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IN THE SHADOW OF THE CLOCK
WORKING TIME IN THE IRISH SOFTWARE SECTOR

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Submitted for the degree of PhD

Trinity College Dublin

2003
DECLARATION

This thesis has not previously been submitted as an exercise for a degree at this or any other university. The work is entirely my own. I agree that the Dublin University Library may lend or copy the thesis on request, subject to normal conditions of acknowledgement.

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(Aileen O'Carroll)
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There are not enough opportunities in life to say thank you, so forgive me if I make the most of this one.

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To my crack team of demon proofreaders, ta very much.

*To Dermot, for his edgy charm, in sickness and in health, thank you.*
SUMMARY

This thesis is concerned with working time in the software sector in Ireland. It examines its nature and the way in which it is organised.

Twenty-two people were interviewed over the course of a year about various aspects of their working experience. These participants were from a variety of software companies. They represented both male and female employees, and both developers and non-developers. They filled in time diaries in which they noted their starting and finishing times and details about the breaks they took. These were completed for periods of one week, at five points in the year (October 1999/September 2000). The data from these diaries was analysed using SPSS. The participants also completed time diaries in which they noted what they were doing at half hour intervals for a 24 hour period. These were also completed five times in the year. These diaries were used to inform the interviews (which took place at three times in the year). The data from the interviews was analysed with the help of Nudist.

In this thesis I examine various aspects of working time in the software sector. Working time in the sector is characterised by the interplay between flexibility and autonomy. Working time is irregular. From the results of the time diary data on the length of the working day, I found that while a large minority worked long hours (more than 45 hours a week), the working hours in the sector are similar to that found in the general population. I examined the factors which influence the hours worked in the sector and drawing from the interview data describe working time practices and preferences. Building on Thompson's discussion of orientations to working time I produced an account of the orientations to working time found in this sector. Here we
find an orientation which draws on differing expectations of what is normal or reasonable rather than on the clock.

I examined the nature of working time within these workplaces and within the working day and uncovered the existence of competing temporal rationalities. The time of the work process is shown to encompass grey times in which work is not quite work, and breaks are not quite breaks. These grey times of the work process ensure that it is not conducive to organisation by the clock. When focusing on the boundaries between work and non-work, I again discovered the existence of competing temporal realities. Here corporate time seeks to define non-work time as 'emergence' or 'optional' time while some of the participants seek to maintain the traditional boundary between work and a private, personal and separate time of non-work. I outline instances in which the boundaries between work and non-work are solid, blurred or have dissolved.

The thesis also considered whether the intellectually engaging nature of work in these industries has fundamentally changed the relationship between work and play. I found that despite the promise offered by this type of work, work has not become play, as the timeframe within which the work is conducted is the timeframe of abstract planning rather than that of the work process itself. I found that in these industries work is decentred so it becomes one sphere among many, additionally relationships are formed as much between workplaces as within workplaces. Work is no longer as central in terms of relationship formation and hence one's sense of identity does not solely revolve around work.
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LIST OF ABBREVIATIONS

CSO  Central Statistics Office
EU   European Union
GDP  Gross Domestic Product
ILO  International Labour Organisation
IT   Information Technology
NSD  National Software Directorate
QNHS Quarterly National Household Survey

Nudist  A software program used in qualitative data analysis
Spss  Statistical Program for Social Scientists

The general industrial classification of economic activities within the European Communities is coded according to the NACE sequence of codes. NACE is a hierarchical classification, with 60 2-digit codes, 222 codes at 3-digit level and 503 at 4-digit level. Below are the NACE codes for computer and related activities.

NACE 72 Computer and related activities:

This includes:
71.1 Hardware consultancy
72.2 Software consultancy and supply
72.21 Publishing of software
72.22 Other software consultancy and supply
72.3 Data processing
72.4 Data activities
72.5 Maintenance and repair of office, accounting and computing machinery
72.6 Other computer related activities
For physicists, time is an objective measure: if is not observable it is nonetheless quantifiable. In society however, time is subjective. It has diverse meanings, which depend on various types of social contest. This is why proverbs such as 'time flies when you're having fun', 'a watched pot never boils' or the Balkan proverb 'a clock is a lock' exist. We all know that an hour spent in rush hour traffic has a very different meaning to an hour spent talking over a pint with some friends. Time varies from culture to culture and within cultures. Parents of a newborn baby quickly realise that their new child's sense of time is often at odds with the arrangements of the rest of society. Our understanding and experience of time is very much central to our experience of life itself.

Much of how we experience life is governed by our working time. At the basic level, the position work plays in our life is partially determined by the length of our working day. For time spent at work is time not spent at home, at leisure, in the community or fulfilling other activities. Many writers have pointed out that work-time also impacts on the rest of our lives in that the way we see work-time, can become the way we see all time.

It is argued that work time, in particular work time in capitalist enterprises has a particular meaning of its own (Thompson, E. P. 1991, Adams, B 1994). With the industrial revolution, time became something that was linked to productive ability, something to be saved, not spent, something that was equated with money. Along with the rationalisation of the work process, came the rationalisation of working time.
Since the invention of the clock, time and technology have been closely linked. Now with new technologies, will our perception of time alter? Contemporary information technologies operate at speeds so fast as to be almost beyond comprehension. The market they supply changes rapidly and its global nature ensures that it is open twenty four hours a day. With industrialisation, clock time became hegemonic, idleness became a sin. Will speed now become the measure by which we organise not just our work, but the remainder of our lives?

Work used to be measured by the clock, the difference between a clearly defined hour of starting and finishing. Now with machines running continuously, with flexible hours of coming and going, with an increased emphasis on speed of transition and performance, can this really be said? What happens when the organisation of work changes?

It is widely argued that the Fordist bureaucratic organisation is being replaced by something that is often simply characterised by the word flexible. There are, of course, a number of ways in which this flexibility can be expressed (these will be dealt with later). At the root, however, of all the different forms, could be an attempt to negotiate a new time contract. If this is the case, does this affect how we perceive time at work and out of work? In this thesis, evidence that working time is a core feature of flexibility will be considered. Possible aspects of a new time contract such as the self-management of time, the duration of the working day and the organisation of time within work will be examined.

This thesis is also concerned with the type of work found in the Irish software industry, part of what is sometimes referred to as the 'knowledge industry'. In 1995, as part of a M.Soc.Sc thesis, I interviewed a number of Irish software workers. The people I met were young and enthusiastic, they
enjoyed their work, they loved the technology and they spent long hours on the job. Indeed, one even described how his missed his machine while on holiday,

When I used to go away for the summers working, when I got back I used to love being back and even just, I know it sounds ridiculous, even just playing with the keyboard, even just typing, going click, click, click. (Iain).

The impression was that, as far as work was concerned, this was as good as it gets; stimulating, engaging and well paid. They were free to wear what they liked and work when they liked. The impression was that this freedom translated into a preference for jeans and tee-shirts and evenings spend sitting at a neon screen. Preference seemed key. Did they really choose to fill their working lives with work? When asked if, on winning the lottery, they would continue working, they answered in the affirmative, but would change the conditions,

I think I'd cut back hours maybe or ...do it more selectively, so I'd do it maybe for a couple of months and take a couple of months off or something like that... (Fiona)

I would take half time, I can't afford to at the moment, but obviously yeah, and I'd saunter home to my country house, at One O'clock in the day. (Deirdre)

Behind all these answers lurked time, a pervasive variable in life. Time seemed to be the key to uncovering the complex relationship between computer work as paid employment, computer work as play and computer work as lifestyle choice. To understand how software engineers felt about work, it was necessary to ask how they perceived time. To understand how they spent their working day, you had to ask them what they were doing with their time. Is it that technology has provided us with a form of production that fulfils our needs for intellectual
activity, that blurs the boundaries between work and play, and with workplaces that are sociable and un-constraining in nature. Yet for all this, has a time trap also being created which will ultimately degrade our lives outside the company door?

To summarise and to place working time in a larger context, why look at working time? Working time is interesting because much of our experience of life is shaped by its temporal structure (by which I mean, the duration of the working day, the pace of work, the seasons of work, and all the various facets of working time). Our perception of working time colours our understanding of time in general.

This is important because some of the problems that have been identified, particularly in the Ireland of the Celtic Tiger - problems involving transport, child-care, even care of the elderly - are, partially at least, time-problems. Therefore the solutions to these problems are going to be thought about, considered and conceptualised within the framework of working time. And it could be that this is a framework that does not allow for satisfactory solutions.

These, however are a bigger questions and beyond the remit of this thesis. Before we can approach them we must start at the beginning, that is, with working time and the factors that affect it.
CHAPTER ONE: INTRODUCTION

Once we ask who structures whose life, what rules are adhered to, and how these processes occur, then timed social life becomes fundamentally embedded in an understanding of the structural relations of power, normative structures and the negotiated interactions of social life (Adam 1994: 109).

In this chapter I outline the parameters of the thesis and detail the way in which the argument is structured. The development of high-speed information technologies has led many theorists to suggest that our sense of time and space has fundamentally altered in recent years. In the first half of the chapter I discuss the relationship between our understandings of time and the way in which work is organised. I outline the way in which many sociologists have highlighted the socially constructed nature of time and how it has changed in varying circumstances. In particular, the dominance of the clock has been linked with the rise of the factory which accompanied the industrial revolution. I suggest that the work organisations of post-industrial society are accompanied by their own particular types of time. The aim of this thesis is to explore the time of one specific type of post-industrial organisation; the software workplace. I outline the aspects of this workplace which impact on the way time is organised within them. In the second half of this chapter I focus in more detail on these aspects. I describe four areas in which the time of the organisation comes to the fore. It is by examining time within these four areas that a richer description of time in these industries is developed.
1. WORK, TIME AND SOCIETY

Post-Industrial Time

In recent years many theorists have identified a change in the way time is experienced in society. Castells speaks of ‘timeless time’, a global time not located in any particular space (Castells 1996), while Urry uses the phrase ‘instantaneous time’ to symbolise the enormous speeds by which information technology operates and the increased importance of the ‘exceptionally short-term and fragmented time’ (2000: 126). Using the phrase ‘time-space distantiation’ Giddens describes the processes by which time and space become dis-embedded. Social relations stretch overtime and space, thus control can be exercised from great distances. The futures market in coffee based in London and New York is an example of a relationship that stretches both into the future and across the globe (Giddens 1984). Harvey suggests that the increasing rate in market turnover, the speed up in production systems, the ability to organise production from great geographical distance, is leading to a shortening sense of time:

We have been experiencing, these last two decades, an intense phase of time-space compression that has lead to a disconcerting and disruptive impact upon political-economic practices, the balance of class power, as well as upon cultural and social life (1990: 285).

Measurement of time according to the clock occurred with technological advances and in response to the needs of the economy. The spread of the railways and telegraph gave rise to standard time which enabled different local and global areas to synchronise their times (Zerubavel 1982). Lee and Liebenau describe ‘internet time’; a new time standard invented by Swatch in which the time of the internet is the same whether accessed at 10 am in Ireland or 5 am in New York (Lee and Liebenau 2000). They identify this as the most recent attempt to
construct time in line with the dominant technology of our society. It is suggested that part of what is new in our experience of time can be found by looking at changes in the nature of work time and in the relationship between work time and non-work time ((Sennett 1998); (Hochschild 1997)). Many commentators take a pessimistic view of these changes, citing a number of developments – the practice of being on call, shift-work, late opening - which ‘represent a further encroachment of the sphere of work on periods traditionally reserved for leisure and renewal’ (Hinrichs, Roche et al. 1991: 3). They argue that we are witnessing the spread of working time into our non-work lives, a point emphasised here by Hochschild, following interviews with employees in a ‘family friendly’ US corporation.

The social world that draws a person’s allegiance also imparts a pattern to time. The more attached we are to the world of work, the more its deadlines, its cycles, its pauses and interruptions shape our lives and the more family time is forced to accommodate to the pressures of work. In recent years at Amerco it has been possible to detect a change in the ways its workers view the proper use of their time: Family time, for them has taken on ‘industrial time’ (Hochschild 1997: 45)

These metaphors and concerns highlight that time can be the framework for organising society, the medium through which society is experienced and a reflection of that society. Time is a dynamic entity, socially constructed, its meaning and character changes from culture to culture, from era to era. The problem facing us now is to understand how time in a post-industrial society is experienced and manufactured.

Social Time And Clock Time

Sociologists have long understood the social nature of time and have sought to link our understandings and organisation of time with the type of society we live in. The most immediate distinction made by sociologists has been between time
measured by the clock, clock time, and 'other time'. Approaches to social time have varied. For Durkheim time was greater than the individual, rather it was a product of collective consciousness, a collective phenomenon. It is the combination of all the temporal activities within a society and as such forms the cultural rhythm of society. He asserted that 'it is the rhythm of social life which is at the basis of the category of time (Durkheim 1915/1968: 69).

Sorokin, in connection with Robert Merton, provided a functional analysis of social time (Sorokin 1937). They focused on the qualitative aspects of time. At a macro level, time is 'fixed by the rhythm of collective life' while at the micro its meaning is relative and specific to particular contexts. Social time is defined by Hassard as referring to 'social processes and to the intersubjective conceptualisation of social life, rather than to the mechanistic structuring of social events' (Hassard 1990: 6).

Gault speaks of kairological time, a time in which what is done in the present is informed by what has happened in the past (rather than by the timing of the clock) (Gault 1995). For example, if we go to sleep because we are tired, we are living under kairological time. If we go to sleep because it is twelve o'clock, irrespective of whether we want to or not, we are living under clock time. Gurvitch (1964) describes eight different types of time (enduring, deceptive, erratic, cyclical, retarded, alternative, pushing forward and explosive) and argues that time is experienced on two different levels. There is the 'hierarchically ordered and unified' time of social structure and the 'more flexible time of society itself (Gurvitch 1964: 391). He distinguishes between social time and clock time, suggesting that the former is 'not always measurable and even more not always quantifiable'. Adam speaks of 'embedded time' or 'cultural time' (Adam 1995). Time, being socially constructed, is also seen as a medium of social meaning.
Anthropological studies, often make a distinction between clock time and 'other' time (Whorf 1956); (Evans-Pritchard 1940/1969; Levi-Strauss 1963/1972). This is often expressed as a distinction between time experienced in industrial modern societies, and time in pre-industrial cultures. In the former, time is seen as linear. We conceive of the past, the present and the future. Events happen along this time scale, and are fixed at certain points on this scale, as Hassard explains:

For the industrial age progress is the key. Here the past is unrepeatable, the present is transient and the future is infinite and exploitable. Time is homogeneous. It is objective, measurable and infinitely divisible (Hassard 1990:12).

They suggest cyclical time in contrast is experienced in stationary, slow-moving societies. Closely linked to natural rhythms, events are perceived as reoccurring, 'everything lives, dies and is born'. There is little understanding of there being a past or a future. Time exists in the present, and is seen to be reversible. Adam strongly argues against this distinction on a number of levels. She states that firstly circular time is most often defined in terms of what it is not; it is not linear time. Yet this linear time, our time, is itself not analysed. Secondly, she argues that whether a society is perceived by a researcher to be dynamic or static can just be a reflection of the time frame and analysis used: 'We recognise a cyclical structure when we focus on events that repeat themselves and unidirectional linearly when our attention is on the process of the repeating action (Adam 1994: 38)'. Finally, she argues against the idea that time in any culture is seen as reversible; the concept of 'circular time' does not for her capture the essence of 'other time':

Cultural life constitutes time, entails time and is enacted in time: It creates a new past and a new future and involves time as a sequence, duration, intensity, passage and irreversible direction (Adam 1994: 39).
She also points out that a problem with posing 'circular' time in opposition to time experienced in 'industrial societies is that it tends to ignore the multiplicity of ways in which time is experienced in today's society. Along with linear time, there is an 'embedded time, common to humanity' (1994: 25).

Many of the approaches to time outlined above have in common a perspective which sees time in terms of post-industrial society ('other time') or industrial society ('clock time'). While these descriptions highlight the social nature of time, other accounts focus on how with the industrial revolution time became synonymous with time measured by the clock (Thompson, 1991; Adam 1994). As Adam asserts, clock time dominates over all other understandings of time and: 'has become reified, internalised and imposed' (Adam 1994: 27). Clock time is everywhere; in hours of work, the timetables of transport, in shop opening hours, the programming of television, the timing of films. It influences when and for how long we can drink in a pub with friends. Adam explains:

As long as we remain part of a society that is structured to the time of clocks and calendars our activities and interactions with others can only escape its pervasive hold to a very limited extent (1994a: 106).

For Urry 'clock-time is an appropriate metaphor for 'modern times' (Urry 2000: 14). It is to this relationship between industrial society and time that I now turn.

**Time and the Industrial Work Organisation**

In industrial society time was primarily constructed to serve the needs of industrial capitalism. 'Time and space' in the words of Harvey, 'both get defined through the organisation of social practices fundamental to commodity production (Harvey 1989: 239). Changes in economic social practices can alter time's
meaning. Le Goff, looking at the early middle ages, concludes that then:

Labour time was still the time of an economy dominated by agrarian rhythms, free of haste, careless of exactitude, unconcerned by productivity - and of a society created in the image of that economy, sober and modest, without enormous appetites, understanding and incapable of quantitative efforts (LeGoff 1980: 43).

Along with the rationalisation of the work process came the rationalisation of working time. Industrialisation concentrated workers in the factories and required synchronisation of labour. Clock time refers to the abstract ordering of social life that accompanied industrialisation. It is important to understand clock time, not as something natural and automatic, but as something imposed. Clock time is not just a technology, but also an ideology; a belief system. The quote below is but one example of propaganda aimed at convincing the populace that time-wasting and idleness was not only a sin, but could cause injury to one's physical or mental health.

'By soaking ... so long between warm sheets, the flesh as it were parboiled ... becomes soft and flabby. The nerves, in the meantime, are quite unstrung'. (John Wesley, 1786, quoted by (Thompson 1991: 392).

With the industrial revolution, time became something that was linked to productive ability, something to be saved, not spent, something that was equated with money. Time becomes a commodity to be used efficiently. To quote Thompson; 'In mature capitalist society all time must be consumed, marketed, put to use; it is offensive for the labour force merely to 'pass the time' (1991: 395). Marx identified time as the medium through which the commodification of labour was calculated. For Weber, the spirit of capitalism included a time sense which centred
around maximising one's productive efficiency and minimising all other types of time:

Waste of time is thus the first and in principle the deadliest of sins. The span of human life is infinitely short and precious to make sure of one's own election. Loss of time through sociability, idle talk, luxury, even more sleep than is necessary to health ... is worthy of absolute condemnation (Weber 1904-5/1930: 158).

He cited as example Benjamin Franklin's now famous aphorism 'time is money'. Thompson argued that a perception of time which is grounded in our experiences of work has become the dominant perception of time in society. It spills over into the rest of our lives. He details how time-discipline was first imposed, through use of force and morality, and then became internalised. Society adopted the protestant work ethic and with it a frugal approach to all time. In examining the transformation to industrial capitalism, Thompson detailed how understandings of working time moved from a task orientation in which work being organised according the task (when the field was ploughed, the working day was over) to a clock orientation in which work was organised according to the clock (the working day was over at a particular time). His account highlights how much of our current understanding of working time was born in capitalist industrial society. For example, he shows how working time was not as regularly patterned as it is now; bouts of intense work alternated with bouts of leisure. Starting and finishing times varied with the season and most trades honoured 'Saint Monday', the tradition of not working on Monday. This tradition, once vibrant, is now no longer remembered, the stuff of Monday morning dreams. For those with a task orientation to work there is less of a distinction between work and non-work spheres. For those bound by the clock a clear distinction is felt between 'their employer's time and their own time' (Thompson 1991: 358).
Time and the Post-Industrial Work Organisation

It should be noted that work technologies are not the only types of technologies which have been identified as causing changes in societies time-sense. Virilio, for example, focuses on the technologies of war\(^1\) (Virilio 2002); (Virilio 2001). However, work continues to play an important part in many people’s lives. Changes in the way in which work is structured, which impact on time, influence a major part of one’s temporal experience. In the following section I suggest that post-industrial work organisation carries with it a particular type of temporal organisation.

As we have seen time in industrial society became synonymous with the clock because clock-time fulfilled industries need for a regular labour force and synchronicity of production. Changes in work organisation may therefore lead to new constructions of time. In post-industrial society work organisation is characterised by the introduction of two types of flexibility; numerical and functional. The particular way in which time is implicated in both types of work organisation will be considered.

Now, many commentators assert, the industrial society which gave rise to rationalised, abstract and dominant clock time is now no longer with us (Pahl 1988); (Whitaker 1992); (Warhurst and Thompson 1998). In the 1970s and 1980s the world economy began to change significantly. Piore and Sabel describe an evolutionary process in which the mass production methods of the assembly line servicing a mass market came to be replaced first by neo-Fordist, and then flexible production methods linked to a heterogeneous market place of varied consumers (Piore and Sabel 1984). Fordist production, as Scott

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\(^1\) He describes three phases of warfare. The first was based on defence, the second on movement and the third (the present) on absolute speed. Changes in technology have resulted in the changes in the way wars are conducted, which has altered the architecture of cities and has impacted on the political structures of society.
and Cooke explain here, was characterised by a particular technology, a particular work organisation, particular institutional relationships and was located in specific geographical areas:

From about the 1920s to the end of the long post-war boom in the late 1960s, the core propulsive sectors of the capitalist economies of North America and Western Europe were to a significant extent constituted by Fordist mass-production industries, such as cars, machinery and domestic appliances. This type of production was based on assembly-line technologies, Taylorization of work routines and rigid labour relations consolidated by periodic agreements between management and unions that allowed labour a share of steadily increasing productivity gains. The whole system was sustained and regulated by an evolving web of Keynesian macroeconomic policies and rising expenditures on social welfare. The geographical foundations of this system coincided for the most part with the Manufacturing Belt in North America and with the great industrial region of Northwest Europe that stretches from the English Midlands through to Northern France, Belgium and Southern Holland to the Ruhr area of Germany with outliers in Northwest Italy and Southern Sweden (Scott and Cooke 1988: 241).

