of participants’ career building pursuits appeared to not be recognised at the time of the experience and tended to be framed retrospectively when looking back on their work. These findings sit in parallel to work by Milliken and Dunn-Jensen (2005) who found that managers and professionals were often not aware that their work encroached into their personal lives. Intense work was pervasive to the extent that individuals were barely conscious of its existence. When viewed in terms of the work/life interaction intense work was seen to be uni-directional, in terms of work flowing into the non-work domain. That is, it only flowed in one direction, from work to the non-work domain. Furthermore, it was also
viewed as semi-permeable, in that work roles and responsibilities were absorbed within the non-work domain. As Charles described, this type of interaction made individuals feel like their lives were “under siege”.

The Flexible/Permeable Interaction

While intense work could be uni-directional and semi-permeable with potential debilitating consequences for individuals, boundaries could offer some flexibility and permeability to accommodate the blending of home and work life domains (Clark, 2000). Studies, such as Scholarios and Marks (2004), support ‘integrative’ domains for IT workers where there is no distinct conceptual boundary separating the domains of work and home (Nippert-Eng 1996). As seen in Figure 2, integration is reflected by the punctuated boundary between the domains. Employers and mobile infrastructure facilitated flexible and permeable boundaries of intense work which could either exacerbate or alleviate the experience of intense work.

Figure 2: Flexible/Permeable Interaction
In this study, individuals’ employers commonly deployed informal practices and approaches to flexibility. However, they operated within a monitored framework of performance. Most employees were entrusted with some degree of job control giving them autonomy to manage and integrate their work with commitments in their personal lives. To demonstrate flexibility and control to manage one’s start and finish times removed some of the peripheral constraints that individuals, such as Rhonda, experienced when trying to meet the demands of her work and non-work roles. The flexibility to choose her start and finishing times enabled her to avoid double fees for car parking when leaving the paid car park to visit clients during the day. This flexibility enabled Rhonda to exercise control over her time at work which could alleviate the intensity experienced when combining work and non-work roles. However, this flexibility was afforded at the discretion of her employer and the demands of her clients. Hence, her control was somewhat limited and could be constrained by other stakeholders. From this study, the flexibility and support of employers clearly influenced the intense work experiences of individuals.

The boundary between work and non-work domains were not just defined by the physical location of the workplace. Within this study, the provision of mobile infrastructure and technologies enabled individuals to work remotely from outside of the workplace creating a permeable boundary. Harris, Nina, Laurence, Rhonda and Charles frequently used technologies to access work related material from their homes. To illustrate, Harris frequently checked his email at home which then led to performing work tasks. At one time in Nina’s career, she tended to upgrade her IT knowledge at home in the evening after putting her children to bed. In this context, permeability has been viewed as “the degree to which a role allows one to be physically located in the role’s domain but psychologically and/or behaviourally involved in another role” (Ashforth, et al. 2000, p.474). Hence, individuals could conduct work tasks from outside of the workplace (and vice-versa, where non-work activities could be performed in the workplace).

The permeability to accommodate the blending of home and work domains could empower individuals providing them with control of their work. For example, many individuals had control to determine when and how their work would be performed. This could be seen in
Nina’s story. The “short term, dynamic” nature of Nina’s projects directly affected her quota of billable hours which were further compounded by learning curves for new technologies. This level of job control had the potential to moderate the experience of intense work through facilitating the meshing of work and non-work roles. For instance, working from home during the evening and on weekends around the care of her children enabled Nina to meet her quota of billable hours and parenting responsibilities. However, the permeability could also lead to the silent elongation of the working day. In Harris’ case, he experienced challenges ensuring that a boundary existed around his work. The increased accessibility and connectedness to work could also lead to the consumption of more work and, therefore, lead to being “under siege” (a uni-directional, semi-permeable type of interaction).

**The Synchronised Meshing Interaction**

The integration of boundaries in IT work could further be seen in the experiences of parents combining work and family roles. The mothers in this study practised the meshing or tight synchronisation of work and non-work roles through the ‘batching of activities’ into seamless daily routines. Nina had scheduled the train commute to and from work, taking the children to school, caring for them at home and completing any outstanding work from the day, into her tightly regimented schedule. Likewise, Rhonda navigated peak hour traffic and doubling up of fees for parking, dropping her children at school and work, visiting her mother at the nursing home, combined with her work demands each day. This level of integration between the domain roles had the potential to alleviate the experience of intense work and ensure the seamless achievement of responsibilities in both of their work and family domains. Hence, there is a considerable overlap between the two domains, as seen in Figure 3. Yet, these tightly meshed activities embedded within their schedules did not allow any slack for lateness, ill health, and so on. If there was a slippage with any of these activities, it often ricocheted on all proceeding activities adding further intensity to the day (or sometimes week).
Figure 3: Synchronised Meshing Interaction

In addition, a point that emerged from the case study data for consideration for future research was how the location of the workplace could further hinder or facilitate the management of the individual's rigid schedules. Of particular interest in this study was the finding that workplace location was reported to be of some concern for only Rhonda and Nina's intense work experiences. Nina recognised that her office location could dramatically influence her intense work experience. The location of the client’s workplace could potentially lengthen her working day and heighten feelings of stress to fit in all of her work and non-work activities into her daily routine. By comparison, Rhonda noticed that relocating to an office outside the CBD had resulted in a more flexible daily schedule which enabled her more time to meet the responsibilities in both of her domains. This finding raises a number of assumptions about intense work: Does it imply that peripheral intense work constraints, such as office location, could only be expressed by individuals who travel some distance from home? Or are these peripheral constraints only expressed by individuals who have competing demands across their domains? If so, these peripheral constraints such as office location influenced the intense work experience of Nina and Rhonda because they had many roles in their non-work domain. They were individuals who assumed the primary care giving role of their children, the role of the homemaker and in Rhonda’s case, the visiting of her mother in a
nursing home. If the males in this study assumed or expressed other major roles in their non-work lives would broad, peripheral constraints such as office location in this example, have formed part of their intense work experience? This remains a fruitful area for examination.

The Conscious Boundary Building Interaction

While integrative boundaries could facilitate the blending of domains, they were at times problematic, resulting in the silent elongation of the working day. This was clearly seen in Harris’ and Nina’s narratives. In a similar vein to Harris, Charles had come to realise his lack of invincibility as a result of the excessive nature of his work. Stress, poor resiliency and feeling an inability to cope surfaced, leading to a day of absence from work - a first-time experience in his 20 year career. Charles acknowledged the non-existent boundary of his work which precipitated the conscious building of boundaries around his work enabling him to have choice and influence over his life (Ashforth et al. 2000; Kossek et al. 2005). Instituting a gym routine and making a personal commitment to attend these sessions was Charles’ strategy to exercise some control and break free from the demanding nature of his work.

Taking a different tact to Charles, Nina applied a somewhat different form of boundary building, exercising her limited job control through the ‘banking’ of overtime hours. While additional hours of work could be seen as grounds for promoting an intense work regime, Nina’s role autonomy enabled her to choose when to use her time in lieu which was often aligned with her parenting role. Likewise, Sam created a demarcation between work and his personal life, by leaving work at 5.30pm to have dinner with his family. These forms of boundary building, as noted by the red line, were an effort to more effectively manage individuals’ experiences of intense work and to pursue activities in the non-work domain. As can be seen in Figure 4, the work and non-work structures are segmented. This is one example of a segmented boundary which is not typically associated with work in the IT sector (as suggested by the ‘blurred’ or ‘fluid’ boundary). However, findings by Barrett’s (2005b) research on software developers in 2002-2003 revealed that some workers wanted to keep their work and home domains separate.
The Sequencing of Trajectories

At one extreme, the experience of intense work was found to have considerable ramifications for the lives of individuals, in light of the work/life interaction. A rather different form of interface could be illustrated in Dee’s experience of intense work. Viewed as being a profound example of segmentation where work and home are seen as separate, segmented worlds (Nippert-Eng 1996), the interface was described as the sequencing of trajectories. The term ‘sequence’ has different use in the life course literature; however the term has been used here in reference to whole trajectories where work and home activities are not pursued simultaneously, as seen in Figure 5, with the structures illustrated at different levels. Rather, there was delayed fulfillment of the non-work trajectories in order to meet the work trajectory. Likewise, the two structures are completely bounded to indicate no interaction between them.
Dee’s life course events were plotted against a timeline where trajectories were planned to occur in sequence to each other. Her focus on the career trajectory had been given precedence over other events in her life, such as travel but more significantly, motherhood. Her plans to soon become a mother were partly driving her intense work agenda but were also governed by age graded standards of accomplishment. Furthermore, the sequencing of trajectories - with a focus on career in the present time followed by impending motherhood in the future - implied that it was too difficult to manage the building of a career with parenting responsibilities, simultaneously.