A new model has now been introduced. By contrast, flexible production methods marry information technology production processes with non-hierarchical forms of work organisation to produce constantly changing goods for a highly volatile market place. Atkinson’s ‘flexible firm’ model postulated the development of a two-tier workforce, a core of multi-skilled stable employees and periphery of low-skilled part-time or contracted labour (Atkinson 1984). While disputing the claim that flexible specialisation has become the dominant production system, many argue that flexible specialisation production methods operate in parallel with Fordist assembly line techniques, the former occupying the primary labour market, the latter the remit of the peripheral labour market ((Goldthorpe 1984); (Harrison and Bluestone 1988)). Others contend that
rather than representing a fundamental break, flexible specialisation represents 'an extension of Fordist structures' ((Amin and Robins 1990: 27); (Grint and Gill 1995); (Kumar 1984),(Pahl 1988)). Though there is debate over the nature and direction of the change, it is important to emphasise that there is general agreement that change has occurred. In the words of Pahl, 'we are living through a period of change that is qualitatively and quantitatively different from that typical of most of the twentieth century'; (Pahl 1988: 4). Whitaker similarly reminds us that 'to argue for the existence and significance of deep seated continuities with the past is not to deny that dramatic change has occurred' (Whitaker 1992: 2). Warhurst and Thompson also emphasise that change has occurred:

Powerful forces have been reshaping the world of work; notably intensified competition within a core global political economy, expanded technological and informatic resources, new managerial ideologies and practices, and the spread of market relations within the state sector and large private firms (Warhurst and Thompson 1998: 19).

Central to post industrial society is the re-organisation of work according to the principals of numerical or functional flexibility.

**Time and Numerical Flexibility**

Numerical flexibility refers to the ability of organisations to hire and fire freely as the market place demands and assumes that labour is relatively low skilled and easily available. Various types of numerical flexibility, categorised by different groups of workers, can be applied. The first peripheral group refers to workers who have full-time jobs but less security than the core workers. The second peripheral group work part-time, on short term or temporary contracts or on public training schemes. A third group are not employees of the parent firm, rather they are sub-contractors, the self-employed, agency temporaries, or
employees of an outsourcing firm. Of all these strategies, particularly in the US and the UK: 'the most radical shift has been either towards increased sub-contracting ... or towards temporary rather than part-time work' (Harvey 1989).

Warhurst and Thompson identify two further aspects of organisational change both of which relate to workers' subjectivity; one is the engagement of 'emotional labour', particularly in the service sector:

> the interactions between employees and customers are likely to be highly scripted but the former are increasingly exhorted, indeed trained, to manage and mobilise their feelings in pursuit of higher quality and increased productivity (Warhurst and Thompson 1998: 11).

The second aspect (of both numerical and functional flexibility) is the extension of 'normative controls' where behavioural characteristics such as the ability to work in a team and self motivate are developed. So for example, in a manner reminiscent of Big Brother, the business journal Flexible Working referred to the growth of cognitive flexibility asking; 'does the job require people with a particular sort of psychological contract? ... What sort of strategic and cognitive assumptions cannot be tolerated?' (Sparrow 1997).

Often implicit in much of these organisational strategies is a new organisation of working time. Noon and Blyton identify that shiftworking, compressed working week, annual hours contracts, closer matching of work schedules output demands, part-time schedules and flexitime are increasingly being introduced in the UK (Noon and Blyton 1997). In the UK there were four main ways in which numerical flexibility was implemented; through the use of temporary workers, part-time workers, overtime and shift-workers, and flexible working time.\(^2\)

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\(^2\) This is according to a survey of 64 companies produced by the National Economical Development Council in 1985 Evans, A. and J. Bell (1986).
In a study conducted by the Institute of Personnel Management, 92 organisations were surveyed on their organisational strategies. Again time was frequently cited as central to work reorganisation. Companies were looking at:

- ways to redistribute working time to provide a more cost effective match between the hours available and the pattern of demand
- measures to avoid the replacement of shorter basic hours by greater overtime working
- a more complex and flexible approach to working hours using computerised monitoring/clocking
- the possibility of more concentrated working hours as work becomes less physically arduous
- more flexibility about the use and timing of work.

[Evans, 1986 #216: 12]

If industrial time was based on a particular organisation of work, is the different sort of work organisation in post-industrial society resulting in a different type of time?

A number of questions are raised by these temporal re-organisations. One is that the nature of the labour contract may be changing. With the increased use of contract working we can see a move away from the traditional work time relationship in which an employer pays for labour-time, and is faced with the problem of maximising the amount of work done within that time. Instead, payment is linked to task completion. The faster the work is done, the more contracts an employee can obtain. The amount of time it takes to complete a task thus becomes the employee's, rather than the employer's, problem.

Another implication of these changes is that we may be witnessing a move away from working time standard (which would have most recently been seen in a 39 hour, 5 day week, with holidays and sick pay) and a fragmentation of working time (Alauf, Boulin et al. 1994). In UK manufacturing, there has been a 'greater de-coupling of individuals' work hours from operating

hours' (Noon and Blyton 1997: 67) as machines are run around the clock. What Noon and Blyton identify as new is the spread of shiftworking to areas where traditionally it has been rare. The growth in the service sector has also been accompanied by the extension of work into the night hours and weekends. The introduction of annualised hours (rather than overtime) and term-time working (in which a part-time worker works full days during the term time and does not work during school holidays) also contributes to the de-synchronisation of working times within a country. Noon and Blyton cite statistics that indicate that in Britain only around a third of employed men and women operate according to a traditional nine to five working pattern (1997: 69). The numbers for non-traditional work structures are not as high in Ireland; in 2001 7% of all workers worked overtime, 12% worked shift work, and 16.5% worked part-time\(^3\) (CSO 2001).

**Time, Functional Flexibility and Knowledge Workers**

While these temporal changes may be more characteristic of the numerical flexibility strategy, within functional flexibility new forms of work organisation are being introduced which also have important implications for our understanding of working time. Functional flexibility posits an end to the demarcation between jobs of old and the creation of a multi-skilled workforce capable of moving easily among the changing tasks in the workplace. The organisation demands ‘staff versatility, the integrated organisation of work, flexible working hours and performance related pay’ (Commission 1994). Here the assumption is that the workforce is highly skilled, and being of value to the organisation, experiences greater workplace stability than the previous group\(^4\). In the information or knowledge society

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\(^3\) These percentages add up to 35.5%, but there is likely to be some overlap between the groups, for example many people working in the retail sector would be working both part-time and on a shift system.

\(^4\) However, even core functions (such as accounting or marketing) can be subcontracted out if the possible cost of laying off core employees at times of...
Giddens argues 'our way of life, based on manufacture of material goods, centred on the power machine and the factory, is being replaced by one in which information is becoming the main basis of the productive process' (Giddens 1993: 665). Where information technology is the central tool to be manipulated in the workplace, work becomes centred around handling data rather than handling raw materials. Knowledge is of increased importance, as technology is not just a device, but the ability to understand how a mechanism works, the ability to repair and modify ((Volti 1992); (Perrow 1984)).

Part of the difference between these organisations and the organisations of numerical flexibility lies in the creation of a highly skilled or multi-skilled workforce, a workforce centred on the manipulation of knowledge and symbols rather than production of material goods. The changed nature of the work being done alters managerial relationships. Fordist systems were premised on the idea that the worker was an extension of the technology they used. Like the technology, they were required not to think. The technical labour at the heart of knowledge work, being often indeterminate in outcome, is not conducive to hierarchical management. Particularly unsuitable is a Taylorist form of management where conception of the process lies in the hand of management, while execution of the task is the only role of the employee. Mc Govern highlighted the difficulties faced when managing technical workers (McGovern 1996). Knowledge work is difficult to evaluate since the progression of the work process is indeterminate. The use of tacit and specialised knowledge makes it likely that managers are not in a position to assess whether the work rate is unreasonable, reasonable or difficulty is considered prohibitive so the temporal issue raised by contracting above may also be of relevance here.

excellent (Causer and Jones 1996). Technical labour is inherently uncertain and ambiguous, requiring an artful management of 'creative and rather intelligent and autonomous individuals' (Jain and Triandis 1990: xiv). Such that the creation of high trust systems replaces the 'low trust' of the assembly line ((Fox 1984); (Goldthorpe 1984)). Related to this is the increased emphasis on self-management of the work process aimed at harnessing workers' creativity and commitment. The use of work-groups to increase productivity among technical workers has also been documented ((Causer and Jones; 1996); (Lowe and Oliver 1991)). If it is not possible to measure productivity directly, how else can it be ensured that an employee, an expensive and highly valued employee, is maximising his or her labour power? Among technical workers, the concentration is on a participative system, described as 'responsible autonomy' by Edwards, involving team working and a culture of commitment to the company (Edwards ); (Lowe and Oliver 1991); (Causer and Jones 1996). These represent a different relationship between the worker and his or her work, his or her manager and his or her colleague. The most immediate outcome of this type of management is 'reciprocated trust relations and operational autonomy through which (employees) can determine the techniques and timing of much of their work' (Thompson and Warhurst 1999:12) (Hodson 1996).

The nature of the work therefore has implications for the management process and for the organisation of working time. Noon and Blyton predict that an increased use of team working will have implications for employees' time use at work, particularly as, in their words:

The circumstances under which team working has been adopted (often in contexts of job reductions, lower staffing levels and increased emphasis on
quality assurance, for example) means that, for many, team working is part of a significant change from what has gone before, not least in the additional responsibilities held by the team over such areas as quality and task allocation (1997: 74).

Thompson argued that a key component of temporal organisation in industrial societies was the creation of a time discipline, centred around the clock, which suited the needs of industrial production (1991). This time discipline became internalised such that it no longer became necessary to beat slovenly workers or close the factory gates as soon as the morning shift began, the imperative to be present came from within. In a post-industrial society is clock based time-discipline still relevant? Glennie and Thrift re-visit Thompson’s concept of time discipline, assessing how it applies in an economy based on flexible production. Principally they argue that time-discipline should be seen as a ‘multifaceted concept whose elements ought not to be conflated with each other’ (Glennie and Thrift 1996: 285). The elements that make up this concept are explained as follows:

By standardisation we mean the degree to which people’s time-space paths are disciplined to be the same as one another’s. By regularity we mean the degree to which people’s time-paths involve repetitive routine. By co-ordination we mean the degree to which people’s time-space paths are disciplined to smoothly connect with one another’s (1996: 285).

Hence, they argue that the production systems such as Fordism required all three elements in order to create a disciplinary force. In modern flexible production systems, standardisation and regularity are diminished while co-ordination assumes a greater importance. Glennie & Thrift’s concept of time-discipline facilitates understanding of the timing regimes in a variety of work situations, and moves analysis beyond the hours and minutes of the clock, towards consideration of rhythms and
sequences. It is suggested that time discipline may not depend on the clock. It is suggested therefore that particular aspects of 'knowledge' work, such as the nature of the work that is done and the type of management structures that are applied, alter the nature and organisation of working time.

**Irish Evidence**

What empirical evidence exists that supports claims that such methods of organising are being introduced and that they are accompanied by new arrangements of working time? Roche *et al* emphasise that the Irish experience is often cited as supporting such organisational changes:

Ireland is often now represented as a place where innovative approaches to work organisation, based on team work and flexible forms of work organisation, are common; where various forms of direct employee involvement are extensive, and where 'partnership' arrangements between management and unions at workplace and enterprise levels are becoming more common and face a generally positive climate ((Roche and Geary 1998: 1)

In a study of Irish workplaces they looked at the reality behind that claim. They first found that Ireland had indeed adopted a high level of participative organisational forms. Team working, for example, was found in 57% of all workplaces. This figure broke down into three main categories: 36% of firms used short-term or temporary groups, such as project groups, while 28% of firms used permanent groups, such as quality circles. These figures compare favourably with a ten-country European average of 31% for the first category and 30% for the second. The third category of participative structure was 'delegate participation organised around team structures'. This organisational form was found in 42% of workplaces, coming third behind Sweden (56%) and the Netherlands (48%), the ten-country European average being 31%. Roche further notes that 'where participation is
practised in Ireland ... well over half and in some cases nearly two-thirds of enterprises involve more than half of the occupational group' (1998: 10). He sounds a cautious note in highlighting that in four fifths of the workplaces such organisational features have only been introduced within the last 3 years. In order to assess the practice behind these figures, they look at four levels of autonomy permitted to team members: the organisation of work, quality management and continuous improvement, management of attendance and working time, control of team boundaries and team composition. In almost all headings, they found that less than half of the workplaces allowed local autonomy. Surprisingly the exception to this was in the organisation of working time which they argue represents:

a critical litmus test of the level of autonomy management has been prepared to permit to employees. Where management are prepared to grant employees a say in defining and policing acceptable standards and attendance this might be reasonably taken as a significant departure from traditional practice. Interestingly, in over half of the companies, team members controlled the management of time keeping. Control of attendance rested with employees in about a third of workplaces. (1998: 11)

They conclude:

It would seem ... that ‘the new workplace order’ contains many elements, some of which a priori might not have been expected, especially in regard to matters of attendance and time keeping. Yet alongside this management would seem to exercise more control in other areas like work organisation where it might not have been anticipated. It is not the case then, that anything like full autonomy is being granted or ceded to employees (1998: 12).

It is with regard to time, more than any other aspect of the work organisation, that management seem willing to allow a certain level of autonomy. This indicates that the one area in which autonomy is present is in autonomy of time.
This is not to claim that the type of work organisation found here represents the workplace of the future, the prototype that all will soon follow or is emblematic of all types of work organisations. As various combinations of the flexibility strategies described above can be applied, very different conditions of work can exist, even within the same sector or work organisation. I agree with Warhurst and Thompson when they say:

There is, however, no single or simple future work/place. Variation by firm, sector or country co-exists with the powerful structural tendencies to standardise through business-defined ‘best practice’, as workplace actors struggle to adapt to the constraints and opportunities of their own environments (Warhurst and Thompson 1998: 19).

**The Software Industry**

However if we are to ascertain whether working time is changing, we need to examine the one place where this change should be evident. The site for this study is the Irish software sector. The software sector encompasses all of the characteristics outlined above. In addition it is at the forefront of technological advances, advances which as we saw in the first paragraphs of this chapter have been implicated in changing the nature of working time. The software sector is a relatively recent addition to the world of work, its traditions do not stretch back to the industrial revolution. Beirne *et al* outline features of the software sector which make it of particular interest:

Firstly, it is an expanding and increasingly important field of employment, in an era when other jobs are vanishing. Hence, the nature of the labour processes in computing are likely to assume increasing significance in the future. Secondly, as an occupational category it has emerged largely since the 1960s, and so does not carry the baggage of a long history of skill definition, status or gender
stereotyping ... Thirdly as already noted, the 'output' of this labour process has direct and potent implications for the future of work more generally (Beirne, Ramsay et al. 1998: 142).

Its newness as an industry and as an occupation (particularly so in Ireland) make it the perfect location in which to look for new organisations of working time. Indeed in the literature it is suggested that a particular time of working time culture exists within the sector. No account of software programming fails to mention the time intensive nature of the work: Talk to virtually anyone in Silicon Valley and you hear about the long hours' (Larson and Rogers 1986: 137). There are certainly technological pressures for a longer working day. As we have seen it is argued that that information technology collapses space and stretches time, by which is meant it increases the speed at which data flows between distant regions, so that geography no longer becomes a barrier to communication. While at the same time, it is suggested that the 24 hour day can become a reality as it is possible for that communication to continue whether it be day in Dublin or night in Silicon Valley. Finally, the rate at which IT develops, increases the speed at which products leave and enter the marketplace, narrowing the time available between deadlines. However, it is not technology alone which is implicated in creating long working hours. It is suggested that it is the working culture of these organisations which are stretching the working day:

'It's a culture of work' Cole (first female vice president of Microsoft) recalled 'Bill would hate it when the weather got good in Seattle. People would leave early. They weren't going to put in their twelve hours that day or sixteen hours that day' (Manes and Andrews 1993: 298)

"Ida said it very succinctly at the last meeting: Management cannot force you to work long hours, only YOU can do that". Charles Simonyi wrote in an April 1985 e-mail. "So why do otherwise intelligent people CHOOSE to come here at night and during the
weekend? Personal convenience, for one thing (if you happened to be an night owl): the bonus, for another. "We do reward outstanding contributions with a bonus. The most straightforward way to make an outstanding contribution is by working longer" (Manes and Andrews 1993: 299).

They don't want us to know how many hours we work. If we did ... they'd have to pay us a lot more ... but... I don't work for money' (Kidder 1981)

More recent accounts continue to refer to time pressures. In a study of a software house in Scotland, Beirne et al similarly note a requirement to work unpaid overtime (1998), in addition:

It was common for all categories to be working long hours, regularly into the evenings and weekends to complete projects, and without additional compensation by way of financial inducements or time in lieu. Working longer and harder was seen as a consequence of the times, of coping with available budgets and demands while counteracting an historical image of poor productivity and software quality. We found a general experience of intensifying pressures on software developers, with time spent on tasks being logged in increasing detail (Beirne, Ramsay et al. 1998:154).

Among knowledge worker it is suggested that a new time contract is developing (Shih 2002). The logic of this is that: 'the time a worker works in of itself, has to count as much as the results accomplished within that time. Time is a symbol of commitment' (Hochschild, 1997: 69).

The origins of software development are in the electronic industry that grew up in Silicon Valley. In a twenty five year period, starting in 1955, the industry grew to employ over 150,000. Silicon Valley, a thirty-mile strip of land, lies close to Stanford University, and the ties between the university and the industry it fostered are close. The university and military funding provided the research and development necessary to initially innovate (Larson and Rogers 1986). The valley is often sited as an example of an 'industrial district', a network of firms
and units interacting together. This ‘clustering’ of units is held to have replaced the large industrial firms of the past (Piore and Sabel 1984). The employment relationship within these industries has also changed, outsourcing of even core tasks leads to contractors and employees working side by side often on the same project. The level of outsourcing is growing both in the US and the UK. Beirne et al, reported that it was estimated that up to 80% of the top 400 UK firms would be buying in some or all of their IT services by the year 2,000 (Beirne, Ramsay et al. 1998: 150).

Within the software sector we also find increased levels of working autonomy, though the autonomy of software developers is often exaggerated. In contrast to other occupations such as doctors or lawyers, computer engineers experience low levels of professional autonomy: the boundaries of their profession are not protected by occupational groups nor the need to be in receipt of professional qualifications (Agre, Schuler et al. 1997). A number of features therefore make the software sector of particular interest: it is a new form of work organisation, it has a reputation for being time-intensive, it adopts participative form of work organisation (though the levels of autonomy and the nature of teams may vary) and it produces goods for an extremely competitive world market. It is here that one would expect to find evidences of the working time changes outlined in the first paragraphs of this chapter.

2. STRUCTURE OF THESIS

Thus far we have seen that post-industrial society has been accompanied by a new form of temporal organisation. Though the literature suggest links between organisational flexibility and working time, no studies directly address the temporal frameworks within which time is experienced and constructed at work. It is beyond the remit of this thesis to capture all the varieties of temporal forms which exist in today’s work.
organisations. Instead the thesis concentrates on one specific form of organisation in which it is expected that (for reasons outlined above) new forms of working time will be found. In order to picture the nature of working time it is necessary to address both its qualitative and quantitative components. We must move beyond the shadow of clock time (Adam, 1995) but we must also evaluate the importance of the clock in regulating temporal orientations. To assess how changes in the economy affect the way we perceive time at work and out of work, we need to look at how the new workplace is organised, both in theory and in practice. We need accounts of how time is experienced and perceived. We need to look at the routines and rhythms of work, how time choices are made and how priorities are applied. The interplay between different temporal logics must be examined.

Four key areas have been identified which directly address these aspects of working time. Many accounts of working time are principally concerned with changes in the number of hours worked. These issues are examined in chapter four, in which I look at the duration of the working day. In chapter five, I examine how time is experienced within work. I focus on the relationship between the type of work that is done and the organisation of working time. The particular way in which post-industrial technology can alter working time is considered here. Public policy is increasingly focusing on Work/Life balance⁵. Chapter six examines the boundaries between work and non-work in order to uncover the relationship between work time and non-work time. Finally in chapter seven I discuss what the effect of ‘no-long term’ is on one’s working life. Each of these issues will be briefly discussed and their importance in understanding working time outlined.

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⁵ See for example The Family Friendly web-page, maintained by the partnership body the National Framework Committee on Family Friendly Policies (http://www.familyfriendly.ie/usefullinkspage.shtml)
Duration of Work

Gershuny notes that 'we simply do not know, from official sources, how much paid work is done in most societies' (2000: 105). The International Labour Organisation produces one data series on working time, however the different data sources from which it is compiled makes comparison difficult. The Multinational Longitudinal Time-Use Study (MTUS) is the only alternative large scale multinational temporal data set. Unfortunately Ireland is not included in this data set. In this section, data is drawn from both sources.

On the length of the working day, a number of general points are worth making. Firstly, with the industrial revolution the length of the working day increased. Since then, at various periods of time, following trade union and political pressures, there have been reductions in hours worked. Secondly there have been two major periods of widespread working time reduction. The first, centring around the introduction of the eight hour day, lasted from 1913 - 1929 (extending into the 1930's in Italy and France). The second lasted from 1960 to the mid or late 1970s (Therborn 1995). Since the 1980's in the EU, trade unions' arguments have focused on the reduction in working time as a defensive alternative to redundancies or as a method of reducing unemployment. These arguments have been counterpoised by industries' demand for more flexibility (Bosch, Dawkins et al. 1994). The European Foundation for the Improvement of Living and Working Conditions believes that there is an inevitable movement towards the shortening of the working day:

... at a fundamental level, most of the parties involved in this study undoubtedly share the conviction that shorter working hours are not a passing fancy (even though their place on a country's economic and social agenda plainly fluctuates) but rather a powerful force in our societies, transcending specific periods (the long time series produced by people like Angus Madison for the OECD leave no doubt about that), for it is very true that the endless pursuit of technical
progress is not only reflected in increased consumption but also in the shifting balance between the goals of income and leisure maximisation in favour of the latter (Taddei 1998: 11).

In 1985 the Institute of Personnel Management in the UK concluded that: 'It is unlikely that we will see an increase in basic working hours. A hundred years of steady reduction does not suggest that such a change is on the cards' (Noon and Blyton 1997: 187). In most European countries, either strikes or state intervention led to agreed working hours that vary from 35 to 39 hours.

National reductions in working hours that have been obtained can reflect very different structures of working time. In some instances reductions reflect the higher proportion of part-time workers in the economy. In most industrialised countries part-time work is increasing, due in part to the rising participation of women in the labour force. However the ILO note that in countries with a high traditional participation of women, such as Sweden and Norway, the levels of part-time workers have either stagnated (in Sweden) or declined (in Norway). They conclude therefore that working time reduction due to increased participation of women in the labour force may not continue if the participation rates of women workers become stabilised (Bosch et al 1994). Working time reductions have also been obtained through a reduction in agreed weekly or yearly hours or through the reduction of lifetime hours (as more time is spent in

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6 There are no agreed working hours in Ireland. Irish working hours legislation is described in chapter four. It should be noted that levels of unpaid overtime worked are often absent from official statistics, so estimates of actual hours worked may be incorrect. The length of the working day which is actually worked can be different from the length of the working day which is supposed to be worked. In the UK and in Italy, use of overtime lead to an increase in actual hours worked. The overall trend towards reduction can therefore mask the development of an extension of working hours in some countries and for some workers within different countries (Bosch et al 1994: 19). The advantage of the MTUS survey data cited by Gershuny over official statistics is that he is referring to actual working hours rather than agreed working hours and so is better able to capture changes in working time Gershuny, J. (2000). Changing Times. Work and Leisure in Post-Industrial Society. Oxford, UK, Oxford University Press
education or through the introduction of early retirement). Some reduction in working hours may be accounted for by structural changes, for example a rise in unemployment levels may reduce the overall time worked in an economy (rather than the time worked by individuals). However, adjusting for such structural differences, Gershuny argues that decline and convergence is evident across nations from 1960 to 1990. Citing survey data on the length of the working day from twenty different countries Gershuny argues, there have been three convergences in time use patterns: by nation, by gender and by social stratification (Gershuny 2000). The balance between paid and unpaid work is similar across nations, with a general decrease in paid work and increase in leisure time in all but a few of the richer countries7. Citing data from nine8 different economies, Gershuny argues that from the 1960s normal working hours, with the exception of the US which remained constant, declined. In the 1980s hours increased in Canada and UK but continued to decline in the remaining seven. Once the data was adjusted to account for the increased participation rate of women, only the UK reversed the general trend towards a decline (Gershuny 2000: 64 Figure 3.4) However the ILO note that ‘very different structures may be hidden behind equal averages of duration’. Variation can be within countries. The differences in paid hours worked can vary according to the sectors, the size of the firm and the skill and status level of the worker. In the USA and Japan, greater heterogeneity of working time is experienced as working time is

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7 In terms of gender the trend is for the time patterns of men and women to converge. Although women spend more time working in the home than men, and men spend more time in paid employment than women, women are increasing the amount of time in paid employment. In contrast, men are decreasing their amount of time in paid employment and increasing their unpaid work time. Thus the two time use patterns are becoming more similar. In terms of status groups, those of higher status previously had more leisure than those of lower status groups. This gradient has now being reversed, hence descriptions of higher status groups as ‘cash rich, time poor’.Ibid.

8 The countries are USA, Canada, Netherlands, Norway, Denmark, Hungary, Germany, Spain and France.
set at the level of the enterprise rather than centrally through collective bargaining or state intervention (Gershuny 2000). In the concluding section of this chapter we will see that working time in Ireland is relatively un-regulated. Hence working time here is particularly susceptible to types of technological and economic pressures which, as described earlier, have been implicated in increasing the length of the working day. The key question here is does the increased temporal autonomy which exists within this sector influence the duration of the working day? Does the sector buck national and international trends in working time reduction and conform to its time-greedy image? What are the forces which influence the length of the working day?

**Time within work**

The second question which will help us understand the effect of post-industrial work on time is how is time constructed and experienced within work? Here we are concerned with how is our work time *utilised*? How do we spend our time at work? What are the rhythms, routines and schedules of work? In Adam’s frames of reference, what is the tempo of work time? (Adams 1994). Hochschild uses the metaphor of house building to highlight how time structures our relationships:

People are not time-capitalists, but time-architects who structure time to protect their relationships. Looked at this way, a few Amerco families were still managing to build large time-houses, but many others were living in increasingly cramped time-quarters – and some were temporarily homeless. Some time-shelters seemed solid and permanent – for instance, one family’s inviolable Saturday breakfast; but too many others were like collapsible nomad’s tents, pushed from one day to the next, from one week to the next. If many working parents wanted more time at home, most also yearned to approach time as home builders, even as they dealt with it as portfolio managers. Some were beginning to sense that they had invested in the wrong ‘stock’; others
were feeling the strain of applying a time manager's perspective to those unbillable hours at home (Hochschild 1997: 52).

In workplaces, time structures are also built; structures that enable employees to complete tasks, attend meetings and organise their working day. It would seem that in the participative workforce, unlike the Fordist workforce, these are built by the employees themselves. There have been few studies of how, within a working day, time is organised and spent in the flexible workplace. For the Fordist workplace we have Roy's (1960) ethnographic study of assembly line work. Here the day was broken up by the use of informal breaks, centred around fruit:

It was Sammy who provided the peaches; he drew them from his lunch box after making the announcement 'Peach time!'. On this first occasion I refused the proffered fruit, but thereafter regularly consumed my half peach. Sammy would continue to provide the peach and make the 'Peach-time' announcement, although there were days when Ike would remind him that it was peach time, urging him to hurry up with the mid-morning snack (Roy 1960: 161).

Peach time was followed an hour later by banana time, window time, pick-up time, fish time and coke time, each break facilitating conversation and interest. The time of work here is regular, uniform and dull. Hence it is within the holes of work time that the employees temporal creativity is evident. It is here that the 'other times' within clock times are found. As Adam explains:

The existence of clock time, no matter how dominant, does not obliterate the rich sources of local, idiosyncratic and context dependent time awareness which are rooted in the social and organic rhythm of everyday life (Adam 1994: 21).
Marx examined the 'pores of the working day' in order to examine the relationship between the length of the working day and its intensity. As the day shortened, its intensity increased (Marx 1867). While Hochschild does not address this directly, she does seem to implicitly support the contention that in the modern workforce where the working day lengthens it becomes porous, arguing that it is the relative lack of intensity of working time which makes it more preferable than time constrained 'home time' time (Hochschild 1997). She examined employees in a US company which was attempting (with limited success) to implement family friendly policies. Employees reported finding it difficult to combine their home and family life, yet did not take steps to reduce their working hours. She found that in the workplace, managers -with no other means of establishing productivity - relied on hours put in at the job as a measure of how good a worker is. She however moved her analysis beyond the workplace, arguing that the lack of time available for home life, meant that this time had to be carefully planned and allocated. That is, home time became rationalised, much as work time was rationalised under Taylorist management. Making time for children's needs became a management problem, a problem with no easy solution and so home time became a source of stress. In contrast, she argues, at work the pace is less structured and more porous. Counter-intuitively, at work there is time to chat with friends and linger while at home the rush is on. Her conclusion is that people spend more time at work, in part, because they would rather be there then at home. At work they are valued, encouraged and rewarded, while at home they are criticised by their unsatisfied spouses and children (Hochschild 1997). She focuses more on the home than on the workplace, so while she documents the pressures being felt at home, it is not clear that similar pressures are not being felt at work. It is implied that work time is more fluid and less
structured than home time, though how work time is experienced is not documented.
The concept of porosity itself also contains within it an implication that there are clearly understood boundaries between when one is working and one is not. Yet within knowledge industries (where the work itself is considered to be highly intrinsically satisfying and where greater control of working time lies with the employees) the difference between work and non-work, within work, may begin to blur. Some of the business literature tends to see porous time as being in itself productive:

Gazing out of an office window can be a very useful activity, as can sitting back in a chair, feet up, allowing one's mind to drift over a problem or issue, gently searching for an appropriate solution. Likewise, the hourly trips to the coffee machine to get away from the oppressive pile of work sitting on one's desk allows the thoughts in one's mind to settle and be prioritised (Collins 1996).

It is also within the workplace that we can identify whether aspects of post-industrial society, such as its global nature and the speed of technology, are creating new types of working time. Therefore in order to produce an account of working time in these types of post-industrial workplaces it is necessary to look at the qualitative aspect of time within work and at the nature of work time and non-work time within work. After all, as we have seen, time self-management is increasingly being prioritised, yet there is an assumption that the only time to be managed is the regular, quantifiable time of the clock. If the 'other' times of the work process are invisible, temporal management will be a difficult task. It is of therefore important to produce an account of working time which includes the variety of types of time which interact within the work process.
Boundaries

The third question which enables us to understand the nature of post-industrial time is what is the nature of the boundaries between work time and non-work time? Hassard argues that in advanced societies which suffer from temporal scarcity, time is often experienced as a boundary condition (1991). As we have seen, with industrialisation came the commodification of work time. Adam highlights that commodified time has a double existence. On one hand it is a commodity, a resource, an abstract quantity. On the other it is a lived experience, a boundary on our lives (Adam 2001). Central to the experience of time in work is the experience of temporal boundaries. In industrial society the timing of work and non-work is often contested (Thompson 1991). While looking at variations in the length of the working day can tell us how these contests are resolved, focusing on the boundaries of the work process themselves highlights the specific ways in which these disputes are played out. It will also allow us to access whether the time of work is allied to the time of the clock and whether the time of work dominates over all other types of time.

In the previous section it was suggested that the nature of intellectual labour may be changing the experience of work within work. A changing conception of the work process itself would also have implications for the relationship between work time and non-work time. Again, a focus on boundaries brings these relationships to the fore.

A life of work

With the final question the temporal focus is expanded, such that the time in consideration here is the time of one's working life. Here we address whether work in these industries is centred on the 'short-term', and if so what are the implications of this? Sennett has argued that post-industrial society is characterised
by an end of the 'long term' (Sennett 1998). Earlier we have seen how longer times spend in education and earlier retirement age has led to a shortening of working lives. In addition Sennett identifies a number of features of the new economy (such as the end of a job for life, team-working, deskilling and the downgrading of experience) which combine to produce a society in which social relationships are significantly weakened. He argues that:

'No long term' is a principle which corrodes trust, loyalty and mutual commitment ... social bonds take times to develop, slowly rooting into the cracks and crevices of institutions' (Sennett 1998: 24).

Sennett has expressed concern that mobility undermines the creation of a strong personal narrative. This narrative is the essential precursor to a 'character' which can withstand and challenge the detrimental aspects of work organisation in a capitalist society. A focus on how job mobility is experienced in practice allows us to ask whether in it we can see evidence of a post-Fordist time discipline; a time discipline that internalises acceptance of the short-term and to assess the validity of Sennett's concerns.

This chapter examined the links between the organisation of work and our experience of working time. The clock is more than a technology for measuring time; under industrial capitalism it has also become the central way by with we come to conceptualise time. It provides the temporal framework around which society revolves. Although the first mechanical clocks were invented in Western Europe in 1300 (Landes 1983), they only reached hegemonic importance when applied to the demands of factory organisation. In this chapter post-industrial forms of work organisation were described. Questions were raised as to the implications that these might have for the organisation of time within work. Key aspects of working time
were identified; the duration of the working day, the nature of
time within work, the boundaries between work and non-work
and the role of work in the narrative of one’s life.
This chapter outlined the aspects of the knowledge workplace
which, when examined, help us develop a fuller understanding
of the nature and organisation of time within these workplaces.
Before these issues are returned to in chapters four, five, six and
seven, I examine the specific context within which the study was
conducted. In chapter two, therefore, I highlight ways in which
the Irish experience is similar and dissimilar to that in other
countries. In chapter three I outline the methodological
approach and tools used in this thesis.
The important influence of the economic climate, the regulatory framework and the industrial relations system on working time arrangements has been highlighted by Bosch et al (1994). In this section I outline the context in which this study was conducted. The participants in this study were working in a sector that was experiencing unparalleled growth within a legal framework in which working time was minimally regulated. The IT sector is one in which unions are rarely present and industrial relations are characterised by union avoidance. I also highlight the particular features of the Irish economy that make its software sector a suitable site for enquiry.

The chapter is structured in six parts, each dealing with a particular aspect of the software sector in Ireland. In the first the growth in the sector is described. The skills shortages which accompanied this growth conferred considerable power over the participants, allowing them greater freedom to determine their working conditions and to seek new employment if they so wished. The culture of the software sector is highlighted in the second section. The software sector in particular is often described as one in which there is a highly committed working culture in which high temporal demands are made. The Irish sector is similar to those in other countries in that it is male dominated and young. It has been suggested that these factors contribute to the creation of a culture which is often described as 'collegial' (Causer and Jones 1996); (Wright 1995). The skill level of the sector is important and is considered in section three. As we have seen in chapter one, the nature of the work done has implications for the type of management that is applied and this impacts on levels of temporal autonomy found in the sector. Many theorists have argued that globalisation processes are causing changes in society's time-sense. In section four I
consider the global nature of the Irish software sector, highlighting its suitability for assessing the impact of globalisation on working time organisation. In section five, the industrial regime operating in the sector is considered. In some sectors, unions have an important role influencing working time regulation. In this section I highlight that this is not the case in Ireland. Finally in section six I examine the legal frameworks regulating working time. In some countries, such as France, legislation has an important impact on working time organisation. In this section, I highlight that this is not the case in Ireland.

1. GROWTH
Throughout the 1990s the key story of the software industry in Ireland was one of growth; growth in revenue, employment figures and in the number of companies. The revenue produced by the sector grew from 2,189 million euro in 1991 to 10,150 million euro in the year 2000⁹. In 2000 just under 10% of Irish GDP originated in this sector¹⁰. Table 2.1 outlines the growth in revenue in this decade.

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-1993</td>
<td>15%</td>
</tr>
<tr>
<td>1993-1995</td>
<td>50%</td>
</tr>
<tr>
<td>1995-1997</td>
<td>49%</td>
</tr>
<tr>
<td>1997-1998</td>
<td>16%</td>
</tr>
<tr>
<td>1998-1999</td>
<td>15%</td>
</tr>
<tr>
<td>1999-2000</td>
<td>33%</td>
</tr>
</tbody>
</table>

Table 2.1: Growth in Revenue in the Irish Software Industry 1991-2000

⁹ Data from the National Informatics Directorate, previously known as the National Software Directorate. This is a subsection within Enterprise Ireland, an Irish governmental organisation. Data can be found on the following webpage: http://www.nsd.ie/htm/ssii/stat.htm
¹⁰ GDP in 2000 was €102,845 million (http://www.cso.ie/principalstats/pristat5.html)
The number of software firms in the country also increased during this period. Over 50% of the software firms in Ireland were established in the 1990s. The number of firms rose from 291 in 1991 to 690 in 1999 (NSD 2000).

Table 2.2 outlines that throughout the decade, employment growth rates in the software sector were consistently above 15%, for some years rising as far as 54%. Employment in this sector grew faster than all other manufacturing sectors (Consulting 1998: 12) and faster than the overall annualised growth rate in total employment in the Irish economy (which was 6%). (Arora, Gambardella et al. 2001: 5). At the start of the 1990s the sector employed just under 8,000 people (Crone 2002: 2). By 1999 this number had risen to 30,000, making it one of the largest contributors to total employment growth in Ireland in the 1990s (Crone, 2002)\(^\text{11}\). However it must be noted that the software sector has never employed more than 2% of the total labour force - thus while it is economically important in terms of revenue created, in terms of employment it remains a small subsection of the total labour force in Ireland (Ihle, Butler et al. 2002).

Table 2.2: Growth in Employment in the Irish Software Industry 1991-2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-1993</td>
<td>15%</td>
</tr>
<tr>
<td>1993-1995</td>
<td>32%</td>
</tr>
<tr>
<td>1995-1997</td>
<td>54%</td>
</tr>
<tr>
<td>1997-1998</td>
<td>19%</td>
</tr>
<tr>
<td>1998-1999</td>
<td>15%</td>
</tr>
<tr>
<td>1999-2000</td>
<td>21%</td>
</tr>
</tbody>
</table>

This growth is of relevance as the resulting skill shortages conferred considerable labour market strength on employees with the sector. Anecdotal reports indicate that there was a high rate of job mobility, which was often accompanied by wage increases. The CSO produces data on wage levels for those working in the Distribution & Business Services sector, amalgamating the data for those in computer and related activities (Nace 72) and Research and Development (Nace 73). Wage levels for this group are larger than other sub-sectors within Distribution & Business Services sector 13, with the exception of Post & Telecommunications14. Table 2.3 below shows that wage levels have increased for those working in


However this explanation would not seem to hold true as in some instances the CSO data is higher than that produced by the NSD. For example in 1999 the CSO estimates that 27,600 are employed in Nace 72 while the National Software Directorate puts the figure for those working in the Software Sector at 24,891. Another factor in explaining the discrepancy would be that NACE 72 contains a number of activities related to hardware within its classification (eg hardware consultancy, maintenance and repair of computing machinery) and these are probably not included in the NSD data.

13 For example, in 1999 average weekly earnings for the other sub-sectors were: Motor Trade €391.32, Wholesale Trade €489.61, Retail Trade €427.89, Accommodation & Catering €303.81, Land Transport €464.44, Other Transport €508.85, Post & Telecommunications €646.53, Real Estate, Rending of Machinery €451.56 and Other Business Activity € 491.64

14 Data available on CSO web-site. www.cso.ie
computer and related activities (Nace 72) and Research and Development (Nace 73).

**Table 2.3: Average Weekly Earnings for Computing Activity and R&D**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Weekly Earnings €</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>563.61</td>
</tr>
<tr>
<td>2000</td>
<td>613.93</td>
</tr>
<tr>
<td>2001</td>
<td>642.63</td>
</tr>
</tbody>
</table>

Source: [CSO 2002]

Friedman and Cornford indicate that the rapid pace of change in the Information Technology sector has prevented deskilling, but has also introduced insecurity, as the industry fragments into specialities and sub-specialities (Friedman and Cornford 1989). Engineers attempt to predict the way in which the industry is about to develop (Agre, Schuler et al. 1997) and seek to ensure that their skills match the new job market requirement, often moving to gain new experience. However it is less likely that in the Irish software sector employees experienced such insecurity. On the contrary employers, in times of skill shortages, seek to hold on to experienced programmers. Indeed very few in the sector are self-employed, just over 90% (95 % women and 88.4 % men) are employees (QNHS special extraction, 2000 q1). This very much alters the dynamic within which working time is structured.

2. CULTURE

Earlier the link between the universities and the development of the information technology industry in Silicon Valley was described. This link has been reflected in the culture and organisation of computer work, such that it is often described as having a 'collegial culture' (Causer and Jones 1996). How can this culture be characterised? Kidder, following observation studies, describes the culture of one particular computer company, highlighting its male-dominated, adolescent nature
(such that the female secretary said she felt that they saw her as a mother substitute, while another was subjected to harassment). The game playing and tricks they played on each other, the informal style of the team leaders and the bonding together as a team (right down to giving individual groups particular names) are outlined. The creation of a team identity, and the destruction of that identity and the unhappiness it caused are described. Metaphors of war, aggression and ownership are used throughout, indicating how the culture of computing is wedded to the culture of business (Kidder 1981). The industry is seen as being male dominated, young and highly skilled. The Irish pattern reflects this experience.

**Gender**

There is strong occupational segregation in the Irish economy, with almost two thirds of women workers engaged in clerical and office jobs, sales, health, personal services and teaching. With the employment growth experienced during the Celtic Tiger boom came the increased participation of women in the labour force. In 1991 the ratio of men to women in the labour force was 2 to 1. By 1996 this had fallen to around 1.5 to 1 (Hughes 2002). In computer software applications the number of women increased by 15% from 6207 in 1991 to 7172 in 1996. In contrast, men’s employment increased by 60% in the same time period. Of all the occupations held by women in Ireland, in 1996 1.3% were held by women working in computer software occupations. By 2001 this number had risen slightly to 1.7%. In terms of numbers working in software occupations, there was a decrease from 1996 to 2001 as the percentage of women in these occupations dropped from 36.2 % to 32.2% (Hughes, 2002). Female employees are therefore very much in the minority in the software sector in Ireland.
Age

The data presented here is from the Quarterly National Household Survey (QNHS) produced by the Central Statistics Office in Ireland\textsuperscript{15} and is for Nace 72 ‘computer services’ which includes software production. This sector is one in which the age profile of the employees is heavily skewed to those under 35. Table 2.4 below shows that in 2000 almost 75% of the employees were under 35.