The sequencing of trajectories was perceived by Dee as being an attractive means of managing her career with motherhood. In Dee’s case, the purpose of sequencing trajectories was a strategic decision of managing career with future projections of motherhood to reduce the likelihood of experiencing further challenges and intense work when becoming a working mother. Dee’s main concerns were making a smooth entry into the labour market after having a child and a fear of not being able to invest in her career with competing childcare
responsibilities. The focus of Dee’s career, with its unfortunate sets of circumstances more recently, had not only fuelled an intense work agenda but had left a void in her life.

**The Bi-directional Integrated Interaction**

Up until this point, the analysis has focused on the interactions of work with individual’s non-work trajectories and the impact of work on the broader lives of individuals. Given that this study of the experience of intense work was from the perspective of the worker and was positioned in the domain of work, it could not provide a bi-directional analysis. Yet, there was evidence of spillover from non-work to work domains which had presented a form of intensity (this is noted in Figure 6 with the bi-directional arrow). While noted as a focus for future research, Harris’ story showed a bi-directional experience of how the non-work domain impacted on his work. Harris could justify excessive hours of work as a means of ‘filling’ a void that he was feeling in his personal life from not being able to yet conceive a child with his wife. This form of compensation to provide purpose and achievement might have alleviated the ill-feelings and thoughts about child-lessness on the surface but his investment in work had evolved into an intense work agenda that had eventually led him to ‘burn out’.

![Figure 6: Bi-directional Integration Interaction](image)
There was further evidence that some individuals had experienced negative feelings typically associated with the experience of intense work (that is, stress, anxiety, and worry). However, these individuals had difficulty locating these emotions to a specific domain. Harris explicitly reported that, at times, he could not distinctly attribute his stress and anxiety to work or the non-work domain. An inability to locate intensity to the specific domains of life emphasises the solid integration of domains within the life of the individual. From examining the work/life interface, these findings suggest that from time to time individuals with strong integration between the domains of work and non-work would not be able to perceive a distinct boundary separating the domains of work and non-work. Hence, the domains of work and non-work for those with an integrated interface could be described as blurred, at best. This can be seen in Figure 6 with the punctuated lines. Consequently, the experience or associated feelings of intense work for these individuals cannot be exclusively confined to their domain of work but rather their life, overall.

Summary

Against a backdrop of considerable demographic change and related labour supply issues in the Australian IT sector, this doctoral study explored the experience of intense work for individuals. Furthermore, it has critically considered the impact of intense work on individuals’ lives and the relationship between ageing and intense work.

The inductive, emergent nature of the research and the use of a life course framework showed that the experience of intense work manifests itself for individuals in various ways. One’s experience of intense work is clearly influenced by the concept of time which has been examined in terms of the timing of lives and lives in time and place (Elder 1994; McMullin 2004; McMullin & Marshall 2010a; McMullin & Marshall 2010b).

The concept of time was captured in individual experiences of intense work which accounted for some patterning and diversity in social transitions and life course events within their lives. The in-depth narratives informed the conceptualisation of intense work suggesting that the
concept of intense work is multidimensional but unique to each individual. The experience of intense work is ultimately influenced by an individual’s life course and is a culmination of factors from the IT labour market and workplace, in the context of the work/life interaction, which makes work intense. Below is a summary of findings from this chapter presented in accordance with the contexts of the IT labour market, intense work dynamics in the workplace and the work/life interaction from the perspective of work. The connections between these contexts are discussed in the next chapter.

The IT Labour Market

Intense work in IT had particular effects on the interface between work and the non-work domain, or life more broadly. Many organisations within the sector competitively vied for market value driven by innovation and rapid, technological change. For individuals in the new economy, the success and longevity of their careers hinged largely on their ability to be adaptable through ongoing investment of skills and knowledge across their working lives. Conversancy with, or acquisition of, current, marketable skills promoted an intense work experience for many and was associated with employability. Current, marketable skills enabled individuals to engage in mobility across jobs to seek favourable employment opportunities. This pursuit of employability underpinned the experience of intense work for many participants in this study.

Yet, the ongoing pursuit of investment in human capital with respect to skills and knowledge was difficult to maintain across the working life. Avoidance and often failure to stay abreast with current advancements in the sector were seen to lead to potential skill obsolescence and potential redundancy. The incidence of rapidly changing technologies presented temporal challenges for individuals. It was problematic for people who worked on short term projects with steep learning curves and for others where billable hours could not be charged to clients for the upgrading of an individual’s skills. Learning often leached beyond the work domain making it difficult for individuals to manage the interaction of pervasive work with non-work roles and responsibilities.
The upgrading of skills, particularly in high-skills professions, was perceived to be better suited to individuals without constraints on their working lives. Parents faced the paradox of choosing to spend time upgrading skills to maintain employability rather than spending quality time with their children.

Coined by Duerden Comeau and Kemp (2007, p.223), the “nimbleness of youth” was perceived to be highly favourable for effective skill upgrade. Age graded views of accomplishment and career progression shaped the experience of intense work. Younger workers heavily invested time and energy into their careers in the absence of competing life trajectories, such as parenting. Risk was perceived to increase for ageing individuals - slow, learning capacities associated with ageing tended to be equated with diminished competitiveness in the market. Coupled with organisational structures that presented temporal constraints, such as steep learning curves for short term projects, and the need for ongoing learning across the working life, it was challenging for individuals to sustain their employability into later life in high-skills organisations. With age came greater insecurity about being able to maintain a high salary and an ability to be competitive in the job market if in a position of job seeking.

Perceptions about the ageing process had a negative influence on older workers to continue learning agendas over the life course, particularly in relation to slowing abilities and memory retention. Ageing was also seen to influence the experience of intense work for people with expectations of high investment for younger workers new to the employment market and perceived risk attached to the employability of older workers.

**Intense Work Dynamics in the Workplace**

The workplace was critical in influencing the outcome of intense work, in particular the degree of influence and job control within individual’s roles, which had a considerable impact on their intense work experience.
Project planning schedules and budgets frequently resulted in aggressive deadlines that were difficult for individuals to meet and often resulted in long working days. The prevalence of this phenomenon was perceived to most likely impact on the sustainability of careers in IT and was suggested as a future area for research. The pursuit of efficient organisational processes and structures was seen to drive periods of intense work that required intensive phases of high concentration and focus.

Organisational restructuring often led to increased workloads for individuals which heightened their experience of intense work. The high volume of workloads could compromise the quality of outputs with negative consequences for individuals' self-reports of esteem and job satisfaction. The structure of billable or chargeable hours in organisations was a highly contentious source of intense work. This structure often did not accommodate for all work tasks performed by the individual including the time required for upgrading of skills and knowledge, which often led to unremunerated, long hours of work. A further issue of contention was what billable hours represented in the organisations. Often perceived, albeit inappropriately, as an indicator of one's performance and value to the firm it presented as a source of anxiety and frustration for individuals whose work could not be charged out to a client. Work teams had the capacity to exacerbate or alleviate the experience of intense work for individuals through the reinforcement of high performance norms. Competition between external consultants on client sites was rife as they jostled amongst each other for the award of prospective work to their employers. The pursuit of challenging work, although at times ambiguous in its meaning, could lead to a high sense of achievement and satisfaction but only if, individuals had opportunity to exercise influence and when the work resulted in a positive outcome.

**The Work/Life Interaction from the Perspective of Work**

The final part of this analysis looked at the interface of intense work with the non-work domain of an individual’s life and the impact of how intense work impacts on life. For some, the boundaries between work and the non-work domain were virtually non-existent. The pervasiveness of intense work, at times, was overwhelming and eroded any form of boundary
between the domains of life. This was particularly evident in the early careers of individuals. Flexible and permeable boundaries between domains enabled individuals to integrate the roles in multiple domains. The role of the employer, mobile infrastructure and technologies, plus job influence proved fruitful for alleviating the experience of intense work.