<table>
<thead>
<tr>
<th>Age Bands</th>
<th>Estimated % employed 2001 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>1.7</td>
</tr>
<tr>
<td>20-24</td>
<td>24.3</td>
</tr>
<tr>
<td>25-34</td>
<td>48.3</td>
</tr>
<tr>
<td>35-44</td>
<td>18.3</td>
</tr>
<tr>
<td>45-54</td>
<td>5.7</td>
</tr>
<tr>
<td>55-59</td>
<td>1.3</td>
</tr>
<tr>
<td>60-64</td>
<td>*</td>
</tr>
<tr>
<td>Total</td>
<td>99.6</td>
</tr>
</tbody>
</table>

* sample size too small for extraction

Source: QNHS special extraction

3. SKILL

Earlier we have seen that the knowledge economy is characterised by highly skilled, highly educated employees whose work is centred around the manipulation of information. In short, it is ‘white collar’ rather than ‘blue collar’ work. In this following section I outline the types of operations undertaken within the sector and assess the skill levels of the occupations operating within the sector in Ireland. In the Table 2.5 it can be seen that the software sector is dominated by white collar occupations; managers make up 18.7% of the workforce, professionals 20.3% and associated professionals and technical

\textsuperscript{15} Information on the QNHS and some of the data maybe accessed on their web-page \url{www.cso.ie}. Some of the data reported here was obtained as part of a special extraction from the CSO.
Staff 34.3%. These three groups combined account for just under 75% of the workforce.

Table 2.5: Occupational Structure of Software Employment, 1999-2000 (%)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>18.7</td>
</tr>
<tr>
<td>Professionals</td>
<td>20.3</td>
</tr>
<tr>
<td>Ass prof &amp; tech</td>
<td>34.3</td>
</tr>
<tr>
<td>Clerical &amp; sec</td>
<td>8.0</td>
</tr>
<tr>
<td>Craft &amp; related</td>
<td>7.3</td>
</tr>
<tr>
<td>Service</td>
<td>0.3</td>
</tr>
<tr>
<td>Sales</td>
<td>4.0</td>
</tr>
<tr>
<td>Operatives</td>
<td>6.7</td>
</tr>
<tr>
<td>Other</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.7</td>
</tr>
<tr>
<td>Total (000s)</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Source CSO: QNHS, special tabulation for Nace 72. ‘Results are subject to sampling variation. Particular care should be taken in respect of estimates of small value’. (Wickham & Boucher, unpublished)

Much of the revenue for foreign companies is accounted for by the use of Ireland as a base for European exports by large US multinationals (Microsoft, Lotus, Oracle, Symantec, Novell and Claris). The majority of the R&D and marketing for these applications is conducted in the US while the Irish units are responsible for low value added operations such as localization, disc duplication and packaging (O’Gorman and O’Malley 2001). The skill level in this segment of the software economy would therefore seem to be relatively low. However, Wickham argues that the small number of operatives within this Nace Category (Table 2.5 above) indicates that employment levels are not dominated by low skilled occupations associated with disc duplication and packaging (Wickham and Boucher forthcoming).

It is difficult to assess the actual skill levels of the work being done in the sector, however what can be stated is that the workforce is highly educated. Table 2.6 shows the highest level of education attended for those working in Nace 72. In 2001, almost 70% of the workforce had a third level qualification.
Table 2.6: Persons aged 15-64 years in employment (ILO) for Nace 72 classified by highest level of education attained. 2001, Q2

<table>
<thead>
<tr>
<th>All persons (thousands)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary or below</td>
<td>0.4</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>1.0</td>
</tr>
<tr>
<td>Upper Secondary</td>
<td>5.1</td>
</tr>
<tr>
<td>Post Leaving Cert</td>
<td>2.2</td>
</tr>
<tr>
<td>Third Level</td>
<td>21.7</td>
</tr>
<tr>
<td>Other/not stated</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>31.5</td>
</tr>
</tbody>
</table>

Source: QNHS special extraction

The labour force of the software sector in Ireland would therefore seem to be similar to its counterpart in other countries; it is male, young and highly educated. In addition, in Ireland almost two thirds (65%) are single and just under a third (31.7%) are married (QNHS, special extraction). These factors influence the culture of the companies which make up the sector.

4. GLOBALISATION

In the descriptions of post-industrial time provided by Giddens, Castells, Havey and Urry in the previous chapter, globalisation is identified as a key force influencing our understandings of time (Giddens 1984); (Castells 2001); (Harvey 1989); (Urry 2000)). Decision making takes place in shorter and shorter timescales, in the financial markets stock rises and falls within minutes (Urry 2000). Company teams can often be spread across continents, yet can meet daily through teleconferencing. Long distance travel is an increasing part of the work process, and with this come altered meanings of time (Fortunati 2001).

O'Riain comments that 'global workplaces are subject to a process of time-space intensification' (O'Riain 2000: 180). A survey conducted in 2001 by AT Kearney management consultancy and Foreign Policy magazine ranked Ireland as the most globalised of 62 states (Times 2003). Much of Ireland's recent economic success is due to its ability to attract foreign
investment. Ireland has received 55% of all FDI in Europe - almost twice as high as the next most successful country (France at 21%) (Green, Cunningham et al. 2001). The levels of this investment can be illustrated by comparing OCED figures on investment per capita in four European countries: the US invested $3,000 per capita in Ireland, $2,000 in the UK, $500 in France and $200 in Spain (Economist 1997). The software sector provides many examples, in terms of the markets it serves and its ownership, of the globalised nature of the Irish economy. In 1998 Ireland overtook the US to become the world's biggest exporter of software products. Ireland exports 34% of the global software market, and in Europe, Irish companies provide 40% of the packaged software and 60% of the business applications sold (IDA Ireland, 1999). The bulk of these exports are from multinational companies (MNC) who are almost wholly dependent on the export market, exporting over 90% of their sales. However indigenous industry has increased its percentage of exports; In 1986 27% of the output from Irish companies was exported, valued at IR61 million. In 1992 the figure was put at 35%. By the late 1990s 60% of indigenous

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16 However many of these exports are accounted for by sales of software products that originate in the US and are localized or simply distributed from Ireland. Localization refers to the translation of existing software packages into different languages, so for example, French versions of MS word are produced in the Microsoft campus in Dublin.
17 Figures from the National Software Directorate for 2000 show that while foreign companies had average revenue of 7.6 billion, Irish-owned companies had an average revenue of 8 million. However these figures are not comparable as much of the foreign revenue is generated by the distribution of software, which is produced in the US, from Ireland to Europe. That is, the high revenue has more to do with the favourable tax regimes offered to US companies locating in Ireland than to any inherent higher levels of productivity in foreign owned companies (Arora et al, 2001).
18 Throughout the 1990s there has been a high start-up rate and low closure rate among indigenous companies. In 1999 indigenous companies employed on average 16.1 employees. This number is but a small increase on the 1991 figure of 13.1. Although the numbers employed in the indigenous sector has increased, the increase in the number of Irish firms in the sector has meant that average firm size remains quite low. In contrast there has been a considerable increase over the decade in the size of foreign firms. In 1991 on average they employed 53 people, while by 1999 this had risen to 97.7. 'Takeover' companies are companies, which were initially owned by Irish nationals but subsequently taken over by foreign entities. These are the largest firms in the sector, employing on average 173 people (Crone, 2002).
sales were being exported, valued at IR624 million (Crone 2002). Crone (2002) identifies three ways in which the indigenous software sector is particularly international; in the maintenance of overseas offices, in being listed on an international stock market and in being involved in mergers and acquisitions. A number of indigenous companies maintain overseas offices. In 1991, there were 50. By 1997 this had almost doubled to 97; 41 of these offices were located in the UK, 31 in North America, the remainder in Europe and other locations. By 2003 ten Irish companies have ‘floated’ on a public stock market, though one - Baltimore - has subsequently been de-listed\(^\text{18}\). In terms of ownership, overseas companies account for the majority of the revenue producing 8.7 billion euro as opposed to 1.4 million euro for the indigenous sector in 2000\(^\text{19}\). From this it can be seen that the foreign owned companies account for over 85% of the revenue generated in the sector. The majority of this revenue is based on exports. Although there are many more indigenous firms, they tend to be smaller in size and in terms of revenue produced.

These figures indicate the extent to which the Irish software sector is reliant on the global economy, both in terms of foreign ownership of its industry and sales on global markets. The Irish software sector is therefore a suitable site with which to take into consideration the effect of globalisation on working time. Geographically the Irish software industry is predominantly located in the capital city Dublin; 76% of all software companies, employing 83% of workers in the software sector, were located in the greater Dublin area in 1997 (Sheridan and Sterne 1999). Though the industry may be based on global markets, the workforce is predominantly of Irish nationality; 88% of employees are Irish. The Irish sector therefore is also a suitable


\(^{19}\) Data available on www.nsd.ie
site to examine how 'global locals' bring 'distinct local' cultures to the global state and (remake) both global and local relations in the process' (O'Riain 2000: 188).

5. UNIONISATION

Another aspect of the industry which is of relevance is unionisation. Union intervention has been cited as an important factor in the regulation of working time ((Taddei 1998); (Bosch, Dawkins et al. 1994)). The Irish software sector has a reputation for the flexibility of its temporal regimes, and collective agreements do not provide limits or regulate working time. Irish employment density peaked in 1980 at 61.93% (Roche and Ashmore 2001). Since then density levels have fallen and in 1995 the density level was just above 53% (Roche and Ashmore 2001). Union avoidance by US multinationals has been cited as a contributory factor in explaining this decline (Wallace 2003), particularly in the high tech sector (Gunnigle, McCurtain et al. 2001). The non-indigenous software sector is dominated by US owned companies, with the UK and Germany being the next largest nationalities represented (Crone 2002). Crone reports that a 'notable and persistent feature of the overseas segment of the Irish software industry ... is the dominance of a relatively small number of leading firms' (Crone 2002; 23) such that 'the top 20 firms accounted for 2.5 times as many jobs as firms ranked 21-60'. In this top 20 are many well-known US giants (Microsoft, Oracle, IBM/Lotus, Symantec, EDS and Sun Microsystems). Many of these companies are known to be hostile to unions. Though exact figures are not available, the rate of unionisation in the software sector is likely to be low. US owned greenfield sites report low levels of union involvement (Roche and Gunnigle 1995). Roche describes the industrial relations model in US electronic firms as 'the non-union human resource model' in which a core of employees benefit from good conditions, including the receipt of share options, while
conditions are less stable for a 'buffer' of part-time, temporary and contract workers (Roche and Gunnigle 1995). Mc Gunnigle argues that the impact of this is a greater emphasis on individualism, described by Collings as 'the use of performance related pay systems linked to appraisal and increased direct employee communication' ((Collings 2003:11); (Gunnigle, Turner et al. 1998)). The Irish IT sector provides an ideal setting from which to examine the influence of work organisation and technology of working time, as minimal legal regulation and the absence of collective agreements means that working time organisation is relatively unhindered by external constraints.

6. REGULATORY FRAMEWORKS
The Organisation of Working Time Act is the chief regulatory instrument governing working time in Ireland. It was introduced in 1997 and replaced all other legislation on working time. The Act implements EC Directive 93/104/EC, which approached working time as a health and safety issue and within these terms successfully argued for the introduction of legislation that restricted the working week to 48 hours. The Act is the main regulatory instrument for all aspects of working time, including breaks, holidays and maximum hours. It provides minimum rest periods, regulates Sunday working, zero hour contracts, night working and makes provision for bank holidays. It introduces the 48-hour week as the maximum permissible, though certain categories of workers are exempt (these will be outlined later). This 48 hours is an average, to be calculated over a period of four months. In certain cases this reference period can be extended\(^{20}\). However, as it is framed as a health and safety measure, there are no provisions for collective agreements allowing parties to opt out and ignore the 48 hours maximum. There is no legally defined standard working time.

\(^{20}\) In certain industries a six month reference period is permissible, and a twelve month reference period can be introduced following collective agreement between employer and employee organisations.
However, in terms of the legislation which has been introduced to Ireland, a number of points are worth highlighting. Firstly, the 48 hour limit under the legislation excludes time spent on breaks and lunch time. Therefore, a 55 hour working week would be permissible. This limit affects a very small section of the workforce (in 1997 the Irish Labour Force Survey indicates that only 6% of employees worked longer than 48 hours per week). On a local level, many industries have trade union agreements in place that allow for a smaller limit. For example in the Program for National Recovery in 1989, a clause was included that envisaged discussion between social partners on reduction in standard working hours. This resulted the following year in a 'Framework agreement' between employers and ICTU, which formed the basis of negotiations to be conducted at company level that resulted in a 39 hour standard week for most manual workers.

Secondly, although the European directive limited the absolute permissible level of overtime working, a derogation was permitted for member states in the case of 'managing executives' or 'other persons with autonomous decision making power' (Fynes, Morrissey et al. 1996: 206) - that is, a person whose duration of working time is determined by himself or herself may be exempted from the working time limitations set under the act. In the Working Time Act this is expressed as a permitted exclusion for

A person the duration of whose working time (saving any minimum period of such time that is stipulated by the employer) is determined by himself, whether or not provisions for the making of such determination by that person is made by his or her contract of employment.

The Act does not outline who falls within this category. It does seem that the act excepts from the 48 hour ceiling any employees who are not paid overtime as their salaries are not
tied to the hours worked. These are a growing category of workers in Ireland. Two of the three occupational categories showing growth are Managers, Proprietors (10.1% of the Labour Force in 1991) and Professionals (16.2% of the Labour Force in 1991) (Sexton and O'Connell 1996). Fynes et al argue that, with the exception of clerical workers, 'non-manual workers are more likely to work overtime on a non-remunerated basis, apparently as a normal feature of administrative, managerial and professional careers in organisations' (1996, 89). They emphasise that as these categories of workers grow, the percentage of the workforce required to work un-paid overtime will grow. They further outline that

For these categories of employees management faces no cost constraints on overtime and no endogenous constraints are apparent. Indeed quite the contrary as organisations lay increasing emphasis on 'commitment' and as managerial careers become more professionalised, the pressures on managers to disregard any distinction between normal and required working time seem set to increase (1996: 206).

Thirdly, the definition of being 'at work' included in the legislation is restrictive. Working time is defined as being the time when an employee is both at his or her place of work and 'carrying on or performing the activities or duties of his or her work'. It is not considered to be 'working time' if an employee is at work, but on a break. In addition, if an employee takes work home with them, the time spent on this work is also not considered to be working time. Travelling time where it is regularly required is also exempt. As such, the Act seems to exempt from its remit aspects of work organisation which can be particularly found in the IT sector (temporal autonomy, teleworking, global travel). The very large numbers of people
excluded by the Act \(^{21}\) weakens considerably the scope of the act to have a major impact on working culture in Ireland. It is probable that the act is regularly broken in particular areas, such as the section in which employees who have worked eight months in the year must take at least two weeks unbroken leave. The areas in which cases have appeared before the Labour Court have been concerned with holiday pay, public holidays, zero hour contracts, Sunday working and who is exempt from the act rather than the number of hours worked in the week (IRN 2000, cited in Wickham 2000). However, Wickham reports that the lack of trade unions in new enterprises, particularly within the high-tech sector, reduces the likelihood that infringements of the Act will be reported (Wickham 2000)\(^{22}\)

### 7. CONCLUSION

In this chapter I have outline the specific context in which the study was conducted, contexts which impact on the way in which working time is organised. The study was conducted at a time of employment growth and skill shortages which allowed employees greater opportunity to create favourable conditions of work. The software sector in Ireland shares many of the features of the software sector in the US (from which many accounts of software work emanate). It is concentrated in a limited geographical area. The software sector in Ireland is primarily located in Dublin, just as that in the US is located in Silicon Valley. The workforce is highly skilled, young and mostly male.

\(^{21}\)Workers in sea fishing or work at sea, doctors in training, persons employed by a relative, persons who determine the duration of their own working time, persons working in the transport sector or civil protection services, persons working in research and development, agriculture, tourism, the collection of household refuse or operation of incineration plant, any industrial activity which for technical reasons can not be interrupted, production, transmission, distribution of gas, water or electricity, and activity falling within a sector of the economy or public services (a) in which the rate of production will vary from time to time or (b) the nature of which is such that employees are directly involved in ensuring continuity of production or provision of services.

\(^{22}\)Though he also notes that infringements of the Act can be brought by trade unionists rather than individuals.
Most of the companies are either US owned or produce goods for the US market, so it would be expected that US working culture is strongly represented. An indication that this might be the case can be seen in the union avoidance strategies applied within the sector. Like the US, legislation has limited impact on working time organisation. The comparison between the US and Irish experience will be returned to in the conclusion.

The chapters that follow will illustrate how, in the absence of these external regulatory frameworks and a time of employee strength, working time is organised and structured.
The research took place from October 1999 to September 2000. The research design chosen was that of a critical case study located in the software sector. The software sector was examined through the use of a longitudinal panel study which consisted of workers from the software sector. The methodologies applied were quantitative and qualitative time diaries and in-depth interviews. Participants were asked to fill in time diaries at intervals over the course of one year. Following the completion of the diaries, they were interviewed.

In the following sections, after a brief outline of the critical realist framework within which this study operated, I explain why I chose a critical case and a longitudinal panel research strategy. The methodologies, in-depth interviews and diaries, will be described. Finally I summarise how the data produced from these different methodologies was analysed.

1. RESEARCH PERSPECTIVE AND DESIGN

Critical Realism

This study is situated in the tradition of critical realism. I am not here going to engage in a discussion of realism versus relativism. Following Casey, this is a critical account in that it 'recognises the discursive construction of knowledge, and that the cultural construction of meaning is always a matter of political and economic interest' (Casey 1995: 199). Thompson and McHugh argue that critical realism proves 'an alternative, middle ground between positivism and relativism' arguing that 'there cannot be an exact correspondence between reality and our representations of it, but good research aims to grasp the real with as much accuracy and complexity as is feasible.' (Thompson and Hugh 2002: 359). Casey describes her critical ethnography as 'necessarily a narrative fiction' however also argues that it 'invites credibility from the 'natural' validity of the
data and its rendering in theory' (Casey 1995:203). It is within these contexts that I locate myself with the critical realist tradition:

Thompson and McHugh outline a number of considerations when creating a critical realist account of work organisations (Thompson and Hugh 2002). Accounts must be reflexive, that is, they ‘must have the capacity to reflect upon themselves so that values, practices and knowledge are not taken for granted’(Thompson and Hugh 2002). They must be aware of the embeddedness of the organisation and take account of the political, economic and social structures within which the organisation exists. The study must be located historically. This is particularly true in this account which was located in an exceptional period of growth and prosperity. The study must be multidimensional, considering both the structures within which individuals operate but also how individuals act upon structures themselves. They finally argue that theory produced should be practical in that it ‘can help members of organisations, constrained by existing relationships of ownership and power, to critically reflect on and reconstruct their circumstances’ and can be used ‘as a means of empowering a wider range of organisational participants’ (Thompson and Hugh 2002: 19).

In respect of the last point, this thesis is modestly critical in that I recognise knowledge only becomes useful when it is distributed to those who may have need of it, and that a PhD thesis in itself is not an appropriate method of delivery of knowledge to non-academics.
Critical Case Study

This section outlines the logic for choosing a critical case design. The features of the software sector in Ireland that make it a suitable location for the study will be highlighted.

Case study research incorporates the use of various methodologies to a particular context or locality (Brannick 1997). Within labour process theory and industrial sociology there is a tradition of case based research. Roche (1997) indicated that research projects may have more than one objective. In designing case studies he argues that it is 'always desirable' to assign a priority to those objectives. Various types of case research designs exist, each best suited to achieving a different objective. Some of these possible objectives are; to develop an understanding of the group under study, to explore with a view to developing a theory or a new hypotheses, to clarify theoretical concepts, to produce typologies – a set of categories that define types of social phenomena, to illustrate a theory, to test a theory, to refine a theory, to extend a theory and develop it further or to refute a theory. Roche argues that 'research should always begin by examining theoretical concerns and move from there to elaborating a logic of case selection' (Roche 1997: 102).

With the critical case study, the intention is also to test and develop a theory. A case is chosen that will best represent the conditions under which the theory will hold (or if the intention is to refute the theory, a case can be chosen where the theory would be expected not to hold). A developed theory is necessary in order to be able to establish under what conditions the theory would most probably hold.

Roche identifies two key questions when designing such a case study. Firstly, how to select the cases and secondly how to generalise from the cases. In his seminal work *Manufacturing*

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23 Note that the word critical has two different meanings. Previously in the descriptions of critical realism, critical refers to the attempt to see a thing clearly in order to judge a truth fairly. In the following section, critical refers to the identification of a study site which is crucial, key or decisive.
Consent, Burawoy justifies his use of a single case study by arguing that the part is an expression of the whole and that 'each part contains within it the essential principles of the whole' (Burawoy 1998: xv). He also argues that the whole is 'composed of mutually inter-dependant parts'. By looking at one of the parts, he hoped to understand the whole; 'this is generalisation by extension from the part to the whole' (1979: xv).

Gummesson, and Glaser & Strauss both use different logic in selecting their cases ((Gummesson 1991); (Glasser and Strauss 1967)). Gummesson and Glaser & Strauss argue that the cases should mimic 'in a qualitative way the generic logic of sampling in social research' (Roche 1997: 122). Cases are chosen because of the difference between them. In order to allow for meaningful generalisation the theory has to be shown to allow for variation. In contrast Yin argues that multiple case studies are the logical equivalent of repeated experiments (Yin 1993). The same results should occur after each case study. Again, a clearly defined theoretical framework is necessary so that it is possible to identify cases in which the theory should hold. Although both groups apply different logic to justify their research design, Roche concludes that essentially both methods are similar. Both groups, keen to make a distinction between their sampling logic and statistical sampling, argue that while statistical sampling intends to allow generalisation from a sample to a population, 'analytic' sampling differs in that it intends to allow generalisation from a sample to a theory. Roche rejects this distinction as false, arguing that in the social sciences sampling allows generalisation to a theory, a theory that refers to a population. The distinction between non-statistical and statistical sampling, he argues, lies only in the ability of statistical sampling to provide an estimate of confidence, that is, to put a number on how close the sample is to the population. This is not possible with non-statistical sampling.
The research design I choose is that of the critical case design, that is, I am presenting a 'critical tale' which involves 'the conscious selection of a strategically situated culture in which to locate one's fieldwork' (Maanen 1988). Following Roche's definition outlined above, the intention here is to test the theory that post-industrial modes of work organisation will produce a post-industrial theory of time. A case is chosen where a post-industrial experience of time will most likely be found, and from that case a description of post-industrial time is developed. The case under study is the software sector. This has been chosen because production technologies, market structure and organisational form have been linked by commentators ((Zuboff 1988); (Hodson 1996); (Flecker and Hofbauer 1998)). The software sector is at the forefront of technological advances and it is responsive to a highly volatile market. It has adopted the new organisational forms of the knowledge industry. If post-industrial work organisation has associated with it a particular type of working time (as suggested in chapter one), it would be expected that evidence of these types of time would be found in the software sector.

Traditionally, the case under scrutiny is examined through the study of a particular company or organisation. In this thesis the software sector is examined by focusing on employees who are working in number of different IT companies. There are two justifications for choosing this approach. Firstly, there is a high rate of job mobility within the software sector. The longitudinal panel design (described below) meant that the research process was conducted over a year. If I had focused on companies rather than the individuals within those companies, many of my participants would have dropped out of the study by year end as they left their employer. As I was interested in working time within the sector it seemed logical to follow the individuals from company to company. This pragmatic reasoning led me to focus on individuals. However, as will be outlined below, the initial
selection of individuals was made so that four companies of the eleven companies employed more than one participant. This was done in order to incorporate some of the aspects of a company case study into my research design, while accepting that mobility between companies would inevitably mean that it would not be possible to trace the companies for the entire year. The second reason for focusing on individuals rather than companies is to limit the mediating effect of company culture. Gronning discusses the problems of achieving 'front door' access by 'direct contact with the corporation's high-level representatives' (Gronning 1997). Totskua identifies four type of industrial research conducted in Japan:

The 'front door' approach consisting of interviews with management (and union officers, in cases where there is a union), supplementing with tours of the factories and the collection of documents intended for in-company use: 
Interviews with workers and supervisors, either in their homes or at some neutral ground
Research based on collaboration with union activists.
Research based on cases brought to some kind of legal action (Totsuka 1995: 109-110).

The disadvantages of the front door approach, relates not only to the difficulty of gaining access, but also to the fact that such access is mediated by the organisation. I would suggest that such mediated access is particularly problematic in organisations with a reputation for manufacturing culture in an attempt to harness subjectivity. Burawoy described an element of game-playing as employees learn what types of responses and attitudes are expected of them within the workplace (Burawoy 1979). I would suggest that mediated access makes it more difficult to look behind the company 'face'. This then is a second justification for focusing on individuals whose participation has been obtained independently of the companies they worked for. As far as possible I also conducted the interviews in non-company space (either in the public space of a park, a pub or in the interviewees' own homes).
As mentioned earlier, the potential for meaningful generalisation is increased if the cases allow for variation. In order to increase the generalisability of the research, individuals were selected who worked in a variety of software companies. These varied according to:

Ownership. The initial sample included individuals who worked for private companies and listed companies. The former is least dependant on market pressures, while the latter is highly dependant on quarterly results and so is under increased temporal pressure. Two individuals who were independent contractors were also included.

Age and Size. The sample also included individuals working for small/start-up companies and those working for larger/more established companies as long working hours and work intensity are often associated with the excitement of belonging to a new and promising project.

Occupational Culture. In the sample were companies with Irish, US or French ownership. In the US long working hours are the norm, while in Europe, particularly in France, working hours are much lower.

Initially the twenty one participants in the study worked in eleven different companies. Four companies had more than one participant, and these companies were chosen to reflect variations outlined above: two were large Irish owned software companies: one of these had management drawn from traditional Irish business background, in the other the management was either brought in from the US or drawn from the Irish IT sector. The third company which employed multiple participants was large and US owned, the fourth was small and had a mixed US and Irish ownership. As mentioned above, it was recognised that the participants were likely to move and so they, and not the companies would be the focus of the thesis. However by selecting a number of individuals from these four companies I
was able to consider issues of company culture in the final analysis. By the end of my research period, thanks to movement by six participants, nine more companies were represented in the study. That is, by the end of the research project the interviews and time-diaries were referred to the experience of 21 individuals working in 17 different companies. Of the four core companies chosen, in one company none of the participants had moved, in another all but one of the participants had moved, and in the other two some of the participants had moved and some had stayed.

In order to protect the anonymity of the participants, in the text, the companies are not referred to by their real names. Appendix 1 contains brief biographies of the participants and Appendix 2 contains information on the companies they worked for.

A number of software engineers were previously involved in a research study I conducted (O'Carroll Unpublished) and these engineers were included among these informants. From these initial contacts I was able to make contact with the rest of the participants. However, my research was not limited to the engineering occupations. Employees in customer support, marketing, and purchasing departments also participated. Within software development, Beirne et al note: 'a growing degree of fragmentation and stratification of activities and responsibilities' (Beirne, Ramsay et al. 1998:144). They also note the broadening of the Information Services (IS) occupation arguing that there has been 'a shift from a simple labour market to an amalgamation of various distinct sectors, including technical experts, engineers, business consultants and clerical staff' (Beirne, Ramsay et al. 1998: 144). Since the 1980's a shift in power has been evident from IS departments to marketing and finance ((Friedman and Cornford 1989), (Knight and Murray 1984)). Thompson and Warhurst argue that 'horizontal co-

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24 I lost track of one participant as he began to work abroad for his new company, which was based in Holland.
ordination which combines flexibility with the pooling and sharing of information can produce a trend towards 'de-professionalisation', as the boundaries between occupations and skills becomes more fluid' (Warhurst and Thompson 1998: 13). Furthermore, developers are only one segment of a software industry which increasingly relies on other functions such as marketing, sales and customer support. This research project looked at the sector, which comprises a number of occupations, rather than the single occupation of software development. By doing this it was able to capture the range of temporal experiences that exist within the industry.

Gender, age and parenthood also impact on work time (Keown, Ferguson et al. 1998). The participants' ages ranged from their early twenties to their early thirties. This age group reflects the age of profile of the majority of the workers in this sector25. Some were single, some co-habiting, and some were married. One couple was included in the research. I was not able to include any participant with children in the research as I had difficulty in contacting IT workers with children, and those I did contact were not willing to take part in the research. Difficulty in finding parents in part reflects the profile of the sector which has a high proportion of workers in their mid-thirties and under, workers who have yet to make the transition to parenthood. In the years since my field work was completed some of my participants have had children, and as the sector persists over time, this will be an increasingly important element in the workforce26. Difficulties in persuading parents to participate in the research could also reflect temporal difficulties felt by parents, the two women I had contacted said they did not have the time to take part in the project. Towards the end of the research process I participated in

25 As we have seen in chapter two, in the year 2000, almost 75% of the employees were below the age of 35 (source: Quarterly National Household Survey, special extraction for Nace 72)

26 A separate set of issues are raised if parenthood itself causes early exit from the sector.
a study of women working in IT. Twenty people, of various ages, some with children and some without, were interviewed. This afforded me the opportunity to incorporate the findings from that research project, particularly in respect to the impact of children on working time, into this one.

2 FIELDWORK

Longitudinal Panel Study
A longitudinal design was applied such that the data was collected at five different time periods. I adopted a prospective design, in which the panels analysed were made up of the same individuals, thus allowing me to follow individuals at different periods of time. This research design was chosen to allow me to capture the rhythmic nature of work in the IT industry. As different societies have different seasonal holidays, I included Christmas and New Year periods in my research in order to assess whether the times and rhythms of these holiday periods, traditional in Ireland, were altered by belonging to a globalised workplace.

Tools: Time Diaries & Interviews
In this section I describe how time diaries and in-depth interviews were used in the study. Ruspini highlights that one of the advantages of longitudinal data is that it builds a bridge between ‘quantitative’ and ‘qualitative’ research traditions (Ruspini 1999). Below I outline the quantitative and qualitative tools applied in this research.

As the research project is concerned with the subjective, with understandings and perceptions of time, with ideologies and time consciousness, qualitative methods which seek to uncover the hidden meanings and taken for granted assumptions were

chosen. This research project needed to consider the following points:

1) An understanding of the multiplicity of times we live in. Particularly what was required was analysis of the ways in which these times interact with each other. The links and the boundaries between the different time scales we operate needed to be explored. This means that work time was considered hand in hand with leisure-time, break-time, lunch-time etc. Below, Adam suggests how the different aspects of time may be studied:

Two central sources of the shared nature of 'my' time are language and the organisation of collective life to the rhythm of the clock. From the moment we acquire it, language frames our temporal experiences, whilst the clock seems to mediate a large proportion of our social interactions. Focus on the way we employ the concept in everyday usage therefore, provides a rich source of data on the breadth and diversity of time shared by people speaking the same language: Focus on clock time allows us to see the backcloth upon which experiences of 'our' and 'other' times are drawn and constructed (Adam 1994: 19).

2) Central to our understanding of time is the reification of clock time as being the only time. Adam argues that the aim of any research project should be to expose this nature:

... public time and logocentrism underpin much of Western science, politics and industrial action. This rational and commodifying tendency is in many ways counterproductive and even harmful at the personal and global level as well as being a force against equal opportunity between sexes, cultures and species. Its hegemony therefore needs to be exposed, its complexity explicated, its vulnerable access points explored, so that its pervasive hold may be broken (Adam 1994: 157).

Examination of reification was approached through an exploration of how clock-time is interpreted, and how its meanings are internalised, altered or negotiated. This theme runs throughout the chapters. I approached time on a number of different levels. Firstly, I was aware of the heterogeneity of
time. With industrialisation, the time of work, economic time, became synonymous with clock time, an abstract measure of hours and minutes. Other times, seasonal cycles, times of growth and death, faded into the background. Yet these other times still exist, the time sense of a women in labour, a terminally ill patient, an artist, operate in parallel with clock time (Adam 1995). I examined the relationship between work time and non-work time. The post-modern assumption is that people make decisions, they choose the lifestyle they prefer. To address this argument I examined the ideologies and perceptions held about time.

The labour process approach is that people are constrained by the way work is structured, and so coerced into spending longer at work. I examined the relationship between work discipline, the clock and the task. I identified the role played by routines, rhythms and sequences in the flexible workplace. Present in much research on flexibility of working hours is the assumption that time spent at work is time spent working. Consideration of the variety of times that exist also lead me to examine the way flexible work time is utilised. There are two dimensions to this, Firstly, when do people decide to go to work? Once there, what are they doing?

Two research methodologies were combined to assist me in this endeavour: the use of time diaries and in-depth interviews,

Central to this research project is the question of how people spend their time. A central problem with time-use research is that it is impossible to be present during twenty four hours of a subject’s life. Time diaries have been described by Elliot as a means to ‘observe’ behaviour which is inaccessible to participant observation (Elliot 1997). They ‘make visible the invisible’ (Morrison and Galloway 1996: 34). Their advantage over questionnaires is neatly described by Robinson & Gershuny:
Questionnaire-based surveys which ask people to compress their actual behavioural experiences into summary statements (e.g. whether they 'often' or 'usually' do something - how much time do they devote to them) isolate respondents' activities from the natural temporal context in which they are embedded. In contrast, time-diary accounts report activities as they naturally occur in daily life. This type of activity helps us to study human activities in 'real time' - the stream of daily activity in its natural sequence. The open-ended nature of activity reporting means that these reports are automatically geared to detecting new and unanticipated activities (e.g. aerobic exercise, use of new communication technologies) as well as capturing the sequential context of how daily life is experienced. (Robinson and Gershuny 1994: XI)

They have been used in two different contexts, in health research and in discovering the hours of paid work. The former approach is more qualitative. Morrison and Galloway used time diaries collected from 17 supply teachers to examine their lives and work (Morrison and Galloway 1996). The diaries were unstructured and open, subjects were asked to fill in what they were doing at each hour during a twenty four hour period. If the subject wished, they could also record comments in an 'other' column. Data on eighty days was collected. Information obtained in the diaries was returned to in the course of the in-depth interviews. The researchers concluded that:

The diary account is unconstrained by inhibitions, whether spatial, temporal or personal, which might feature in the interview or observation situations. The method succeeds in giving access to events that the researcher has been unable to observe (Morrison and Galloway 1996: 41).

In contrast, a more quantitative use is made of the time-diary by Robinson and Gershuny as their interest is more narrowly to measure the hours of paid work. Their motivation is to discover a method that is more accurate than estimate questions (which ask respondents to remember how many hours they worked the
previous week). As the information they are gathering is much simpler (by not including respondents' reflections) the sample size is considerably larger, with 3,897 questionnaires being completed, covering a period of 168 hours over 4 years (Robinson and Godbey 1998: xiii). They make a number of methodological points. Firstly, the diary accounts do not prioritise work activity over any other, all is given equal attention. Secondly, collecting a single day or week of material may give rise to errors, as those who work longer than scheduled hours in one week may compensate by shortening another. Either the unusually long or short week could be included in the sample. Finally diaries can be cumbersome to analyse.

In this research project two types of time diary are to be used: a daily and a weekly time diary.

The purpose of the weekly time diary was to establish the structure of the working week: how many hours do the respondents work, when do they begin and finish work, how often do they take breaks, when are these breaks taken and for how long.

The purpose of the daily time diary was to gain more detailed knowledge of how the respondents spent their time. They were asked to detail what they were doing, every half hour, for one 24 hour period. Both diaries also contained sections which allowed the respondents to provide any other information which they may have felt was useful, and also questions as to how typical the day/week was. The information gained from the diaries was used to inform the in-depth interviews.

The respondents were asked to fill out the weekly diary every two months. Everyone in the study filled the diary out for the same week\textsuperscript{28}. The twenty one participants were asked to fill out their diaries five times:

\begin{footnote}{\textsuperscript{28} Occasionally if a participant forgot to fill out their diary, they were asked to fill it out for a separate week instead.}

\end{footnote}
• Diary 1: Week beginning 11th October 1999
• Diary 2: Week beginning 13 December 1999
• Diary 3: Week beginning 27th December 1999
• Diary 4: Week beginning 24th July 2000
• Diary 5: Week beginning 25th September 2000

Appendix 3 contains a sample weekly diary.

Diary three was selected to include the week which contained New Years Eve. This was done as I wanted to include a period of time that in Ireland is traditionally a 'non-work' time. Initially I designed the diaries so that they would fit into a jean's pocket and be easily carried around by the participants. However, following the suggestion of one of the participants, I sent the latter diaries over email.

For one day in each week they filled in the daily diary. This day changed from month to month to capture any variation between days: The days chosen were Wednesday, Tuesday, New Years Eve, Thursday and Sunday. As with the weekly diaries New Years Eve and Sunday were chosen in order to include in my diaries times that are traditionally 'non work times'.

Appendix 4 contains a sample daily diary.

The main problems with longitudinal research design are panel attrition, lack of information on intervening phases and panel conditioning, I used a combination of methodologies to minimise these effects, so for example each phase of diaries was followed with an interview. Part of the interview was concerned with the participants experience of being part of the study, these questions and face to face interactions allowed me to encourage the participant to continue with the study. This, and modification of the diary design resulted in a low attrition rate. Sixty nine diaries were completed, which reflects a response rate of 65.7%.

The interviews also allowed me to access information about the time span between the diary period. I was not able to obtain precise data on working hours for these intervening periods, but
I was able to acquire impressions as to whether the work was more or less intense.

Trivellato cautioned that because the same individuals are being repeatedly interviewed in the panel study, later answers could be conditioned by earlier responses (Trivellato 1999). I found that if the time period between the diaries was sufficiently long, the participants often forgot what they had told me on previous occasions. I found that an additional advantage of repeated interviewing is that the nature of the interview changed, such that the earlier ones were more question and answer sessions while the later had a more conversational aspect to them. Partly, this is because on repeated meeting the interviewee became more comfortable with me and with answering questions. Also, successive interviewing enabled me to encourage the interviewees themselves to reflect on answers both they and others had given previously.

Menard suggests that participation in the study may alter the participants perceptions (Menard 1991). To assess whether the participants themselves felt this to be the case, I asked them at the end of the research if they felt taking part had altered their approach to time. One participant said it only made him think more about time while he was actually filling it in, another four said that filling in the diary had not led them to think more about time. By far the most common response from the participants was that it made them aware of the breaks they took at work, for one person, it made him aware of how often he smoked in work. Those who were made aware of their breaks commented on the fact that they were working fewer hours than they thought they were, but this did not make them feel that they should be taking fewer breaks and working more hours. Instead they found it interesting to be able to see the structure of their working day, but did not feel that this structure needed to be changed. Four of the participants felt that over the year they had become more aware generally of time in their lives. For
some these were issues they were already aware of but had not articulated. In this answer Aoife\textsuperscript{29} identifies a range of issues from her own shift working, to the number of breaks she took, to the length of the working day:

Q. And the last question is, has participating in this study changed the way you think about your working time?
A. Well, it just made me think about it. I probably hadn’t thought about it that much before because I was, I think, reasonably happy with it anyway. I mean the whole thing about the shifts and stuff like that I’d thought about, because I could feel that it was slightly affecting me, because I’m just not great getting up that early but other than that no. I thought it was interesting actually. It just makes you think of how much time we spend on breaks and going to the loo, the daily diaries and just generally. I mean even last week we sort of went off from the time thing to much broader issues and (that) kind of thinking obviously didn’t make me realise anything I didn’t know but it was sort of interesting to actually have to word it. So I thought it was interesting but half the time I kind of want to ask you the same questions. A lot of our friends would work really long hours but then when you start scratching the surface you also realise they get in really late and they play computer games for a fair bit of the time. And I’m not suggesting they don’t work way harder than I do, because I know they definitely do, but it’s still not as much as it looks.

(Aoife 3: 359)

Participating in the study brought to the fore a number of points which she had, on some level, identified already. One participant said that the study had not influenced him because time was already something he thought about. Another spoke about how she had become aware of how her work process took place at home and at work. She identified this as a problem that employers would have to face. Four interpreted the question as

\textsuperscript{29} In the text each quotation is followed by an identifier which indicates where in the original Nudist file the quote is located. For example ‘Aileen 3: 80-84’ indicates that the quotation came from the third interview with Aileen, and that the text is numbered from 80-84 in the Nudist files. Pseudonyms are used in order to protect the anonymity of the participants.
referring to time management and spoke either of not having a problem organising their time or of their desires to be able to manage it more. The variety of answers to these questions indicates that there is no straightforward conditioning effect, some participants were more influenced by the study than others.

The responses which equated the research with time management could be seen to be evidence of a management discourse which is shaping the participants’ understandings and experiences. Garrick questions whether employees can be assumed to reflect rationally upon their everyday experience and comprehend their ‘own’ experience ‘objectivity’ as ‘such accounts are ‘inscribed’ through the circulating discourses’ (Garrick and Rhodes 2000: 213, 214). This study recognises the powerful effects of a management manufactured culture, but steps back from seeing it as a totalising culture. The multiple responses to the question asked indicated that management culture is not universally effective. Rather it is one resource among many, some originating within the workplace, some outside, which subjects draw on in order to make sense of the environment they find themselves in.

The aim of an in-depth interview is to allow the subject space to speak freely on topics suggested to him/her by the interviewer. In this way the researcher can get a greater understanding of the point of view of the subject and as the subject is encouraged to be expansive and descriptive, the responses given will provide information about the interpretations the subject is applying to a given situation. It is less likely that the subject’s interviewer will impose his/her own meanings on the relationship being examined.

Participants were interviewed following completion of the time diaries, this allowed me to use the time diaries in the interviews. Often information noted in diaries or in the interviews was returned to in further interviews. Each interview contained a mix
of questions, some asking directly about time, others asking more broadly about aspects of their working and non-working life. The guidelines for these interviews can be found in Appendix 5.

As mentioned above, towards the end of my research project I participated in a research project which focused on women in ICT companies. Some of the women and men interviewed in 2003, were also in my initial group of participants, interviewed in 1999/2000. This return enabled me see how the participants, in the light of the downturn in the sector, now viewed their working times and life.

**Analysis: SPSS & Nudist**

Analysis was conducted using a combination of statistical and qualitative software programs and old fashioned pen and paper.

**SPSS**

SPSS$^{30}$ was used to analyse the results from the 69 weekly diaries received, as it is capable of handling temporal data. The diaries recorded the starting time and finishing times for each day the participant worked in the week surveyed by the diary. These times were entered into a SPSS data file. From these figures a number of other variables were calculated:

*The average starting time*: the mean of the starting times of Monday through to Sunday.