Some individuals made active decisions to build boundaries around their work and make changes to more effectively manage their responsibilities or roles in both domains. These included blocking time for the pursuit of health and nutritional programs, introducing strict times to finish work and the ‘banking’ of time in lieu for the use of child-care. For others, they exercised job control by seamlessly batching non-work and work activities together into daily routines, with the risk that slippage in any one of these activities could precipitate further experiences of intense work. In extreme cases, work and home activities were not pursued simultaneously in order to meet the demands of intense work. And, in other cases, the interaction between work and non-work was recognised as bi-directional. The boundary was tightly integrated to the point that individuals could not identify feelings to a specific domain.

In addition to methodologically contributing to the literature, this study’s other significant contribution is a conceptualisation of intense work in consideration of the interaction between the work and non-work domains. Constructions of intense work are based on the dynamic interrelationships of a culmination of factors across the work and non-work domains. This conceptualisation has been presented in the next chapter.
Chapter 6 - Conclusions and Recommendations: Towards a Conceptualisation of the Experience of Intense Work in the Context of the Work/Life Interaction

Introduction

Chapter Six is the final chapter of this dissertation. To conclude, this chapter provides an overview of the main focus of this study. The previous chapter comprised an analysis in accordance with: the IT labour market; intense work dynamics in the workplace; and, the work/life interaction from the perspective of work. Each of these contexts was presented separately for ease of discussion. However, the findings from the case study data showed that the experience of intense work was based on the dynamic interrelationships of factors from across the three contexts underpinned by the individual’s life course. This dissertation brings the study’s findings together in the form of a conceptualisation of intense work in the context of the work/life interaction.

Following this conceptualisation, this chapter will make recommendations that are relevant to organisations and individuals and then conclude with suggestions for future research.

Towards a Conceptualisation of the Experience of Intense Work in the Context of the Work/Life Interaction

New economy organisations are inevitably embedded in complex, interrelated systems where the structure and composition of labour markets have a profound impact on people and their experiences of intense work. Work, however, is only one trajectory of life. In addition to work, Elder (1985) identifies a number of trajectories, that are interdependent such as family, education and health. When the trajectory of work interacts with trajectories of the non-work domain (such as those mentioned above) diverse experiences of intense work are elucidated and present broad ramifications for the individual.
In this next section, I will present a conceptualisation of intense work from the context of the work/life interaction. This interaction takes place in accordance with the individual’s life course which underpins the intense work experience. There are two layers to the conceptualisation that enable examination of intense work on individuals’ lives. First, I will provide details of the meta-level and then discuss the base level and its forms.

**Meta-Level: The Individual Life-Course**

At the meta-level is the life course of the individual. The meta-level consists of the guiding principles of the life course (Marshall & Mueller 2003) which influence the concepts of life transitions and trajectories (Elder 1985; Elder 1998) - key tenets of the North American life course perspective (Marshall & Mueller 2002).

Past experiences and the meaning that individuals attach to those experiences carry forward to influence future events and transitions (Marshall & Mueller, 2003). For example, it was evident how human development and ageing had influenced the intense work experience of Laurence and Sam. Both of them had been in the industry for some time and had experienced the peaks and troughs of labour force activity and inactivity due to the global economic climate. A witness to redundancies from the IT bust in early-2000, Laurence was led to think that his work trajectory would end through retrenchment rather than retirement. This concern was also shared by Sam.

The experiences of an individual are shaped by social time in terms of the timing of lives and lives in time and place (Elder 1994; McMullin 2004; McMullin & Marshall 2010a; McMullin & Marshall 2010b). As McMullin and Marshall 2010a (p.13) state, the historical time in which individuals are born influences individuals experiences and the ageing process ... At the same time, ageing processes and the patterning of life course transitions are shaped by social contexts and cultural meanings that lead to some diversity in the sequencing of life course events and social transitions.
In this study, Dee and Harris (and Charles, when younger) had similar perceptions about their investment in their careers which resulted in intense work agendas. Clearly for Harris, age-graded views of accomplishment shaped his practice of intense work. Dee’s timeline approach to life, on the other hand, fuelled her intense work agenda as she wanted to experience success from hard work before starting a family to ensure a smooth entry back into work after having a baby. These experiences were shaped by social time and the cultural meanings attached to these transitions and events of work and also family.

The life course concept of linked lives was critical to individuals’ ability to work in IT occupations in many of the cases, particularly in relation to parenting responsibilities. This principle acknowledges that individuals do not live their lives in isolation; actions are influenced by the connections individuals have with others (McMullin & Marshall 2010a). For those participants in the study who were parents, the experience of intense work and its impact on the non-work domain could, at times, be alleviated or exacerbated depending on the individuals in one’s life who could assist with caring for children. For example, the flexibility of banking time in lieu and the support of her mother as a grandparent carer to her children enabled Nina to negotiate the interplay between full-time work and meeting the demands of childcare. On the other hand, Charles’ gender specific assumptions about family/work roles in his marriage enabled him to pursue his career ambitions. An outcome for Charles was the working of long, non-traditional hours while his wife assumed the primary care of their children.

According to the fourth principle of the North-American life course perspective, human agency plays a role in how “individuals construct their own life course through choices and actions they take within the opportunities and constraints of history and social circumstances” (Marshall & Mueller 2003, p.11). Individuals attempt to manage their lives (McMullin & Marshall 2010b), as was seen across the cases, particularly in relation to job influence and autonomy, key themes that emanated from this study. Charles built boundaries around his intense work experience and pursued an exercise plan to help alleviate some of the stress that he experienced from challenging work. For others, the flexibility afforded them by employers enabled individuals to negotiate how to manage their intense work in relation to
their non-work lives. For example, Rhonda batched the navigation of peak hour traffic, the double-up of car parking fees, dropping the children at school and work, and visits to her mother at the nursing home, with her intense work experience.

These principles of the life course underpin the individual’s life events and transitions. Evident from the data and the snapshots above, the life course has a considerable influence on the experience of intense work. As mentioned earlier, the life course perspective allows for diversity in the sequencing of life course transitions and social events (Elder & O’Rand 1995; Heinz 2001; Marshall & Mueller 2003). Hence, the experience of intense work will be common for individuals but also can be unique for individuals over time. This level of analysis provides a lens for viewing how the life course of individuals influences their experience of intense work and its subsequent impact on their lives. This next section looks at the base-level to provide descriptions of the impact of intense work on individuals’ non-work lives.

**Base-Level: The Intense Work Experience in the Context of the Work/Life Interaction**

There are three main components to the base-level of the intense work conceptualisation. These include the intense work structure, the non-work structure and the interaction between the structures (which enriches our understanding of intense work and how it impacts on individuals lives). The intense work and non-work structures are represented as two nebulous cloud-like forms that are fluid and dynamic. With respect to principles of social time, the conceptualisation acknowledges that all three components are in states of flux enabling each of them to change when the context changes. An individual’s experience of intense work can fluctuate, activities within an individual’s non-work life vary from time to time and, therefore, the impact of intense work on individual’s lives, and vice-versa, will change. This conceptualisation recognises that diverse intense work experiences exist amongst individuals but also within individuals, as their experiences change over time.

Each part of the base-level is discussed below. A discussion of the machinations of the base-level then follows.
The Intense Work Structure

The intense work structure emerges from the work trajectory which occurs in the work domain. The findings from this study showed that a culmination of IT labour market and workplace factors comprised the intense work structure. These factors pertain to broader, IT labour market issues that have either a direct or indirect impact on an individual's work trajectory. From the study, the identified IT labour market factors included: employability and the upgrading of IT skills across the life course. As indicated in the sub-titles, some of these labour market factors have been examined in terms of ageist practices and perceptions of age and, therefore, they present a somewhat different picture of intense work.