*The average finishing time*: the mean of the finishing times of Monday through to Sunday.

*The length of each working day*: calculated by taking the starting time from the finishing time.

*The average length of the working day*: the mean of the days’ length described above, Monday through to Sunday.

---

$^{30}$ Statistical Program for Social Scientists
The number of hours worked per week: the sum of the lengths calculated above, Monday through to Sunday. The number of hours worked per week, excluding lunch, was also calculated by subtracting the sum of all the lunches (assumed to be the largest break) from this figure.

These variables were transformed from temporal to numeric form in order to facilitate graphical display. The hours worked in a week were recorded into categories, again to facilitate analysis. On the weekly diaries the participants were also asked to note when they took a break and how long it lasted. In SPSS I created a variable for each time-interval and noted how often in the day a break of that length had been taken. From this I calculated how many breaks were taken in the day and estimated how much of the day was spent on breaks.

Data on the length of the working week, reported in Chapter Four, draws from diaries with full working weeks only (that is diaries with weeks which were missing days or with half days were excluded). This reduced the number of diaries examined from 69 to 43.

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31 When producing graphs SPSS presents Temporal data in seconds which is difficult to read, numerical data is presented in hours. For example the mean of the average starting time is given as 39679.7 seconds if a histogram is calculated using temporal data, and as 9.91 hours if calculated using numeric data. 9.91 hours is a starting time of 9:54 am.
32 The categories are: less than 10., 10-19.9, 20-29.9, 30-34.9, 35-39.9, 40-44.9, 45+
33 Participants were asked to note a letter depending on the time spent on the break: a Between 0-5 minutes, b Between 6-10 minutes, c Between 11-15 minutes, d Between 16-30 minutes, e Between 31-45 minutes, f Between 46-60 minutes.
34 In calculating the length of the breaks, I took the mid-point as a the length, ie break a=3 minutes, b=8 minutes, c=13 minutes, d=23 minutes, e=38 minutes, f=53 minutes.
**Nudist**

In all fifty five interviews were conducted. Some of the interviews were transcribed by myself, the bulk of them were transcribed by a transcribing service. Forty eight of these were coded using Nudist. I would have liked to have coded them all but was prevented by pressures of time. However, during the course of the analysis as questions arose I referred back to the (uncoded) hard copies of all the interviews. By moving back and forth from Nudist to the raw interviews I sought to develop a holistic understanding of the interview material. My analytical approach is derived from Grounded Theory (Glasser and Strauss 1967). A hypothesis was developed before data analysis began. This was informed by my reading of the literature on time and on work organisations and by my experience of the IT sector (gained previously when carrying out a research project on the IT industry for a MSocSc thesis). This hypothesis was a methodological tool, which provided guidelines that assisted in the interview process and in the initial coding. It was seen as no more than a tentative suggestion as to which areas which may be fruitful to examine.

When coding I used a mixture of a priori codes, which were informed by my theoretical understanding of the relationships between work organisation, culture and time and inductive codes which emerged in the process of coding. The process of collecting and analysing data was cyclical, the data was frequently re-visited and re-examined. Before conducting interviews I reviewed earlier interviews. After the initial codes were applied and as the analysis progressed, additional codes were added. Some of the codes were grouped into a hierarchical system of categories and properties, and some were left as free nodes. Memos were attached to some of the codes. The process of writing uncovered previously unseen connections between coding groups and sent me back to the data to look at it again. The Nudist codes be found in Appendix 6.
In addition to using the Nudist files, I annotated a hard copy of the interviews, writing memos and notes in the margins. This hard copy was referred to hand in hand with the Nudist computer files, as a problem with the use of Nudist on its own is the ease at which it abstracted segments of conversation from the whole. The use of both the hard and soft versions of the same data enabled me to maintain an understanding of how the subsection of data I was focusing on, at any particular time, fitted into the flow of conversation.

When citing interviews in the text in the main I have included conversational units, my questions and their answers, rather than selecting more precise excerpts. I have done this in order to, as far as is possible, minimise the decontextualising that occurs when selecting parts of a conversation to illustrate a point.

In the day diaries the participants detailed what they did every half hour, these were analysed in a similar fashion, through using old fashioned pen and paper rather than Nudist. Themes were identified and were referred to after the coding of the interviews was completed so that the day diaries were used as a supplementary form of information which could be contrasted with that derived from the interviews.
In this chapter I examine the results of the time diaries distributed to IT workers in this study. Contrary to my expectations I find that long hours were not reported in most of the days recorded. This leads me to look for explanations of this diversion from the popular story of the IT sector. Various factors are examined and company culture is identified as the one which seems of most importance. However company culture is not alone in influencing working hours, also of importance is the orientation towards working time which exists in the Information Technology sector. As Ellingsaeter argues ‘temporal organisations and cultures of work develop within the interplay of institutional and economic opportunities and constraints, the practices of firms, and the worker’s expectations, preferences and practices’ (Ellingsaeter 2000: 6). This chapter examines the interplay between company and employee practices, culture and orientations.

In the first part of this chapter I examine the data on the working time duration obtained from the diaries distributed and from national data sources. This information on working time in the Irish software sector is compared with general statistics on working time in Ireland and in other countries. In the second part of the chapter I outline particular features of the IT sector which seem to influence working time. E. P. Thompson argued that the task orientation of pre-industrial society was replaced by a clock orientation of industrial society. In the third part of the chapter I consider how the orientation to time in the IT sector would be described. In the final two sections of the chapter, I look at the examples of those who worked longer
hours and those who worked shorter hours, to illustrate the
dynamic interplay between company culture and temporal
autonomy.

1. WORKING TIME IN THE SOFTWARE SECTOR IN IRELAND

This thesis started with the assumption that the computer
industry in Ireland is no different than that in the US or the
UK. Like computer workers in other countries, I expected that
the people who participated in my study would be working
longer than the norm. In popular mythology computer workers
are supposed to work long hours. There are the stories of the
programmer who slept under his desk, of the programmer who
programmed nude late into the night, scaring the cleaners
(Bronson 1999). In Ireland there are stories of stressed families,
of frantic cities. In chapter one, we saw how the computer
industry revolves around information, information that travels
around the globe in seconds. There is a constant drive to bring
products to the market place in a shorter and shorter space of
time. The speed of the technology is pictured as propelling
society to a more frenetic, faster paced existence. Society is now
divided between the ‘cash-rich, time poor’ and the ‘time-rich,
cash poor’ (Gershuny and Robinson 1994). Long hours are often

35 It is difficult to reconcile national time data on usual hours worked as
different groupings are used in each country; for example Ireland has a 40-44
hours group, while the US groups those working 41 to 48 hours together
while UK uses instead the category of 31-45. In the US data on the average
work week is derived from the Current Population Survey. In 2002 the
average hours of persons who usually worked full-time, working in
agriculture and non-agriculture industries was 42.9 hours. In the UK the
Labour Force Survey contains data on average usual hours worked of full­
time employees. In 2002 the total average figure for all occupations was 43.3
hours. The Irish data is obtained from the Quarterly National Household
Survey. In 2002 the average hours worked for all-employees was 38. However
this average is based on the ILO definition which includes those working very
short hours. 20% of this figure is comprised of those working less than 35
hours a week. However, despite these difficulties it would seem to hold that
working hours of full-time employees in Ireland are shorter than that in the
UK or the US. In 2002 23% of the labour force in the UK work longer than 45
hours compared to 19.1% of the labour force in Ireland (data from 2000).
28.5% of the labour force in the US work longer than 41 hours.
Data obtained from www.cso.ie, http://www.bls.gov/cps/home.htm and
www.statistics.gov.uk
identified as a problem in Irish society. The Equality Authority, an Irish governmental agency, promotes ‘family friendly’ working as an alternative to ‘long-hours’ culture. In the Irish Times this is covered as follows:

If you’re in the habit of clocking in at 9 a.m. and clocking off at 9 p.m., dragging yourself into the office on weekends and building up a backlog of annual leave days, then today is the day to go home on time, switch your mobile phone off and celebrate the fact that it’s Family Friendly Workplace Day (Slattery 2003)

Another article reports “Downshifting is the new ‘in’ phrase. No sooner is the population in employment than everyone, it seems, is talking about the need to work less and live more” (Wren 2000). Reports on working conditions in the UK and the US are often carried in the Irish media, further fuelling the sense that within the IT sector long hours are the expected norm.

The participants in the project were asked, over the course of a year, to fill in weekly time diaries which noted their starting and finishing times. Counter to these expectations, most of the respondents in my study did not report having worked long hours. The largest category of weeks worked were between 35-39 hours (41.9%)\(^{36}\). 25.6 % of weeks worked were between 40 and 44 hours, while only 14 % of the diaries represented a week longer than 45 hours\(^ {37}\) (Table 4.1).

\(^{36}\) The diaries were filled out at various times of the year by 21 respondents. Some respondents filled out more diaries than others. This average includes time spent on breaks and but not time spent on lunch. It is calculated by taking the reported finishing time from the reported starting time and deducting the largest break (assumed to be lunch time) from this total. The average is drawn from diaries with full working weeks only (that is diaries with weeks which were missing days or with half days were excluded). This reduced the number of diaries examined from 69 to 43.

\(^{37}\) In order to make my data comparable to the European Labour Force survey and the Irish Quarterly National Household Survey, these hours did not include lunch breaks as lunch time is excluded from these surveys.
Table 4.1: Hours worked in a week (excluding lunch) Diary Data

<table>
<thead>
<tr>
<th>Weekly Hours worked</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>2</td>
<td>4.7</td>
</tr>
<tr>
<td>30-34</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>35-39</td>
<td>18</td>
<td>41.9</td>
</tr>
<tr>
<td>40-44</td>
<td>11</td>
<td>25.6</td>
</tr>
<tr>
<td>45+</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
</tr>
</tbody>
</table>

N=43 diaries

The average hours worked in a week was just over 40.4 hours, slightly above than the national average in 1999 which was 38\(^{38}\) (Wickham, 2000). As the table below shows 39.5% of the days worked were within half an hour of the traditional eight hour day (Table 4.2), only 11.6% represented a day longer than nine and a half hours. The average length of the working day was almost 7.8 hours.

Table 4.2: Average length of the day (excluding lunch) Diary Data

<table>
<thead>
<tr>
<th>Hours worked*</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00 - 6.90</td>
<td>7</td>
<td>16.3</td>
</tr>
<tr>
<td>7.00 - 7.49</td>
<td>9</td>
<td>20.9</td>
</tr>
<tr>
<td>7.50 - 8.49</td>
<td>17</td>
<td>39.5</td>
</tr>
<tr>
<td>8.50 - 9.00</td>
<td>5</td>
<td>11.6</td>
</tr>
<tr>
<td>9 +</td>
<td>5</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.0</td>
</tr>
</tbody>
</table>

N=43 Diaries

*Note: hour data is recorded in decimal format

The Quarterly National Household Survey data produced by the Irish Central Statistics Office provides information on those working in Nace 72 (computing and computer services). Table 4.3 below shows a breakdown of working hours for the Information Technology sector in Ireland\(^{39}\).

\(^{38}\) This is the national average of all persons in employment and it includes those working part-time hours.

\(^{39}\) Nace 72; Computer and related activities
Table 4.3: Usual Hours Worked for Nace 72, All Persons in Employment and Full-time Employment

<table>
<thead>
<tr>
<th>All persons</th>
<th>Nace 72 (2000 Q1)</th>
<th>All Persons. In Employment (ILO) (2000 Q1)</th>
<th>Full-time Employment (time bands as % of those working over 30 hours a week) (2000 Q1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thousands</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1-9</td>
<td>*</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>10-19</td>
<td>0.3</td>
<td>1.0</td>
<td>5.1</td>
</tr>
<tr>
<td>20-29</td>
<td>0.6</td>
<td>2.0</td>
<td>9.1</td>
</tr>
<tr>
<td>30-34</td>
<td>*</td>
<td>3.2</td>
<td>4.5</td>
</tr>
<tr>
<td>35-39</td>
<td>11.9</td>
<td>39.7</td>
<td>29.7</td>
</tr>
<tr>
<td>40-44</td>
<td>9.6</td>
<td>32.0</td>
<td>38.3</td>
</tr>
<tr>
<td>45 &amp; over</td>
<td>4.9</td>
<td>16.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Hours vary</td>
<td>2.6</td>
<td>8.7</td>
<td>16.0</td>
</tr>
<tr>
<td>Not stated</td>
<td>*</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.0</td>
<td>99.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Average hours per week</td>
<td>40.6</td>
<td></td>
<td>38.0</td>
</tr>
</tbody>
</table>

*sample size is too small for estimation
All persons in Employment includes persons aged 15 years and over in employment (ILO)
QNHS 2000Q1 (special extraction) obtained from the Central Statistics Office
www.cso.ie

As in my diaries, the largest category reported is in the 35-39 group. The QNHS reported 39.7% people working in this category, while in the diaries 41.9% of days worked were within this category (Table 4.1 above).
The QNHS data diverges from the diaries in the longer hours category. They report that 48.3% work longer than a 40 hour week while the diaries record that 39.6% of weeks are longer than a 40 hour week. The QNHS data is gathered from the answer to the question ‘How many hours do you usually work at this job, including regular overtime, but excluding meal breaks?’ Gershuny comparing such self-report questionnaires
with time-diary results found that at the higher ends (longer hours) the questionnaires diverged from the time data indicating that those working longer hours over-estimated the number of hours they worked. Unfortunately Ireland is not taking part in the Multinational Time Use Study which is collecting time-diary data so more precise estimates of working hours are not available.

However, setting aside the possibility that the higher ends may be exaggerated, the QNHS data shows that the numbers working over 40 hours are almost equally balanced by the numbers working less than 40 hours. Table 4.3 also shows usual working hours for all full-time employees in Ireland in 2000. It highlights that there are more people in the general population working over 45 hours than there are among computer workers (22.3% as opposed to 16.3%).

The data for all persons in employment includes all who have worked at least one hour. The data for Nace 72 contains both full-time and part-time employees, but as Table 4.3 shows, less than 3% of employees work less than a 35 hours week. Therefore as the numbers of part-time workers is so low it is more appropriate to compare this data with data for full-time employees in the general population, rather than with data which includes part-time workers. Looking at the time bands for full-time employment (defined as those who work more than 30 hours) it can be seen that the percentage of the general population working between 35 and 44 hours is almost equal to the percentage of computer workers working between 35 and 44 hours (72.8% as opposed to 71.7%). Again it is in the long hours group, those greater than 45 hours, where a difference is evident.

However contrary to expectations, the software sector does not have a higher percentage of workers working more than 45 hours than found in the general population (16.3% are found in Nace 72, as opposed to 22.43 of those working full-time in the
general population). The European Labour Force Survey reports that in 1999 34% of those in Nace 72 worked longer than 45 hours in the UK. This is double the percentage of those working in the same sector in Ireland. It is clear that Irish computer workers are not following the patterns set by their counterparts in the UK in respect of long hours. This therefore is a sector in which long hours are prevalent but not dominant, long hours exist but are certainly not the norm. Furthermore the hours worked in the sector are not greater than those worked by the general Irish population.

Both the diary results and the QNHS results indicate that the perception of a long hours culture is only reality for some people working within the sector. What was found in my sample seemed to be also found in the workplaces of many of my interviewees. Many respondents reported that there were individuals within their workplaces, notable exceptions, who worked long hours. This raises the question, what distinguishes one group from another. Why is it that some work over 45 hours a week, while others work less than 40?

In Table 4.4 below we can see the hours worked in a week for those reporting the largest hours. Among this group 10 to 15 hours days were noted, with finishing times ranging from 10 in the evening to 1.30 in the morning. The first four people in Table 4.4 below were all working in the same workplace, Cobh, which is a large Irish owned software development company. Two were senior software engineers who had been with the company a number of years. One was a marketing executive who had joined more recently. Finally, the only woman in the group was a recent

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40 However, in reference to the UK, Smith notes that although a high share of the workforce work long hours, a higher share work relatively normal full-time hours between 37 and 40 hours per week. In this respect the Irish software workers are more similar to their overseas counterparts Smith, M. (2001). Information Technologies in the United Kingdom. New Forms of Employment and Working Time in the Service Economy (NESY): country case studies conducted in five service sectors, European Trade Union Institute (ETUI): 50-59.
computer science graduate. The work was project based, though the marketing executive frequently travelled to clients’ workplaces. Of the others Johnny and Nick both moved jobs in the course of the study, leaving more established companies to join start-ups. Johnny works in Marketing while Nick is a developer. With their moves their hours increased. Susanna, a technical writer, worked in the same company as some of the shorter hours workers. However unlike the others, she had supervisory responsibilities. All the long hours workers worked in Irish companies. All were aged in their twenties or early thirties, cohabiting or married and did not have children.

Table 4.4: Longer Hours Group: Hours worked in a week (excluding lunch) Diary Data

<table>
<thead>
<tr>
<th>NAME</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>James</td>
<td>56.96</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Conor</td>
<td>52.08</td>
<td>2</td>
<td>14.47</td>
</tr>
<tr>
<td>Mike</td>
<td>49.00</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Catherine</td>
<td>46.50</td>
<td>2</td>
<td>2.71</td>
</tr>
<tr>
<td>Johnny</td>
<td>44.00</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Susanna</td>
<td>43.71</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Nick</td>
<td>43.70</td>
<td>2</td>
<td>3.27</td>
</tr>
<tr>
<td>Total</td>
<td>43.70</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

N=number of diaries

In contrast, in Table 4.5 below, the hours worked in a week by the shorter hours workers are noted.
Table 4.5: Shorter Hours Group: Hours worked in a week (excluding lunch) Diary Data

<table>
<thead>
<tr>
<th>NAME</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin</td>
<td>40.22</td>
<td>3</td>
<td>.80</td>
</tr>
<tr>
<td>Linda</td>
<td>40.17</td>
<td>3</td>
<td>2.02</td>
</tr>
<tr>
<td>Even</td>
<td>39.07</td>
<td>2</td>
<td>6.65</td>
</tr>
<tr>
<td>Joe</td>
<td>38.51</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mark</td>
<td>38.33</td>
<td>1</td>
<td>.</td>
</tr>
<tr>
<td>Ewen</td>
<td>38.17</td>
<td>3</td>
<td>1.23</td>
</tr>
<tr>
<td>Aoife</td>
<td>38.05</td>
<td>3</td>
<td>.24</td>
</tr>
<tr>
<td>Sean</td>
<td>37.87</td>
<td>2</td>
<td>7.67</td>
</tr>
<tr>
<td>Helen</td>
<td>37.26</td>
<td>3</td>
<td>1.94</td>
</tr>
<tr>
<td>Karl</td>
<td>36.71</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dermot</td>
<td>36.53</td>
<td>2</td>
<td>1.10</td>
</tr>
<tr>
<td>Karl</td>
<td>33.83</td>
<td>3</td>
<td>.76</td>
</tr>
<tr>
<td>Fergal</td>
<td>32.78</td>
<td>3</td>
<td>3.49</td>
</tr>
<tr>
<td>Mary</td>
<td>32.63</td>
<td>2</td>
<td>4.92</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

N=number of diaries

There was considerable variation among the shorter hours workers; some worked for large multinationals, both Irish owned and international, some worked for small start-ups. Some were recent graduates, some had risen to team lead positions. All occupations studied were represented. Like the longer hours workers all were aged in their twenties or early thirties, most were cohabiting or married and none had children. At first glance there seems to be much similarity between the two groups, how then can the differences in working hours be accounted for?

2. ORGANISATIONAL EXPLANATIONS

Plantega and Remery (Plantega and Remery 2002) outline three areas which influence the organisation of working time in the Information Technology sector; the nature of the service being provided, the nature of the workforce and the flexibility requirements of the sector. The boundaries between these three areas are not fixed, for example there is a relationship between the nature of the service being done and the flexibility requirements of that service. Accepting that there is a certain fluidity between these categories, these categorisations serve as

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useful templates with which to examine the working hours in the Information Technology sector.

**Nature of the Service Provided**

Plantenga and Remery distinguish between two ways in which service is delivered. In one, employees are posted to other workplaces, their labour is contracted out by their employer to a third party. This third party, in whose workplace they are located, is billed by the hour. In these circumstances, with each extra hour coming with a cost, there is less likelihood that long hours will be worked. Two of the shorter hours workers were in an employment relationship similar to this\(^{41}\). In contrast other employees work in house on projects and are not paid overtime; the majority of the participants in the study were in this type of employment relationship. Another type of work process was noted. One participant in the project was part of a global team providing customer support. She had conference calls twice a day, at 9.00 taking over from those working in Asia and at 4.30 handing over to those in the US. Bound by these two fixed points in the day, her working hours were extremely regular.

The size of the company is also important, as larger companies will have more resources to draw on, on occasions when the reality of the work process is at odds with the abstract nature of planning processes. As mentioned earlier two of the long hours workers were in start-ups, but so also were five of the shorter hours workers. When looking at the time diaries it was found that the difference in hours worked between large and small companies is not great. The average hours worked for those working in large companies\(^{42}\) was greater than those working in smaller companies (40.4 hours to 38.2 hours). This was an unexpected result, as the literature often places the frontier culture of small emerging companies at the centre of

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\(^{41}\) They were Karl with an average working time of 36.7 hours and Joe with an average working time of 38.5 hours.

\(^{42}\) Large meaning greater than 100 employees
explanations of hours worked. However when Cobh, the long hours company mentioned above, is excluded from the analysis, the average for large companies drops to 37.5, resulting in less than an hour’s difference between large and small companies. Company size alone does not seem to be of importance in accounting for working hours.

**Nature of the workforce**

Plantenga and Remery also highlight that many within the sector are highly intrinsically motivated. For some there is no clear division between work and play as the work they do is interesting and engaging (this issue will be returned to later in the chapter). Furthermore, the majority of those working in the sector are single and young. In Ireland 72% are below the age of 35. It was part of the company folklore in one of the companies examined that the CEO had expressed a preference for employing young single men as they were more likely to be willing to work longer hours. However in the diaries no difference was found in the average hours worked between men and women with both working on average 39.5 hours a week, and as we have seen above, both genders were present in both the long hours and the shorter hours groups. Long hours culture, particularly among those in management, has been identified as a source of disadvantage to women where they have more responsibility for domestic labour (Rutherford 2001). This was not evident in this study as none of the participants were in senior management. However in another study which interviewed women at middle management level the expectation that long hours would be worked was identified by the

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43 65% identified themselves as single, 31.7 as married, and 2.7% as other. Note however that the question asked make no allowance for unmarried cohabitating couples. Many of the participants in this research project would have fallen into this category. QNHS 2001 Q2, special extraction for Nace 72, obtained by the Central Statistics Office. www.cso.ie

44 QNHS 2001 Q2, special extraction for Nace 72, obtained by the Central Statistics Office. www.cso.ie
interviewees as key barrier to promotional opportunities (Greco 2003)

Among the different occupations, the mean hours for the Marketing/Purchasing category was 46.2 and for those in the Engineer category were 39.2. The numbers in this sample are very small and thus the influence of Conor who as we saw above works very long hours can greatly affect the average of those working in this category. If his data is excluded from the analysis, the difference between the two groups closes as the mean for those in Marketing/Purchasing falls to 40 hours a week. The average for technical writers was lower at over 36.7. Of those working in marketing, 22% of the diaries represented long hours weeks (over 45 hours). Among the engineers 14.3% of the diaries received fell into this category, and among the technical writers one diary (16.7% of the total) described a working period of more than 45 hours a week. These results indicate there does not seem to be a correlation between hours worked and occupation, except to indicate that technical writers work shorter hours than other occupations. Both the long hours group and the short hours group contained representative of all occupations.

Above it was noted that one of the long hours workers, Susanna was in a supervisory role. Just over an hours difference was found in the working hours for people who supervise others were compared with those who do not (38.6 for supervisors, 39.8 for the rest). Surprisingly those who do not supervise work (very slightly) longer hours. Like company size above, the nature of the workforce does not seem to explain variation in working hours.

Company ownership was also considered, and once more the effect of Cobh on the figures was noted. The hours worked in Irish companies were greater than those working in non-Irish companies (40.5 hours to 37.8 hours). However if Cobh is
excluded in more analysis, the difference disappears, with 37.8 for both groups.

The effect of Cobh on the means led me to look in closer detail at the hours worked in each company. Table 4.6 shows the average hours worked in each company.

Table 4.6: Average Hours worked in a week (excluding lunch) Diary Data

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobh</td>
<td>50.5</td>
<td>6</td>
<td>7.72</td>
</tr>
<tr>
<td>Net-work</td>
<td>44.0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Anois</td>
<td>43.7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lull</td>
<td>42.0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Render</td>
<td>41.2</td>
<td>3</td>
<td>4.13</td>
</tr>
<tr>
<td>Harp</td>
<td>40.2</td>
<td>3</td>
<td>.80</td>
</tr>
<tr>
<td>Snug</td>
<td>39.2</td>
<td>2</td>
<td>1.67</td>
</tr>
<tr>
<td>Radar</td>
<td>38.5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Quill</td>
<td>38.3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Lucid</td>
<td>38.0</td>
<td>3</td>
<td>.24</td>
</tr>
<tr>
<td>Felix</td>
<td>36.7</td>
<td>6</td>
<td>4.79</td>
</tr>
<tr>
<td>Webco</td>
<td>36.7</td>
<td>4</td>
<td>4.72</td>
</tr>
<tr>
<td>Mindset</td>
<td>36.7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Dab</td>
<td>36.5</td>
<td>2</td>
<td>1.10</td>
</tr>
<tr>
<td>Oblige</td>
<td>35.7</td>
<td>4</td>
<td>3.82</td>
</tr>
<tr>
<td>Delf</td>
<td>32.7</td>
<td>3</td>
<td>3.49</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>42</td>
<td></td>
</tr>
</tbody>
</table>

N=42 diaries

Of all the factors discussed above (occupation, gender, company size, company) the largest difference between working hours can be found by looking at the difference between different companies, over 17 hours a week separates the longest hours company from the shortest hours company.

The results of the time diaries offer an indication that something within the company walls influences the hours worked by employees. Alone the time diaries are inconclusive, the sample size is not large enough to do more than provide a guide as to which areas of enquiry may be fruitful. However, they suggest that the nature of the company one belongs to is a more important predictor of the hours worked than other variables (gender, occupation, company size or ownership).
Flexibility requirements

Plantega and Remery argue that the Information Technology industry is strongly responsive to changes in demand for their products and this impacts on how the work is organised. In traditional Fordist organisations the working hours are determined by the hours agreed in the contract. They note that while 'the contractual full-time working week still structures the number of hours that have to be worked ... due to the rise of flexible working hours, a full-time day is no longer described in terms of start and finishing times' (Plantega and Remery 2002: 476). The decreasing relevance of the contract in determining working hours reflects an increased level of control that the participants had over their working hours. Within certain boundaries most of the participants could choose their working hours.

In these workplaces, with unity of conception and execution, hierarchical management is of limited effect. As was mentioned in chapter one, the production of knowledge is an intangible process which makes it difficult to impose traditional hierarchical methods of management on knowledge industries. Those doing the work probably know more about the field than those supervising them. Even in situations where manager and worker both understand the particular area, neither can forecast how long it will take to solve a particular problem, whether that be writing a new program or debugging a program. Management must ensure somehow that employees are working to their maximum ability without having a clear notion how that ability translates into hours and minutes, into timeslots on a schedule (Causer and Jones 1996). One solution to the problem is to manipulate the culture of the workplace. Burawoy described this as the 'manufacturing of consent'. Causer and Jones (1996)

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45 Some of these boundaries are explicitly defined in the contract, such as, they would have to be at work between certain core hours such as between 10 in the morning and 5 in the evening. In other instances as will be described the boundaries were more informal.
describe how the male dominated nature of computing recreates the 'collegial' culture of the universities. Control does not come from the top down, as in traditional workplaces, but from the side, from one's peers, co-workers, team-mates or customers. In these instances, the employee has far more control over their work process than those working in more traditional assembly line regimes, more than those in the 'MacDonaldlised' industries. They have control, but their commitment to the workplace is mobilised such that this control operates in management's interests. The commitment we are interested in here is the commitment to the time of the organisation, an acceptance of the temporal framework of organisational culture.

The creation of a cultural of commitment is often described as something that is done indirectly, however direct methods of control are often also used. Participants spoke of being directly warned that they needed to come into work earlier than they had been. One of the long hours workers was told that she needed to work at the weekend, and that she should remember that her review was coming up soon. Here promotional opportunities and career opportunities are directly linked to working long hours. A number of indirect strategies were also evident.

Plantega and Remy note that 'overtime is the classic flexibility instrument'. They found, as I did, that overtime is seen as 'inherent to the job and is not compensated' (Plantega and Remy 2002: 476). Most of the participants' contracts specified that overtime may be required and is not paid for. The contract codifies an essential element of the organisation's temporal framework, the acceptance that work time has priority over non work time. However the rhetoric that accompanies this framework sidelines issues of time, bringing the task alone to the fore; it is not important that one stays late, it is important that the work gets done.

Plantenga and Remery identify accuracy of project planning as an important determinant in how long a working day will be.
They note that the workload can be increased by either employing insufficient people to complete the work within 'normal hours' or by devising plans on the assumption that long hours will be worked. Participants in this project noted both practices. Much has been written about the use of teams as a controlling mechanism in workplaces with a flattened hierarchy. For some respondents it was the gaze of their co-workers rather than the gaze of management that brought attention to their working time:

... if you come into work at half 10 and there's somebody who's been there since 9 ... you always get that feeling that they resent you because 'I have to get up in the morning so why didn't you get up'. I mean it hasn't cost them anything but sometimes people generally do feel resentful. It's one of the things I don't like about working with other people I guess or even not having my own office.

(Joe 2: 120)

38.5 mean working hours weekly (excluding lunch)

Participants in both groups described co-workers complaining about them arriving into work late or leaving too early (or if not complaining directly, teasing or exhibiting surprise). Some of the shorter hours workers were in teams which contained members who were also the customer for the product being produced. One participant spoke of the pressure that came from customers expecting the product to be modified as it was produced, creating more work and more pressure to work longer.

Finally pressure to work long hours comes from the assumption that long hours are the expected norm, and these assumptions came from within and without the workplace. Within the workplace, many spoke of the exceptional individuals who worked late into the night. These individuals act as Stakhanovites, binding the image of the high-tech workplace with that of the long hours worker. It is these isolated

46 Stakhanovites were workers in the Soviet Union who regularly surpassed production quotas and were specially honoured and rewarded.
individuals who are the object of journalistic articles and popular commentary. For example, at the top of this chapter I described the story of the programmer who worked late, alone in his office, and being a nudist he worked naked. This individual provided both the title to a book on software workers in Silicon Valley and its defining metaphor. Yet the author did not tell the story of the nudist co-workers who had all left the office, leaving our nudist alone. The exception is highlighted, the majority disappear.

3. ORIENTATIONS TO WORK
While there is not an automatic link between the high technology sector and long hours, the diaries and interviews do indicate that long hours are worked by some within the sector, and not by others. The explanations offered thus far have concentrated on structural constraints. Elias argued that constraint and resources work together to form the general framework within which people operate (Elias 1992). The concept of orientations to working time can be a useful tool in understanding why the various factors outlined above do not explain all variation in working time. As we have seen in chapter one, orientations to working time are ways of thinking about working time which influence how the working day is structured. With a task orientation the orientation is derived from the 'task'. The working day is as long as it takes to complete the task, as long as it takes to plough the field etc. With clock orientation the orientation is derived from the 'clock'. The length of the working day is determined by the time at which one clocks in and the time at which one clocks out and this is set by contracts. How then, do we describe the orientation that we have in these workplaces?

Traditionally the structure of the working day has been determined by the labour contract. Though the respondents are making choices about their time, these choices still operate
within the parameters set by the labour contract. What is
different however is that there is a blurring of the edges and
increase in variability. A high level of variation in the length of
the working day was found (mean variation is 2.44 hours), there
was also considerable variation in starting and finishing times.
Clearly the clock is no longer as important. One does not clock
in and out. However it has not disappeared totally. One must
still work every day, regardless of whether there are tasks to be
completed or not. One must still turn up in the morning and
leave in the evening, though the timing of the start and the
finish are not clearly defined. The contract still exists yet it is
often ignored. As the quotes below suggests, this is an
understanding that explicitly rejects clock based discipline as
being both unfair and illogical:

Some managers in our place, as long as your work is
getting done, they do not really care what hours you
are there, what hours you are not there as long as
you are there when they need you and your work is
getting done on time. They don’t care if they look at
your seat at nine in the morning and you’re not there.
But our manager we have now, is a real stickler for
time keeping.
He wants to see everyone at their desk working by
half past nine and will actually walk around the
department and clock who’s not there.
And he’ll do another walk around at six and clock
and see who came in at ten and if they go home at
half five.
(Susanna 1: 80-84)
43.72 mean working hours (excluding lunch)

Here the particular manager is seen to be the exception to the
norm. He is unusual in that he monitors working hours; he is
more concerned with ensuring that the correct times are clocked
up than other managers who are only concerned with whether
the work is getting done. The respondent rejected the manager’s
attempts to impose a time-discipline, as she felt she could get
another job elsewhere, and that her working hours were
reasonable.
The task is increasingly important. One is expected to stay in work until the task is completed. Yet, again it is not a matter of a switch back to task orientation. Work has not become entirely task-based. Though tasks and deadlines increase the working day, this happens on an occasional basis and to a sub-section of the workforce. The task is not supremely important, some still finish work after counting eight hours. The task can and sometimes is ignored.

This then is an orientation that has elements of clock and elements of task. It is neither all nor nothing, one nor the other. Perhaps a hint can be found in the phrases used in the interviews to describe working time, phrases such as ‘normal’, ‘fair’, ‘natural’, ‘reasonable’, ‘expected’, ‘average’ and ‘standard’ are used to describe certain types of working time. The phrases ‘ludicrous’ and ‘unreasonable’ to describe other types of working time. Here perhaps we have a ‘normal-time’ orientation that is an orientation where working time is defined by expectations of what is ‘normal’ or ‘reasonable’.

Expectations of what is normal have always played an important part in debates on working time. The clock orientation of the eight hour day movement drew legitimacy for its claims by asserting the importance of non-working time over working time. However they aimed their claims at legitimacy towards establishing a clock. This new orientation does not see the clock as the outcome of these claims, the participants do not want a fixed measure of their starting and finishing times, rather they want a flexibility which fits the time of work into their lives.

In these workplaces we can see that working time orientation in these workplaces revolves around highly contested definitions of what is considered to be ‘normal’. Ideas about what is expected, what is reasonable or fair with respect to working time come from various sources; from the examples of managers, the relationships with peers, the institutional definitions of the
working day and more than likely the understandings of what is socially acceptable.

Within this very contested type of orientation different spheres are drawn on by different groups to legitimise what they consider to be normal. So as we have seen, companies may draw on the task, the need for the project to meet a deadline, so define long working hours as normal. Alternatively individuals may draw on the clock, the time they are contracted to work, to define the eight hour day as normal. Some people determine their finishing times by counting back from their starting times. They get legitimacy for leaving at the time they do from their contract, that is from the contracted expectation that they work an eight hour day. Often if they come in earlier, it is not in response to management’s desires that they arrive on time, but so they can legitimately leave earlier. Legitimacy for leaving work can also come from the amount of work done. Working time is monitored time over days and weeks. Where people work shorter days it is because they have consciously decided to do so. They get legitimacy from this decision to work shorter hours from the longer hours they worked earlier. Others change the time at which they leave work or the duration of their working day because they decide that non-working time is of more importance than work time. For example, some women draw on child-caring responsibilities to shorten their working hours. This gives legitimacy to their claims for a shortened working day.

An obvious limitation of the diary methodology is that the diaries were conducted at different points in time. As work in the Information Technology sector is rhythmic with periods of intense work followed by periods of calm ((Kunda 1992); (O’Riain 2000)) it is possible, for example, that the diaries of the long hours workers captured only these intense periods, thus distorting the picture of their work process. The interview material however lent support to the data obtained in the diaries. All but one of the long hours workers felt they worked
long hours, and all but two of the short hours workers felt they did not work long hours. In the next section I draw further on this interview material in order to examine the interplay between company culture and orientations by first looking at the example of the long-hours workers in my study, and then consider the remaining workers in my study; the majority who did not work long hours. Here I am looking at alternative responses to working hours, response that limit rather than extend the working day. We see examples of a company culture which is constraining. However culture is not a static entity, it must be continually created and re-created. It is not totalising, there are spaces within which some participants operated differently. We have seen how the autonomy of the individual and of the work team operates alongside a framework set by organisational management. As we will see later, temporal autonomy operates sometimes inside and sometimes outside this of framework. In using the phrases inside and outside I am moving away from a conception of workers’ action as defined by management structure, as either resisting or acquiescing. Though both these responses can be seen, we can also see temporal autonomy acting in a true autonomous fashion, independent of the organisational frameworks and rhetoric; leading such that organisational structures must follow.

4. THE LONGER HOURS GROUP

First, we look at the relationship between project organisation and working hours in Cobh, the long hours company. Many participants used the phrase ‘as long as the work gets done’ to explain how they were able to control their own working time as long as they completed the tasks they were given. In the quote below the respondent first emphatically asserts his control over his own working time and then explains how ‘as long as the work gets done’, the second half of the temporal bargain, can be manipulated to create a long hours culture:
A. I one hundred percent control my own work pace although pressure is applied, but not through the normal mechanisms that pressures would be applied. It's just expected, it's expected that you'll stay to a minimum of six at clock at night, nobody tells you, in fact if I left at three o'clock some day nobody would say it, that's because they know you are getting your ... work done.

Q. How do you know it's expected?

A. The volume of work which is given to you and everyone performs to. If you compare your work load to your direct manager's work load, everybody performs to a minimum of 50 to a maximum of 90 hours a week so there is nobody left out of the equation, it's very much lead by example.

(Conor 1: 52-56)

52.08 mean working hours weekly (excluding lunch)

In assembly line organisations the pace of work is dictated by the speed of the assembly line. There is no assembly line to speed up in these workplaces, instead deadlines, shipping dates and management plans can increase the amount of work that needs to be done. In this quote we can see that the expectation is not to work long hours, but to finish one's work. One's work however must be completed within certain deadlines. Above we see that there is an expectation that long hours will be worked by everyone within the company. This expectation is met by 'the volume of work' and the volume of work is determined by the time frames allocated in the project planning process. In other workplaces participants spoke of instances of working late as a failure of the planning process. The quote below is from Susanna, one of the long hours workers. Within her company she feels, and other workers report, that there is no expectation that one should work late. With technical writing, there is an expectation that it is possible to plan the work process. However there are exceptions to this and at these exceptional times, it is necessary to stay late:

We're not supposed to work late. That is the way it is structured. They figure that if you work late then there is a problem with the way you're doing things. If you have to stay late on a regular basis that means
either somebody else is not doing their work properly or they need to hire more people or there is a problem, basically it means you have too much work to do and they'll take some of it off you. That's the way they figure it.

However, in my case, it is a little bit different. I have a boss, a manager who knows for a fact that there were at least two people on my six person team who were less than useless and I had to do a lot of extra work, all these edits, this wasn't on my work, this was somebody else's. So I personally get a lot of allowances for that and I personally get to do a lot of pissing about, taking half days and that kind of thing and they don't go on my holiday sheet. But as a general rule you don't get paid for overtime because you're not expected to work overtime.

(Susanna 1: 199-205)
43.71 mean working hours (excluding lunch)

Her inclusion in the long hours group can therefore be accounted for by an 'exceptional' demand of the work process (the issue of exceptional work time will be discussed further in chapter five). In this respect her experiences are perhaps different from those described in Cobh above, for whom long hours are seen as the norm and a sense of crisis seems to be continuous. The inability of the planning process to deliver a forty hour week seems to have more to do with management design than any intrinsic aspect of the work process in the knowledge industry. The participants in Cobh, as illustrated in the following quotes, were very critical of this approach:

A. I think people can work a 50 hour week but that's going to have a long term effect. I don't think a 50 hour week is feasible for very long. I know I worked (them) and the older you get the less feasible it is and the more responsibilities you have outside of work ... I've worked effectively the last four years of my life in excess of 50 hours a week. The first year of that was 90 hour weeks with I suppose you could say with a lot of adverse affects. So ... it's possible for an individual to do. It's infeasible for a company to expect the bulk of its employees to do it.

(Conor 2: 54)
52.08 mean working hours weekly (excluding lunch)
Q. And when you say people are working harder than they should have to, what or how would you define that?

A. Well a properly run company doesn't depend on people working 60 hours a week. A properly run company is a company in which people work 48 hours a week and the work gets done. And if there is too much work to be done either you cut back on work or you increase the number of people. ... There are people feeling like they are on this permanent - not death march cause things actually get done - but they are in a permanent state of crisis avoidance and although that has gone to a certain extent, there is still that feeling that people could be working longer hours. (Mike 3: 21-27)

49 mean working hours weekly (excluding lunch)

The two quotes above illustrate that both feel that the company is forcing its employees through its planning mechanism to work longer than they feel is reasonable. However, it also shows very different estimations of what is 'normal' or 'reasonable' with respect to working hours. For Conor a 50 hour week is evidence of bad planning and thus unacceptable, while for Mike a 48 hour week falls within his definition of 'a properly run company' and hence is acceptable.

Conor also refers to the much longer hours he worked when the company was in its initial stage of growth. In another quotation he refers to this phase saying 'when I first joined Cobh I knew definitely that I was putting in a lot a work at the start, during the start up phase, and that was not going to continue for ever' (Conor 2: 61-64). In terms of orientations to working time, those working in the long hours companies tended to compare the hours which they worked now with those they worked in the past and/or those of other people in the company. This meant that while they personally often referred to the negative effect of working hours on their lives, they did not see them as unreasonable when compared to what was normal within the company.
Above Conor says that nobody would say anything to him if he left earlier. In the following quotes we see that, while this might be true, his co-worker finds it impossible to leave any earlier even when the work has slackened off. Here we have an example of autonomy operating under management gaze. 'As long as you get your work done' has been conflated with 'as long as you are seen to be doing your work'. The respondent is conscious that management is noting his working hours and it makes him uneasy. The flattened hierarchies of the organisation and the physical openness of the office open up the work process to increased surveillance:

You can tell if someone is doing work or not. It's always clear. It is a very flat hierarchy ... even if you've just started in the company you are reporting to your line manager, whose reporting to the head of development who's reporting to the head of engineering, and that's it and they are all in the same office and they talk to each other all the time. In practice it is very difficult to get away with not doing work, coming in late and leaving at six or seven, people will see that. (James 1: 51-5)

54.07 mean hours work (excluding lunch)

A. I've actually found myself, the more bored I am the more likely I am to come late and leave after say 6 hours or something, which is starting to, I think could be a bit risky but there you go.
Q. Why do you say that it's starting to be a bit risky, what's giving you that impression?
A. Well I'm not sure how obvious this is to higher levels of management and stuff, generally it's not a good idea, to a certain extent I can get away with it because of all the long hours I've put in, in the past but then of course you don't want to be giving a bad impression and stuff like that
Q. Would you feel uncomfortable if you left at half five or six?
A. Oh yeah
Q. Even though that's when you're meant to?
A. Yeah absolutely yeah, even if I start at nine I would not usually leave at half five or six, unless you were heading straight off down the pub because there was some special event.