The dynamics in the workplace also contributed to the experience of intense work. These factors encompassed the organisational structures and practices that occurred within or that were associated with the organisations in which individuals worked. They included the following issues and associated implications: project planning; workloads, including workloads influenced by client demands; organisational re-structuring and work quality; organisational structures, such as billable hours, work performed in teams and employer support; as well as, the pursuit of challenging work. A key theme that emerged across these factors concerned the degree of influence and job control individuals had in the workplace and how it affected their experience of intense work.

The Non-Work Structure

Given that this study's research area focused on the experience of intense work and its impact on individuals lives, the intense work structure is comprehensive in its description and features key factors from the workplace and IT labour market. The non-work structure, on the other hand, is understood in its most basic form and is without extensive depth. The interaction of the trajectories was not viewed from the lens of non-work but from work. As a result, the non-work structure is not comprehensive in its coverage.
While analysis from the perspective of the non-work domain was not a main focus of the study, assumptions have been made about the factors that fall within the non-work domain. These could include activities within the family domain (the family trajectory), personal time and its impact on the health trajectory or broader social interaction time.

Interaction between Structures

The definition and size of the interacting structures indicate the type of interaction that can influence the experience of intense work and its impact on the individual’s life. Like the other two components, the interaction component is malleable to accommodate the changing composition of the two structures and subsequent level of influence of intense work on the individual’s life.

Each permutation of the interactions has been covered in detail in Chapter Five but has been summarised below in Table 4. The definition and size of overlapping forms captures diverse interactions that enrich our understanding of intense work and how it affects individual’s lives. The definition of the interface indicates the degree of integration or segmentation of these domains. A punctuated or broken line indicates integration between the domains. This form would be used for illustrating the flexible and permeable interaction (Figure 2) and the synchronised meshing interaction (Figure 3). The focus of this doctoral study was on the examination of the impact of intense work on the individual’s life. However, it was apparent from findings that the non-work domain could have an effect on the work domain and subsequently the experience of intense work. Consequently, this bi-directional interaction is also integrative (although the conceptualisation is somewhat limited in its understanding of the non-work domain’s impact on the work domain) and has been captured in the bi-directional integrative interaction (Figure 6). The solid line between domains illustrates an effort for segmented domains. This includes the conscious building of boundaries (Figure 4) and in an extreme form, the sequencing of trajectories (Figure 5). With exception to the integration/segmentation continuum of interacting domains, the pervasiveness of intense work, on occasions, overrode any form of boundary between an individual’s two domains. This is recognised with no boundary between intense work and the non-work domain as shown in the uni-directional, semi-permeable interaction (Figure 1).
Table 4: The Six Intense Work/Life Interactions

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Boundary Type</th>
<th>Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni-directional, semi-permeable</td>
<td>None</td>
<td>Work overrides non-work domain, life is described as being “under siege”</td>
</tr>
<tr>
<td>Flexible/permeable</td>
<td>Integrated</td>
<td>Monitored flexibility provided by employers and mobile infrastructures accommodate the blending of work and non-work roles. Can either alleviate or exacerbate the intense work experience</td>
</tr>
<tr>
<td>Synchronised Meshing</td>
<td>Integrated</td>
<td>Tight synchronisation of work and non-work roles into seamless daily routines. Can either alleviate or exacerbate the experience of intense work</td>
</tr>
<tr>
<td>Conscious Boundary Building</td>
<td>Segmented</td>
<td>Building boundaries so work and non-work activities are separate where intense work is contained and does not impact on non-work life</td>
</tr>
<tr>
<td>Sequencing of Trajectories</td>
<td>Segmented</td>
<td>Non-work trajectories are delayed to meet the needs of the work trajectory</td>
</tr>
<tr>
<td>Bi-directional Integrative</td>
<td>Integrated</td>
<td>Acknowledgement that work can impact on non-work, and vice-versa. Can result in the emergence of intensity associated to life, overall</td>
</tr>
</tbody>
</table>

The size of the overlap is also significant to these interactions. It shows the scale of the impact that intense work has on individual’s non-work lives. Larger overlaps indicate greater impact on the non-work life. These illustrations are mere descriptions of various states of interaction between intense work and non-work.

As illustrated in Figure 7, when the levels are brought together, the meta-level provides a lens for viewing how the individual’s life course influences the experience of intense work in the context of the work/life interaction. From the data, assumptions have emerged in relation to the likely occurrence of particular states. A major assumption of the model is that individuals
will have multiple illustrations to indicate the fluid, and ever changing composition of the structures and interaction. Figure 7 is just one example of how the individual's life course influences the experience of intense work in the context of the work/life interaction at a point in time.

Figure 7: The Influence of Life Course on the Experience of Intense Work in the Context of the Work/Life Interaction

Recommendations: Implications of the Study

Introduction

This dissertation examines the experiences of intense work for individuals working in the IT sector and how these experiences impact on their lives. It complements and builds on the findings from the Workforce Ageing in the New Economy (WANE) project. Findings from this doctoral study have implications at a number of levels and recommendations pertain to organisational policy and practice-based levels, as well as at the level of the individual.

The research findings serve to inform and translate into human resource management policies and practices that address issues of workforce ageing, life course events/transitions, and their impact on employment relations. Organisations can use these findings to shape the development and retention of their employees, inform the design of work structures in the firm, and guide expectations and standards of performance. These applications have repercussions for broad work/life policies, performance management and reward systems, learning and development and the organisation’s structure and culture. Organisations can gain an awareness of the employee experience of sustaining productive employment in IT work and the barriers and challenges employees experience when trying to combine employment with activities in their non-work or private lives.

It is likely that workers in new economy organisations (if they read this) will draw on these experiences of IT individuals to gain an understanding of intense work and how it impacts on activities within their lives. The opportunity to view individuals’ stories in the field of IT enables readers to understand through the vicarious experience of case study participants or to draw parallels from the case studies to their own employment experience. The case studies potentially have an influence on how readers might proceed with their employment pathway and the foreseeable issues that lie ahead of them in trying to maintain a productive attachment to the workforce in the event of changing life course events and transitions.
The next section identifies specific recommendations for organisations and individuals to reflect upon as a result of this study's findings. Organisation recommendations are made in reference to workplace structures, the learning and ageing of workers, and the work/life facilitation of workers. Individual recommendations cover the learning and training of workers and the work/life facilitation of workers.

**Organisational recommendations**

**Workplace Structures**

- In organisations that deploy structures of billable hours it is recommended that management consider the number of billable hours workers are expected to accrue weekly. These models would ideally factor in annual leave, time for training and professional development, administrative work and other work activities that are expected in the role but clearly cannot be charged to clients. This would enable workers to have an achievable and somewhat fair workload that provides opportunity to combine work with the pursuit of non-work activities.

- Management are encouraged to consider the impact of a billable hours structure on workers, particularly in terms of the frequency and volume of work that is not billable and therefore, results in uncompensated work for individuals. The following question should be considered: How will uncompensated work affect individual job satisfaction and impact on employee morale and retention?

- The broader ramifications of a billable hours structure in the workplace needs to be considered. Does the organisation use this structure to audit the value of workers in the firm? What role, if any, does a billable hours structure play in the performance management systems – is it an adequate or objective measure of performance?

- Project planning skills require detailed examination. The development of project planning schedules has implications for resource allocation within the firm which can impact on the workload of individuals. Poor planning or efforts to shorten delivery time-frames can create aggressive deadlines that are difficult for workers to meet and require exhaustive efforts to complete. Given the frequency of these types of deadlines for workers, organisations should deploy adequately skilled people to
conduct planning activities and allocate resources within the firm. Secondly, deadlines should be achievable.

Learning and Ageing of Workers

- There is a need for workers and management to be exposed to age awareness training. Age discrimination is a salient theme within the study and had a considerable impact on how managers (and workers) viewed the abilities of older workers which influenced the perception of value associated with older workers. Training can contribute to the elimination of the stereotypes and ageist generalisations that exist in the workplace and that ultimately influence the employment opportunities of ageing workers.

- Ageist stereotypes and views limit the opportunities for professional development of older workers. In one case, an older worker was assigned to the maintenance of legacy systems which diminished the worker's employability and marketability when the technologies were superseded.

- Lifelong learning principles need promotion and embedding in organisational cultures.

- Lifelong learning cultures should be interrelated with strategy and permeate all organisational activities to eliminate discrimination based on age.

- Learning and development programs should provide opportunities to all workers in the organisation based on competencies, not the arbitrary characteristic of age.

- The provision of simple facts that dispel the myths of ageing and learning, such as declining memory capacities related to ageing, could facilitate learning across the life course and shift attitudes to ageing and learning (Cau-Bareille and Marquié 1998). This is particularly important for professions in the knowledge economy where there is rapid technological change.

- Formal technical based training should be conducted as the need arises or upon request. This would ensure that new learning is applied directly to tasks and prevent skill atrophy.

- Learning of skills and acquisition of knowledge should be interspersed, when needed, across the working life to prevent workers having to experience sudden shifts in
learning that tests individual’s procedural knowledge. Re-configuring learning has an impact on the time required for learning and can possibly result in the aversion of training and learning.

Work/life Facilitation

The findings suggest that the role of employers is also critical in shaping the outcome of an individual’s management of work and life domains. The flexibility and support from employers facilitates the integration of individual’s work and non-work roles, easing some of the tension and anxiety for workers. However, these accommodations occur at the discretion of the employer and within an environment tightly monitored for performance. To facilitate the development of employees and the subsequent retention of workers to the firm, organisations should try to accommodate employees in ways that assist them in combining their work and personal lives. Some possible ways to facilitate this include:

- Acknowledge that work does not exist in isolation to other facets of worker’s lives and that the management of the roles in both domains is valued.
- Where possible, design positions with considerable influence and autonomy to enable workers to manage how work gets done in the firm. When it is not exploitative, autonomy can assist with job satisfaction and provide flexibility for individuals to manage the interaction of intense work and their non-work roles.
- Offer workers flexibility, where possible, in start / finish times to reconcile work and non-work roles.
- Provide the opportunity for part-time/fractional employment contracts which will retain competent, valued employees in the organisation while at the same time provide an opportunity to reconcile work and non-work lives.
- Offer flexibility in the form of part-time working options to new-parents when returning to work to enable these workers to ease their way back into the labour market and to continue with the investment in their careers (the accommodation of the firm to offer flexible work options is important and appears to shape the management of workers trajectories).
Recommendations for Individuals

Learning and Training of Workers

- Many older workers believed that their ability to remember new learning was challenged (or problematic) due to perceived memory loss and associated slowness with learning new tasks. If new learning is required, it should be applied immediately to problems or situations within the firm to prevent skill atrophy, which is a common experience for all people, regardless of age.

- It is recommended that older workers practise activities or tasks that help them to retain an active, working memory and assist them with memory retention.

- Individuals should engage in learning across the working life to maintain the fundamentals of learning. These forms of ongoing learning or lifelong learning would ensure that individual’s skills and knowledge are up to date and avoid the strain when one’s learning needs total reconfiguration.

Work/life Facilitation

To effectively manage intense work and ensure activity in both the work and non-work domains, individuals are encouraged to:

- Implement plans, including health and nutritional plans, which serve to alleviate stress and anxiety that individuals experience from intense work. This requires the building of boundaries around work and serves as a productive means of offsetting some of the negative health consequences of intense work with positive health activities.

- Build support networks with family, friends and colleagues. Personal networks are invaluable to assist individuals with the meshing of work and family roles, whether it is through the caring of children or offering an ear for support. While colleagues and professional networks can reinforce norms of intense work, they can also be empathetic and provide emotional support.

- Find some ‘balance’ between the pursuit of challenging, yet achievable work that yields job satisfaction. Unsatisfying and unchallenging work can lead to feelings of
apathy. However, work that is too challenging can evoke considerable anxiety and stress.

- Examine and reflect on the degree of influence individuals have on their work role. Operating with a degree of control and influence is likely to lead to job satisfaction and also enable individuals to reconcile their intense work with their personal lives. Job control and autonomy, when not exploitative, can provide individuals with scope to influence their work and work in a way that they want to work.

**Signposts for Future Research**

This doctoral study is unique in that it addresses the experience of intense work. As such, it is evident that the dissertation makes a significant contribution to the field. The contribution is clear, as the study:

- addresses the need for a contemporary Australian study that moves beyond mere measures of work intensity to examine the phenomenon in greater depth using case study methodology;
- encapsulates the experience of intense work across the work and non-work domains from the lens of work;
- explores the relationship between ageing and intense work; and
- provides a conceptualisation of intense work in consideration of the work/life interface.

Although literature pertaining to the work/life interface and on the topic of pervasiveness of IT work exists, the literature that bridges these two aspects with a clear focus on the experience of intense work is sparse. A conceptualisation of intense work was developed that was viewed in the context of the work/life interaction. This conceptualisation enriches our understanding of intense work and its effect on individuals’ lives. From this conceptualisation, I have identified significant research areas worthy of study, and then present more general research agendas that bring together intense work, the work/life interface and IT work, specifically.
From conceptualising intense work in the context of the work/life interface, degrees of integration and segmentation between the domains were examined to understand the impact of intense work on the broader life. These boundaries between the two domains were based on the intense work experiences of seven case study individuals. Future research could develop the conceptualisation further using a larger sample of individuals with broad life course experiences. It is expected that the inclusion of a larger, diverse sample would reveal additional types of boundaries between work and non-work and potentially consolidate the boundary categorisations established from this study.

The conceptualisation was embedded in the domain of work, as this was the focus of the study, and therefore, this aim was viewed through the lens of work. It was apparent from the findings that the non-work domain could spill-over and affect an individual’s work trajectory and, therefore, the interaction could be viewed as bi-directional. To further consolidate this study’s understanding of intense work and its impact on individuals’ lives, subsequent research could seek to understand the bi-directional nature of the interactions. More specifically, examination of the relationship between a trajectory of the private life (or non-work domain), such as family or health, and how it interacts with the work domain to understand broader forms of intensity.

A clear strength of this doctoral research was its focus on the concept of time and mapping individuals’ experiences of intense work over time (a period of between ten months and two years). The time principle enabled the doctoral research to show the dynamism of intense work by shifting its understanding beyond a series of measures to a multidimensional experience. Extending the life course principles of time and place, the literature could prosper from follow up studies that map the individual’s experience of intense work across their working lives providing a longitudinal focus of intense work that examines the intersection of intense work for individuals at key life course stages. Studies with such foci could further capture the notion of intense work and its relationship with key life course events and social transitions. For example, the experience of intense work during pregnancy and post birth or the experience of intense work for individuals transitioning across jobs or even careers (as noted in Chapter Five) could be studied. Furthermore, a focus on key life events could shed
light on the peripheral constraints that influenced intense work, such as office location, which was an issue for Rhonda and Nina. The examination of individuals with more diverse life course experiences can also contribute to the consolidation of the model.

A longitudinal focus that maps the experience of intense work in individuals could also be fruitful for examining the impact intense work has on the longevity of careers – an area explored in this study that requires further examination. It was clear from the case study data that the experience of intense work had ramifications for extended careers. Questions relate to what are the age-graded perceptions associated with career accomplishment and intense work in workplaces of the future. Furthermore, what is the experience of intense work in the context of employability (or building new careers) at different stages of the life course? Comments from individuals alluded to tiring and a waning interest in maintaining skill sets and practices that created an intense work experience, more broadly. How can ageing IT workers, and working individuals for that matter, manage the intensity of meeting the demands of upskilling across their working lives? Does intense work have the capacity to shorten individuals’ working lives? The latter question is of particular interest given that government and policy makers in first world countries are strongly encouraging the opposite effect in light of demographic change. A longitudinal focus of intense work could provide welcome insights.

At the time of the research, the IT profile was largely dominated by young males which meant that the there were fewer older male workers in the sample. It is likely that the concept of intense work presents a unique raft of constraints and challenges for older workers who are potentially facing a range of life course transitions related to ageing, such as transitioning into retirement, the care of children and parents, downsizing, etc. The contemporary literature implies a preference for young, knowledge workers (Duerden Comeau & Kemp, 2008) and an ‘incompatibility’ of knowledge work for older workers underpinned by stereotypes of declining capacities with age (Brooke 2009). However, more research is needed to examine different experiences for older workers, particularly against a backdrop of demographic change and the more recent global financial crises (which has most likely impacted on the retirement incomes of older workers). A key research agenda that emerged from this study

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concerned the role of age and its relationship with the procedural knowledge of IT workers - is persistent, ongoing learning more effective for IT workers rather than trying to upgrade skills over extended periods of time?

Moreover, a larger-scale comparison of intense work experiences could be used comprehensively to examine how social contexts and cultural meanings influence the intense work experience and life course transitions of individuals. The following questions could be considered: How does the government influence these transitions and experiences of intense work? Do generous parental leave schemes and child-care options relieve parents-to-be from making investments in their careers that can create intense work agendas? Is the intense work experience less intensive for workers in countries that have more generous policies? The focus on government could reveal insights into the experience of intense work particularly in terms of national comparisons.

This doctoral study focused on individuals’ experience of intense work in the IT sector and its impact on their lives. Stories of intense work were presented from the perspective of the worker; yet, the concept of intense work has interesting ramifications when examined in terms of employers’ expectations of their people. What do organisations constitute as a fair day’s work? How do employers expectations align with workers’ perspectives of intense work in the workplace? What effect does it have on workplace issues, such as Occupational, Health and Safety (OH&S) legislation, performance management and overall workplace dynamics within the organisation?

Qualitative research design was used to explore the experience of intense work in this study and has resulted in broad applications for individuals and organisations. The emergent nature of this research has provided a platform to launch future studies of intense work in the context of the work/life interface, more specifically. In addition to the research agenda already raised, broad research questions of interest include:
• What effect does intense work have for parent workers? What is the experience for mothers and fathers?
• How does intense work affect parents and child-less workers?
• How does intense work influence life course transitions?
• What is the experience of intense work for younger workers (25 years and younger), middle-aged workers (26 years to 44 years) and older workers (45 years and over)?
• How does intense work affect the life course transitions of older workers (45 years and over)?

Summary
A main contribution of this thesis has been the proposition of a conceptualisation of the intense work experience in the context of the work/life interaction from the perspective of work. Comprised of two levels, the meta-level consists of the life course guiding principles that underpin the individual’s life events and transitions. The base-level has three main components: the intense work structure, the non-work structure and the interaction between the structures. All three components are in states of flux enabling each of them to change as the context changes. An individual’s experience of intense work can fluctuate and activities within an individual’s non-work domain vary from time to time. As a consequence, the impact of intense work on individual’s lives will change. This conceptualisation recognises diverse intense work experiences between individuals but also for individuals, as their experiences change over time. When brought together, the meta-level provides a lens for viewing how the life course of individuals underpins the experience of intense work in the context of the work/life interaction (the base-level).

Findings from the study have implications at a number of levels and recommendations pertain to organisational policy and a practice-based level, as well as at the level of the individual.
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APPENDICES

Appendix 1: The Recruitment and Selection of IT Firms and the Sampling of IT Workers for the WANE Study.

This doctoral dissertation is embedded in an international project, Workforce Ageing in the New Economy (WANE). The recruitment and selection of IT firms is noted in this appendix. It also includes the sampling strategy employed for selecting IT workers for face to face interviews.

**Sampling Criteria for the WANE IT Firms**

The WANE team had established specific criteria to select eligible IT firms suitable for the study. Firms had to be in operation for more than three years, they had to ensure that the conditions of their participation in the study did not compromise the data collection, and they had to primarily be in ‘software’ IT businesses.

Given the sheer size of the Australian continent plus budgetary and time constraints the Australian WANE team decided to limit their sample further. Bounding the geographic location was the most effective and efficient means of constraining the sample size. The east coast of Australia was selected based on its high concentration of IT activity in the country. Firms were recruited from Brisbane, the Gold Coast, Sydney and Melbourne.

The firms targeted for recruitment were consistently monitored to maximise the heterogeneity of the sample. Whilst the sampling rigor was inadequate to determine a maximum variation strategy the Australian sample provided ‘information-rich’ cases for in depth study.

**The Firm Sample Frame**

The development of a comprehensive sampling frame presented a number of challenges for the researchers of the Australian team. A comprehensive list of IT firms was non-existent and as such, the team attempted to locate a sample through a number of diverse strategies.
The release of a news item about the WANE project in a Sydney and Melbourne metropolitan newspaper was an opportunistic attempt to attract a sample. The article discussed the findings of preliminary research and invited expressions of interest from readers who had an IT company and were interested in volunteering their participation in the project. Approximately 20 individuals responded via email to the article, however, there were only seven representatives from firms. One organization was selected for the WANE project.

A further strategy was the enlistment of the Industry Liaison unit of the University to assist in the recruitment of IT firms. An officer of the Unit attended a careers forum hosted by the University and approached IT firms with information about the WANE study. The contact details of firms interested in learning more about the study were obtained and passed on to the team. The details of four firms were obtained, yet, only one firm was recruited. Further, we issued an official email from the Dean of Business and Enterprise to the university community which profiled the project and asked for the details of IT firms who might be appropriate to contact. Five responses were received which led to the recruitment of one firm.

The Centre for Business, Work and Ageing’s participation in conferences and seminars also provided an opportunity to profile the project and ‘call’ for IT companies to participate at seminars and conferences. Unfortunately we were not successful in securing firms through these means. Furthermore, the Centre drew on its existing relationships with industry, Board and Steering Committee partners to nominate firms for contact that were relevant to the study. This proved successful in the recruitment of another company. The team also contacted ‘interesting’ key informants in the IT field and asked for an opportunity to speak at key events with fellow IT companies. One firm was recruited through this means.

A sample frame was compiled from the member organisations of key associations including the Information Exchange, the Micro Business Network and MultiMedia Victoria. Four organisations were recruited for the study through this avenue including Company A. A Business Information Kit was disseminated to the web mail group of the IT Skills Hub and members of the Australian Computer Society (ACS) – both attempts were unsuccessful. The sample frame was also enriched by listings in the Yellow Pages with relevant firms receiving ‘cold’ emails with the Kit as an attachment. This channel secured Company B for the WANE project. IT technology parks in QLD and NSW were visited by team members resulting in the recruitment of a large sized firm.

**Individual Sample Selection**

Demographic information about the firm’s people including age, gender, job position, duration of employment and employment status was requested of all cases to compile an interviewee sampling framework. In all cases with approximately five people the total number of employees was asked to volunteer for an interview to ensure the anonymity of participants. For cases with approximately six to twenty people the team attempted to select for multiple
variation targeting for age, gender and job position; however, attempts to include variation were significantly limited by variation with the firms.
Appendix 2: Expression of Interest Letter

The Experience of Work Intensity at Different Stages of the Life Course

The data for the Workforce Ageing in the New Economy (WANE) project is currently being analysed and a company and a general country report for Australia are being compiled. From the data analysis it is apparent that workers experience different forms of work intensity which impacts in various ways on the lives of workers.

In addition to the WANE project I am currently working on my PhD study which is interested in IT workers experiences of work intensity and how it impacts on their lives. More specifically, what are the intensities and pressures that different workers in the IT sector experience in relation to their work and how do workers reconcile these intensities of work within their lives? Whilst some of this data was collected through the face to face interviews we conducted for the WANE project I would like to conduct further research and examine this topic in greater depth.

I am currently looking for people who would like to be re-interviewed for my PhD study. The interviews are expected to take approximately 45 minutes to an hour in duration and take place in workers own time outside of work. A meeting place for the interview can be negotiated at your convenience. Like the WANE project, your participation is entirely voluntary and the information that you provide will remain anonymous.

More information about the study can be obtained via email or by phone

Many thanks
Cheree Topple
c topple@swin.edu.au
9214 4319
Appendix 3: Observational Checklist

The following questions act as a guide to inform our observations throughout the fieldwork phase.

Work space

1. Where do employees work? [Suggestions: at workplace, at client sites, at home]

2. What is the size of the office? Approx. square metres

3. What is the plan of the office? [Suggestions: open plan layout with or without dividers, individual office spaces / rooms, conference rooms, two storey workplace]

4. What is the division of space for people working at the company? [Suggestions: all people at the company work in the same space, managers/owners have a separate space to workers]

5. How are desks and work stations arranged in the space? [Probe: facing each other, desks in each corner]

Description:________________________________________________________________________________________
___________________________________________________________________________________________________

6. Does the workplace have?
   - Meeting rooms
   - Kitchen
     - Kitchen appliances
   - Library bookshelves
   - Appropriate
     - lighting
- ventilation
- access to emergency exits

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

- Signage
  - OH&S signage
    - Emergency exit signs
    - Fire extinguishers /blankets
    - Fire alarms / sprinklers
    - Workplace safety posters (e.g. eye exercises, correct posture)
  - Company posters / banners / noticeboards (e.g. football tipping, staff social clubs)
  - Products or service related posters (e.g. Microsoft products posters)
  - Client posters or advertisements
  - Personal posters / signage / photos

- Other

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

**Work Environment**

7. How are people grouped? [Suggestions: individually, in groups / teams, with the team leader / manager / owner?]

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________
8. What is the noise level in the work environment? [Suggestions: silent work environment, minimal verbal communication between people in the company, clients visible in the workplace, phones ringing, conference calls]

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

9. Does the noise level fluctuate? Where are the noisiest centres? [Suggestions: customer service staff, management meetings]

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

10. The content of communication amongst the company’s people. [Suggestions: verbal communication about work issues, general ‘chit chat’, non related work discussion]

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

11. What is the office atmosphere like to the researchers? Describe the emotional climate? [Suggestions: tense, relaxed, intimidating, welcoming]

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

12. Does the emotional climate of the office fluctuate? How?

Description:_________________________________________________________________________________________
___________________________________________________________________________________________________

13. What communication exists between the company's people and the ‘external world?’ [Suggestions: email, Internet, Phone, Fax]
14. Breaks from work, such as lunch breaks, are spent: [Suggestions: on their own / with other colleagues or clients, doing work related / non-work related activities]

Description:_________________________________________________________________________________________ 
___________________________________________________________________________________________________
Appendix 4: An Example of a Detailed Summary Sheet

Detailed Summary Sheet for X (2/2/06)

The Interview Place

The interview occurred at 10am in an available meeting room in the company offices. X seemed keen to go to a tiny café downstairs and get a coffee. Although I was happy to do this, I informed him that we needed a quiet place for the interviews to be recorded. I don’t know if he wanted to get coffee so he could talk more openly or freely in the interviews but the interview venue really didn’t restrain him. I was really surprised that he was talking as crudely and honestly as he was. There were people in a meeting room opposite us (business partner (facing out to us) and four others (with their backs towards us), and then some people in an office next to us. They really wouldn’t have been able to hear us. I closed the door behind us, I don’t know if he would have but then again there really wasn’t enough room for him to lead me in and then turn around behind me and close the door.

The interview was recorded. We were generally chit chatting on the way into the room and once we sat I asked X if he minded if I started recording as he was talking about the take over the company and how his job had changed, which was relevant to the interview. One thing not to disregard is that I caught X at a fairly stressful time. Apparently, the Friday before he had his first stress day. I ask myself why and how he had time to participate in the study but my sense is that he needed some time out. At the beginning of the interview he told me that he had to be out by 11am. The alarm went off at 11am but he kept on talking for another 20 minutes. At the end of the interview he walked out the door and laughingly said that was a release for him and as walked off he said he felt like he had been to a therapy session (I can’t remember if these were his exact words). Later that night I received an email from one of his colleague’s (in relation to my study) which said that X found the session therapeutic and that it cost less than going to a psychiatrist.

I think the rapport was pretty good. I think his answers were very honest and raw and I think that he felt pretty comfortable talking to me about his work. I think this was pretty evident from his disclosure about his weight and need to keep fit. I wondered if this was in relation to a colleague who had resigned because of a terminal illness. He disclosed a lot of information and I wonder if this was because he was just venting.

Questions Asked and the Flow of the Interview Schedule

Like the first interview with X, he set the direction of the interview which covered the issues and themes of my schedule. The flow of the interview stemmed from how his job had changed with the takeover of his company which had led to feelings of stress, frustration and siege.
The questions I did ask him were about work and where it was positioned in his life. I did not get to ask him at all about what was his understanding of work intensity. I felt that he had covered many of the themes I had listed in my interview schedule without me heavily fishing for them. I quite liked this as it meant that his responses were unprompted and that I wasn’t putting words in his mouth or guiding his thinking.

At times when I asked him questions, he responded, “good question”. I think the questions, the few that I did ask, were well executed. The questions I asked were highly relevant and shed some interesting light on the topic.

Responses

The use of language in his responses

- X used the words “stress” and “frustration” often throughout the interview.
- When asked to describe ‘how he felt’ (?) he definitively answered, under siege.
- I didn’t get to ask any questions about work intensity, I didn’t even use the word in the interview.

Overall

- Seemed completely overwhelmed by the multiplicity of tasks
- Although he still sees himself as a business owner he does have more pressures, if you want to call it that, imposed on him. For example, he is accountable for shareholders monies
- From the last interview he talked in great detail about technology and the need for people to work 24/7 so to speak in their jobs and then additionally, at home to master and develop their skills. He actually revealed in the second interview that his interest in technology has been waning over the last few years. I did ask later in the interview what this was attributed to...
- It seems from the second interview that the stressors he is very much aware of, he was able to identify them to his doctor, are related to his new role which appears to be “people problems”.
  - No longer a culture that reflects the high performance, quality skills and innovative clever solutions. The quality is no longer in the product
  - The structure of the new company had six layers which X & (anon) have removed two levels. Old staff who were very much accountable, quality staff who worked as part of a flat structure, were raising problems with working with their new colleagues, who were classed as
senior developers who didn't apply equivalent of better expertise to problems.

- He had his first stress day off from work because he couldn't deal with the stress. Went to the doctor because he was so concerned.

- I’m thinking that maybe his stress has been brought on because he is now expected to work in an area, the people area, where he has little experience. The issues of paramount concern also include the recruitment and retention issues around employing quality staff who are accountable and can deliver quality product which will lead to a higher share price.

- He mentioned that he just had so much to do that he is now resigning himself to time. If things aren’t done by a certain time, well so be it. He doesn’t have the hours to get it done.

- Probably another issue for him is that he has been able to do things well and now because he has so many things to address he feels he can’t do them all well.

- I wonder about the issue of adaptability as people get older or when they're at different stages of their life course, (even though at the beginning of the interview, X said things weren’t because of age and experience – check on this reference). When X was younger he worked his job and 40 hours on teaching himself stuff in his own time. Why can’t he do that now? What are the things that mark the difference between these two stages of his life? Is it because tech stuff is easier to learn and acquire, it exists in a different form, than what it is to take on the people skills associated to the work that he has to do now? What is it about these two different stages of his life?
Appendix 5: A Sample of the Interview Guide

SEMI-STRUCTURED INTERVIEW QUESTIONS

Ice breakers

• I’m interested about your work. Can you tell me about your job and what you do?

Probe: Team / individual, Autonomy, how is work distributed between team members?

• Has anything changed since I last spoke to you?

Work and Life

• Work – the wants and gets from work

• The priority of work in life

• The integration between work and overall life - What are your thoughts about how you have managed to 'balance' these efforts across these spheres of your life? How do you feel about that?

From last year’s interview...

From last year’s interview you made the following comment:

“The thing I like about this particular job is I feel challenged and I feel I’m constantly doing new things and learning new things and, you know, expanding my capabilities and taking on new things that a couple of years ago I would have considered too daunting and having those opportunities now and being able to have a go at it and finding I can cut it with them. Things like, you know going out and talking to CEOs of other companies and big wigs at Telstra and things like that and being put on the spot and being able to come up with intelligent answers and convincing answers and inspire confidence to them”.

• You make the comment that a few years ago you would have found this experience too daunting. Can you unpack that? What is it about the situation you were in last year that enabled you to enjoy it and almost thrive on it, that you didn’t have a few years ago?

• This is really interesting because there would be people who wouldn’t like an environment that is challenging, requires workers to do and learn new things. What is it about you that sets you apart from those people?

• At what point, if there is a point, would the challenges tip you over the edge? Is there a fine line between the challenge of work and being challenged beyond coping and delivery?
• **The work environment - culture**

I’m interested to hear about your work environment and also the nature of how you work in relation to achieving your tasks within the company. (Work environment & how do you work)

**What is work intensity?**

Work can be described in many ways and more recently in various media work has been described as intense or demanding.

- What do you think they are referring to when they describe work as intense?
- What words or phrases would you use to describe the way you work?
- How would you describe the way that you work in this company? *(Try to evoke their language)*

**The future...**

- From the first round of interviews I conducted with people last year there was a feeling among some workers that the way they work had changed with time or that they expected it to change as a result of changes in their life course such as with parenting, general ageing or re-training. For various reasons, this had prompted some critical changes to their work life, such as changing jobs or career paths, continuing their formal education or moving into casual or part time work. **Probe:** past, present, future
  
  a. Can you tell me if you have experienced this first hand up to this point in your life? Have you thought about it?
  
  b. How do you see the way that you work changing in the future?
  
  c. What do you think will prompt the change?

**Demographic Questions**

- Age
- Marital status? Children?
- How long have you been in the industry?
- How long have you been with the company now?
Appendix 6: Transcription Guidelines

If you have any questions regarding transcription guidelines, please contact Cheree on xxxxxxxx

This briefing is designed:

- to summarise the aims of the study for the transcriber
- to achieve consistency in the transcription of face-to-face interviews for the study
- to detail the format for the interview transcripts.

The Study

‘The Experience of Work Intensity for Workers in the IT Sector’ is a PhD study embedded in the Workforce Ageing in the New Economy (WANE) project. WANE is an international project that aims to examine employment and human resources issues in the information technology sector in Australia, Canada, the United States, and the European Union. The project examines the relationships between workforce ageing, employment growth in information technology labour markets, and changes in employment relations in the new economy. See the WANE website for more details: www.wane.ca.

The Interview Recordings

The study has recorded face-to-face interviews using a portable mini disc player or Mp3 player. Data files are:

- downloaded onto the C drive for storage on computer hard drive (C)
- backed up on a Rewritable CD and external hard drive for archiving
- exported to a second CD for dispatch to the transcriber
The Data Analysis

The WANE team has adopted NVIVO as its computer assisted data analysis software tool. Please save files as both word files and rich text format files for ease of use.

Transcription Guidance

Each transcript should be headed with the:

- Name of client, i.e. Cheree Topple
- The project, i.e. WANE Australia
- Digital track number of the file
- Length of recording

All information should be treated as confidential

- Due to the nature of recording on Mp3, the interviews are broken up into several tracks. Please put all corresponding tracks into one file. i.e. each interview should be one word file.
- Please note the track time at the end of the interview
- Dialogue should be transcribed verbatim, including repetitions except where there is an obvious speech impediment.
- We are interested in capturing silences, laughter and other expressions which seem significant.
- Pauses, background sounds, etc are transcribed as: [PAUSE], [BACKGROUND SOUNDS], etc.
- Completely unclear dialogue is transcribed as: [UNCLEAR]
- Uncertain dialogue is transcribed phonetically followed by: [Phonetic Guess?].

Two or more people speaking simultaneously rendering dialogue unclear is transcribed as: [MULTIPLE SPEAKERS]

Q = INTERVIEWER

M = MALE RESPONDENT

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A Sample Transcript

Client: Cheree Topple, Swinburne University

Project: WANE

Digital track number: VOC_34.wav

Length of recording: 1 hour 27 mins

Q  What do you see as the major challenges facing company x right now?

M  We are facing tremendous threats from our global competitors, like Fishcake and Sandwich Filler, although [PAUSE] now I come to think of it, our biggest threat is from the offshore companies.

Q  Is that recent?

M  Yeah. The last few years.

Q  What impact is that having?
M Well, my view is that [LAUGHTER] we haven't a chance of survival.

**Completed transcripts, invoices & CDs**

The finished transcript should be saved as a Word Document, using the digital track number in the File Name. As each transcript is completed, please send the electronic file in both rich text format and word file as an attachment by email to ctopple@swin.edu.au

Please itemise each invoice with track times. When the transcripts are completed, the CD should be returned by post to:

Cheree Topple

Swinburne University

Internal Mail H95, PO Box 218, Hawthorn 3122.
Appendix 7: Ethics Clearance Form

All conditions pertaining to ethics clearance were properly met, and annual/final reports were submitted, when requested, throughout my Ph.D candidature.

Swinburne University of Technology

Human Research Ethics Committee (SUREC)

Certificate of Approval

Project Title: Workforce ageing in the new economy

SUREC Project No.: 0422
Chief Investigator: Brodie, A/Prof E

Other Investigators: Prof Louise Richardson
Dr Chia Sutijjawala
Ms Pierre Toppie
Ms Karina Leardham

For period from: 03-Oct-94 to: 31-Dec-05

Approved for (men): 213 male participants
and 80 female participants

Approval is granted subject to the following conditions:

Researchers are required to immediately report anything which might warrant review of ethical approval of the protocol including: (a) serious or long-term adverse effects on participants; (b) proposed changes in the protocol; and (c) unforeseen events that might effect continued ethical acceptability of the project. If the research project is discontinued before the expected date of completion researchers must inform SUREC.

A progress report must be submitted annually.

A final report must be submitted at the conclusion of the project.

Special Conditions as indicated below:

[Additional doctoral studies component approved for Ms Toppie]
Appendix 8: Information Statement

The Experience of Work Intensity at Different Stages of the Life Course

INFORMATION STATEMENT

The Experience of Work Intensity at Different Stages of the Life Course is the PhD study of Cheree Topple, a PhD student from the Swinburne University of Technology, Centre for Business, Work & Ageing. The study is embedded in Workforce Ageing in the New Economy (WANE), an international project that aims to examine employment and human resources issues in the information technology sector in Australia. Whilst the WANE interviews were tailored to capture the breadth of employment and human resource issues in the IT sector the PhD study has a greater focus on examining the experiences of work intensity for workers in the IT sector and how these experiences translate and are reconciled within workers lives.

The PhD study will complement and build on the findings from the WANE project. Results from the PhD study are expected to inform and be translated into human resource management practices and policies that address issues of workforce ageing, life course transitions and barriers to employment, and their impact on labour flow issues within the industry. Where the findings of the WANE project are presented as IT company reports and a more general Australian IT companies report, the PhD study will provide a unique insight into the lives of workers in the IT sector in Australia.

Data for this study will be collected by Cheree Topple through face to face interviews. The interviews will take approximately 45mins. to 1 hour in duration and will be conducted outside of the participants work hours. Participation in this study is entirely voluntary and if you agree to participate you may withdraw at any time by informing the researcher.

The information obtained from the interviews will be used solely by Cheree Topple under the academic supervision of Dr Libby Brooke and Dr Pam Green. The data collected for this study will be stored for five years as prescribed in the University regulations. The data collected for the PhD study will be matched with data collected for the WANE project however participants’ privacy will be maintained through the coding of respondents personal details. Access to the coding information will be limited to the PhD student and the academic supervisors.

This research will be published as a PhD dissertation performed for the WANE project commissioned by the University of Western Ontario. Any questions that have not been adequately answered by Cheree Topple can be directed to the Senior Investigator of the WANE project, Libby Brooke of the Centre for Business, Work & Ageing on 03 9214 5949, lbrooke@swin.edu.au.

If you have any complaints about the way you have been treated during the project please write to:
The Chair
Human Resource Ethics Committee
Swinburne University of Technology
PO BOX 218
HAWTHORN, VIC, 3122
Or Phone: (03) 9214 5223.
Appendix 9: Informed Consent

The Experience of Work Intensity at Different Stages of the Life Course

INFORMED CONSENT

I agree to participate in Cheree Topple’s PhD study, ‘The Experience of Work Intensity at Different Stages of the Life Course’, which is embedded in the ‘Workforce Ageing in the New Economy’ project. I realise that my participation is voluntary and that I may withdraw at any time.

I have read and understood the information provided and any questions I have asked have been answered to my satisfaction.

I agree that the interview may be recorded on audio tape as data on the condition that it will not be included in any presentation or public display and that the information is used solely for the PhD study.

I agree that research data collected via the interview for the study will be published as a PhD dissertation on the condition that my anonymity is preserved and that I cannot be identified.

Name:  …………………………………………………………………………………

(Please Print)

Signature:  ……………………………………………………………………………

Date:    /   /
Publications Arising From This Thesis