(James 2: 47-51)

56.96 mean working hours weekly (excluding lunch)

In the second quotation James speaks of wanting to leave work earlier as he becomes more bored. Earlier we noted that Plantaga and Remery cited the intrinsic motivation of Information Technology workers as a factor which influenced working hours. This issue will be discussed more fully in chapter six, for the moment however, it can be noted that here is the flip side of the highly intrinsically motivated employee. When engagement and interest in the puzzle of work falters so does the desire to remain in the workplace. As tasks change, enjoyment of work ebbs and flows, and so explanations of working hours cannot be derive solely from the intrinsic motivations of Information Technology employees as those motivations are not stable. Though the boundaries between work and leisure may blur, at the end of the day, what differs work from leisure is that leisure is optional while work is not. Work must be completed whether one is in ‘the mood’ or not. Indeed unfulfilled expectations of engaged work can lead to de-motivation, attempts to withdraw from the work process as we can see above, and ultimately to withdrawal from the workplace. The failure of work to meet the promise of intellectual stimulation can as much be an explanation of short hours as can its success at intellectual engagement can provide an explanation of long hours. Neither aspect of the work, interest nor boredom, is fixed. In the absence of intrinsic motivation, as James’ second quote indicates, it is managements gaze that keep him at his desk. In both the quotes he indicates that the autonomy he has over his work place is more rhetoric than reality; ‘in practice it is very difficult to get away with doing no work’ ‘to a certain extent I can get away with it because of all the long hours but ...’. Autonomy implies that periods of long hours worked by necessity will be
balanced by shorter hours when the work load lightens. In James’ second quote, he shows that the time equation is not this straightforward. If he does claim back his extra hours, he might be giving a ‘bad impression’. In the final quote he explains that he would not feel comfortable leaving at his normal working time, unless this was to a work-organised social event. As we will see in the next chapter, these events represent the colonisation of non-work places with working time47. These instances, in which autonomy over one’s working time is exercised in accordance with the company’s temporal framework, expose the dominance of the company’s temporal culture. Opposition to the hours asked of them, does not necessarily result in opposition to the temporal culture of the organisation. A junior programmer when talking about her finishing hours, said:

Yeah well friends would say I get back very late. They would say that because ... probably the average time I leave work is between 7 and half 7. So I get back maybe a quarter past eight and they’d be like ‘God are you only getting back from work now?’ I don’t have a problem with it because I choose to work those hours. If I could get up early in the mornings I would.

(Catherine 2: 142)

46.50 mean working hours weekly (excluding lunch)

She describes the bargain she has made over her working time, she is happy that she works later in exchange for starting later. However within this workplace the bargain does not end there. Her diaries show that on occasion she works until ten and eleven. As the bargain operates with a company with a long hours temporal culture, added to it is a prioritising of working time such that on occasion the balance becomes tipped in favour of work time (and for the reasons cited above, these imbalances are not evened out, she does not work less on the days following a long night in the workplace). In exchange for the temporal

47 The concept of colonisation draws from Habermas’s description of the colonisation of the lifeworld by the system. The life-world represents the world of interaction, communication and human relationships, while the system represents the sphere of instrumental reason. Habermas,
flexibility she wants, she accepts the temporal flexibility her organisation wants.

Yet even within the long hours workplace the temporal culture of the organisation is not stable and at times is challenged. The following quote indicates that an artificial sense of panic is created in order to heighten commitment to the workplace. This temporal culture is maintained by creating a sense of urgency and hurry:

Q. You've been working now for four years, do you find yourself slowing down?
A. Not really actually, I was expecting to be slowing down more than I actually have been but the management are very good at keeping up the sense of crisis.
Q. And what about other people you're working with, do you see a difference in work?
A. I think everyone is working slightly less hard than they did and so am I really, I mean I was in at the weekend, a couple of weekends ago for a couple of hours because I was getting stuff together for a trip that I was about to do and there was no one else in the office and even up till kind of March this year if you were in on the weekend there'd always be two or three people in the office and sometimes over half the people would be there, so the panic has subsided a little.

(Mike 2: 112-116)

49.00 mean working hours weekly (excluding lunch)

In these quotes there is also a sense that over time there is a growing cynicism about the management of the culture. There is a tension between the individual's autonomy and the temporal demands of the company. Mike notices, that though he was in at the weekend, there were fewer other people working at the weekend. Further tensions are evident in the following quotes. James feels he is letting his workmates down if he leaves at a 'sensible time'. He links this to his experience of working in college, of being used to working long hours and of being in the

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company from its early days when in terms of working culture it was similar to his college experiences. These experiences have been noted in other workplaces. What the quote also highlights is that younger members of the workforce are resistant to that culture and do not share the view of the workplace as one where all levels of the hierarchy must co-operate together on an equal basis:

Q. And that feeling (that he shouldn't leave early), where do you think that comes from?
A. Catholic guilt, I don't know, it comes from I suppose old days at Cobh where basically if you were leaving at 6 your work mates would still be there, a large part of it is that a lot of your work mates are still there, it's still the same old crowd that you used to work with until all hours. So the kids will leave early or leave at 1 mean sensible times and the rest of us generally stay on.
Q. When you say the kids do you mean the people who have just come on recently?
A. Yeah
Q. So does that mean that people who have just come on recently are all likely to work traditional working hours?
A. Yeah, as far as I'm aware, it's pretty hard to tell but generally, some of them are actually pretty rigorous about it. Like some of them will say ... there was one case where we were shipping a product recently, fortunately not one that I was on but I always used to be on in the past and it was absolutely critical, like absolutely critical, we had a really big contract riding on getting it out on a particular date and shipping it off by UPS on a stamp date. So the guy running the projects basically told everyone you have to work until 3 am the previous night to get it done, which is sort of standard operating practice for emergency deadlines in the software industry and there was an enormous amount of bitching about it the next day and especially around lunch time. In fact I found myself getting into a fairly heated argument with a couple of them, defending their boss whom I've worked with for five years, which I guess we both agreed to defuse by simply going fair enough we disagree on this. But I was trying to defend him by saying it's not really his fault, it's the company's fault that they simply didn't allocate enough resources for this project and then they got themselves into a position where they were contracted to do it at a
particular time that they could not deliver. But all of that is very abstract and doesn’t compare with working until 3 AM the previous night. The thing is I don’t see that as particularly bizarre whereas of course many of them would. I think part of it as well is we get people in from college directly, not having done a Masters and not having any of that sort of, actually I’m not sure what people really do on Masters whether they all work until all hours and work from 6 until 6 as I used to, but when you come straight in out of college you’re used to college hours.

(James 2: 52-59)

56.96 mean working hours weekly (excluding lunch)

Here the programmer defends his friend, a manager, from angry junior staff and argues that it is necessary to put in the hours in order to meet a deadline. In contrast the junior staff have less commitment to the workplace, whether the deadline is met is the company’s concern not theirs. The junior staff have joined companies which are now quite large bureaucracies. Informal relationships between management and worker have been replaced by formal hierarchies and procedures, and commitment to the workplace has been undermined.

Even the long hours workers, as illustrated by Conor below, were critical of the adverse effects long hours was having on their lives:

Q. A while ago you mentioned the adverse affects of working long hours, what would they be?
A. Lack of enthusiasm. The longer hours you work the less enthusiasm you have. You can only maintain your concentration and enthusiasm on a particular area for a certain length of time. The longer you work at it the more boring it effectively gets. Also long hours can have an adverse affect on any relationship you have with anybody because it impinges upon your social life ... If you work a 10 hour day it’s really tough ... to come and do that hour and a half it takes a day to just keep your shit together. Like it takes half an hour to cook, it takes half an hour to do other shit around the house and if you want to keep anything like your garden or anything like that it’s another half an hour. ... Everything around you just will start to suffer. But
this is of course bearing in mind that you have a life outside of work. There are plenty of people like the people in California who do not have a life outside of work. Their work is their life and there is no differentiation between the two.

(Conor 2: 54)

52.08 mean working hours weekly (excluding lunch)

All but one of those working in Cobh said they were working longer hours than they wanted to, and two mentioned their intention to reduce their working hours. In this, the Cobh workers were quite different from the other two long hours workers mentioned at the beginning of the chapter, Johnny and Nick. Earlier it was noted that these two had moved from larger companies to start-ups, and with the move their working hours had increased. In these two groups we have an example of the beginning and the end of one of the most enduring stories in Information Technology culture. This is the story of the start-up, in which long hours are rewarded by promises of wealth and success. Nick and Johnny, at the beginning of that dream, are satisfied with the hours worked. For the others, the hope of a pay-off has receded, all that remains are the long hours.

Explaining her change in attitude towards her work, Catherine stated ‘I fell for the whole routine, that (working extra) will come up in the review and you will be rewarded generously. And I know what my friends are on, and I know what I am on, and I know I am on less’ (Catherine 3: 41-55). Yet though this group expressed the desire to reduce their hours, they still remained among the highest workers in the group. As mentioned earlier, this occurs because the benchmark on which they measure their hours is the temporal culture of the company. Though it is worth noting, that after these interviews were conducted, all had left the company; two to travel around the world, one to go to the US (and perhaps to re-engage with the start-up dream) and one had left the industry altogether. In this perhaps we see the use of exit as a strategy for combating the temporal organisation of a
particularly time greedy company. In chapter seven, this strategy will be discussed more fully.

In these sections we have glimpsed the strategies mobilised within one workplace which lead to a temporal culture which prioritises the time of the organisation over all other times. We have seen how the participants manoeuvred within these frameworks. At times they worked with the organisational view of time and at time they worked against it. Temporal culture is not an unassailable monolith rather its dominance is at times questioned; it is created and must be continually re-created. Indeed as has been seen, despite efforts to maintain it, over time cracks have appeared in Cobh's time-greedy culture. In the next section we will look at examples from those who worked shorter hours in order to highlight the strategies used in these workplaces to limit one's working hours.

5. THE SHORTER HOURS GROUP

Half of the shorter hours workers felt there was no expectation for them to work long hours. Mixed responses were often given when asked about the expectations of their company, many saying both that there was no expectation that they should work long hours but also indicating that a long hours culture existed. For example Aoife in the following quote, says both that the company is ‘reasonable’, it expects ‘more than the minimum’ and identifies people who worked longer hours:

Q. And in general what do you think your company expects from you in terms of working hours?
A. Well they expect about 9 to half 5. Well that amount anyway but they expect you to be very flexible. They expect you to work late if you have to. It’s in your contract that you can’t say no and you can’t be paid for it. So it’s obviously in the culture. They expect you to work weekends if you have to but in practice I think unless you have an unreasonable manager they don’t actually abuse (it) because they’re so big and they have enough people to do the work.
So I think to some extent people who work too much, it’s because they don’t mind. There’s a lot of people who are very busy bodies and who want to work a lot, either for their career or because they enjoy it. But the company doesn’t really force you. They ask a bit more maybe than the strict minimum or at least in theory you have to be prepared and you have to say you’re prepared to do it but in practice I don’t think they abuse you really. (Aoife 3: 270)

In terms of orientations to work, some of those in the shorter hours groups (in contrast with those in Cobh) explicitly did not draw their conception of what was reasonable from the working hours of those they worked with. For example, when Sean was asked if he felt the company expected him to work long hours he replied ‘most people are stupid. I don’t feel that. I try and do the hours I am employed to do’ (Sean 3: 214). Two types of strategies which limited working hours were evident among the shorter hours workers. In the first employees acted against the temporal frameworks of the companies. Thompson and Ackroyd show that work limitation practices have been frequently been uncovered by researchers examining work organisation ((Ackroyd and Thompson 1999); (Montgomery 1980); (Goodrich 1975), (Lupton 1963); (Cunnision 1964); (Roy 1952); (Dalton 1948)). Despite the differences in the organisation of work in these workplaces, work limitation can still be identified. The difference is that the limitation described here is the limitation of the working day, rather than the limitation of work within the working day. The second type of practice I identified was that of employees acting alongside the temporal organisation of work. By alongside I mean that that their activity has not arisen in response to the structures of the organisation. By organising their working time in accordance to their needs, these employees are not, in the words of Collinison, simply ‘managing to resist’ but also ‘managing management’ (Collinson 1992). Thompson and Ackroyd identify a strand of organisational studies in which ‘self-management becomes self-discipline’ (1999; 153). These
examples are presented in opposition to those which depict employees only as caught in a web of cultural management ((Kunda 1992); (Barker 1993)).

In the following quote we can see a number of the elements identified earlier in the long hours workplace; there is pressure to work emanating from the incorporation of the customer into the work team. The never-ending tasks of the intellectual workplace are described. We see a cynicism which develops over time, a withdrawal of personal commitment to the work process. Earlier we saw examples of young programmers vocally objecting at having to work late. Here we see this process moving a step further, as the team sets the working time for itself. This has resonance with the famous Hawthorn experiments which identified the practice of 'soldiering' in which a work group ensured the amount of work done by individual within a group was set by the group as a whole (Mayo 1933). The strategy in operation here is a disengagement with the work process. Work time is placed under limits, the demands of the task are ignored:

Q. How do you cope with that, having too much work?
A. I just don't do it.
Q. So it just falls?
A. It does. Well it just means projects get backed up. It means our customers then complain to me and then complain to my boss and then complain to his boss and they say we want this work done, ... and (there is a) kind of constant tension over it, 'why aren't they doing the work quickly enough' and obviously the idea is that maybe we should just work faster but everyone just has to work at their own pace but if you're constantly under pressure to have this work done it does kind of mean that you never really feel satisfied with what you're doing.
Q. At what point did you start getting cynical, how long were you working?
A. I suppose about two years in my previous job, when you know it doesn't really like help either yourself or your career if you allow yourself to be exploited, nobody really appreciates it.
Q. Other people have said that to me as well.
A. That you might feel that you're building your career or you're showing that you're a really hard worker but really you're just showing yourself to be a bit of an idiot and people do look at it that way as well.
Q. Oh do they?
A. I think so.
Q. How would you know?
A. Well if I took on somebody and they rushed to do everything they had to do and came in on the weekends in order to get extra work done, I wouldn't sort of feel inclined to say I must give that person a pay rise or I must promote that person really quickly ... I would more take him aside and say 'don't, you fool', no ... I don't think it does actually work. Obviously it helps but it doesn't help just that easily. It doesn't add up.

(Dermot 3: 16-31)

36.53 mean working hours weekly (excluding lunch)

In another interview Dermot described how the team agreed to come in at a particular time so that they are visible to the company as being in. Here we see management's gaze and the need for synchronicity influencing starting time. As Thompson outlined, 'the attention to time in labour depends in large degree upon the need for the synchronisation of labour' (1991: 370). In the last section of the above quote, the team leader takes on the role of foreman warning a team member against working more than the team norm. Though they start early in order to be visible, they also leave after eight hours, and bring other team members into line if they deviate from this norm. Working hours are set within the team. Dermot also speaks of withdrawing his labour as he became cynical of management panics, a practice other participants also referred to. Where employees speak of not caring whether the work was done or not, whether the deadline is met or not, and of being willing to leave their work behind unfinished, we see a de-prioritising of work time.

The second type of strategy identified was that of working alongside the organisational temporal culture. As mentioned above Plantega and Remery and this research project found
many examples of flexibility in the starting and finishing times of
the working day. What was evident in this project is that
flexibility was granted in response to the demands of employees.
Many identified the ability to determine their own starting time
as an important aspect of the workplace. To those with childcare
responsibility it was particularly important as it allowed them
greater manageability with respect to traffic and crèches. For the
majority of the participants this flexibility was not enshrined in
their contracts, rather it became custom through the informal
practice of the employees. Some participants spoke of efforts by
management to get them to arrive in on time, and of how initially
responding to management requests, gradually people would
ignore directives and re-introduce their practice of arriving at
various times in the morning. One developer, Catherine, as
described earlier, told her manager she would leave her job if she
was forced to come in at nine as was stated in her contract. In
times of high skill shortages, her manager agreed to allow her
the flexibility she desired (though in this case, as we have seen,
there was a hidden cost to this flexibility). In these demands for
flexibility we see example of the de-prioritising of work time,
work time is arranged around and in tandem with the demands
of non-work time (whether that be the time of childcare, or the
time spent sleeping). In another workplace, developers came and
went as they chose. After attempts to regularise working hours
failed, all were sent a memo, granting official recognition to the
practice. Such flexibility is emblematic of the new workplace,
though the identification as something created by employee
practices is less often highlighted.

Strategies more resonant of more traditional workplaces were
also evident. A number of employees combined flexibility with
clock watching. Arriving in at a later time, they counted their
hours, leaving eight hours after the work has started. This type
of behaviour is most certainly not supposed to be occurring in
these new autonomous workplaces. However for these two
respondents, who were recent graduates, working long hours was not something to be valorised. One compared the experience of working in the US with that of working in Ireland by saying:

Q. Americans have got this reputation for being really long hours workers did you find that when you were over there?
A. Sort of yeah, they wouldn’t think anything of staying longer to do their work, whereas in Ireland normally come around half 5 you’d kind of be chaffing, ok let’s get out of here. Over there there’s sort of more a work, ok I’ll be daring and I’ll call it more of a work ethic. Like I know people that would stay in weekends and stuff if they didn’t get their work done, people who come in at half 6, half 7 in the morning if they had to leave early. It’s scary.
Q. And they wouldn’t in your workplace?
A. Oh hell no, there’s one guy who does that but he’s Canadian so...
(Kevin 2: 181)

40.22 mean working hours weekly (excluding lunch)

Note the presence in this workplace of the Stakhanovite, the exceptional long hours worker, whose example is rejected. Instead of a time determined by the task, these graduate workers seemed to still measure their time according to the clock. The following quote illustrates that this temporal accounting can occur over a number of days; clock watching is combined with flexibility, such that Karl has the variability he desires but will not work longer than his contracted hours:

Q. Ok and when I was talking to you last time you said that you, ..you made sure you left eight hours after you came in, do you still do that?
A. Well it’s flexi-time so I don’t always leave 8 hours after I come in but yeah I check on what time and I’m counting down the minutes and sometimes I just say fuck it like I’ll leave early, make up the time some other time, yeah pretty much.
Q. And do you think other people do that?
A. Oh yeah.
Q. So you’d be quite conscious of that, how many hours you worked in the day then?
A. I always know exactly how many hours, not everyone fills out the time sheet every day but I do so then you know exactly what you've done.  
(Karl 2: 140-145)  
36.72 mean working hours weekly (excluding lunch)

Management rhetoric is often keen to claim such flexibility as resulting from management initiatives. When one workplace was undergoing a period of layoffs and pay freezes, an employee asked a senior executive at a company wide meeting what why he thought anyone would be motivated to work in the company. The response was that people would stay because they liked being in a fun and informal workplace. The quotes above highlight that such temporal informality arises from employee practices, not from any management design.

6. CONCLUSION

In this chapter I have shown that the popular image of the IT sector as being the site of long hours holds true only for a section of those working within this sector. Yet despite this, those working long hours have been the focus of much research on management systems in the IT industry, while those working shorter hours have been ignored. I show that working time is influenced by a complex interplay of factors: the nature of the work that is done, the nature of the employee and the nature of the industry itself. Company culture in particular is seen as important in influencing working hours. However these factors alone do not account for way in which working time is organised. We have seen examples of both the creation and of the fracturing of a 'long - hours' culture. Company culture is here seen to be fluid and dynamic. Of importance in modifying culture is the orientation towards working time that is found in this sector.

I have shown that the orientation that exists draws on understandings of what is normal with respect to working time. It is a highly contested orientation, as various actors draw from various spheres to legitimise their claims that their particular
definition of ‘normality’ should apply. In this sense it is not one orientation, but many orientations. We can speak of them as one orientation in that each draws on discourses of normality, acceptability, and fairness. We can speak of them as many orientations in that quite different conclusions with respect to what is ‘normal’ are reached. Like previous orientations before it, at the heart of this orientation is a debate about the relationship between work time and non-work time.

Here the interplay between flexibility and temporal autonomy has come to the fore. Flexibility minimises the importance of the company clock in regulating working hours. As individuals have a certain degree of autonomy over their working hours, flexibility results in variations in the lengths of the working day. This means that a working time standard which applies to all does not exist. In this sector therefore we see the fragmentation of working time. The result of this fragmentation is that those in the companies with a 'long-hours' company culture can not draw on a universally accepted definition of what is normal in order to limit the expansion of their working hours. In industrial society trade unions challenged the current standard working time, in an effort to re-introduce a new (lower) standard. Here there is no standard to challenge; instead challenges must come from their own orientations to working time. This lack of a standard, combined with an orientation that gives more priority to work/life balance, allows others freedom to vary their hours to reduce conflicts between their working and non-working life. Thus within the sector we find examples both of those working longer hours and those working shorter hours. Within this sector working time is variable and, to a certain extent, individualised rather than fixed and standardised.
This chapter examines the time of the working day. In particular it is concerned with the qualitative and socially constructed aspect of working time (Durkheim 1912/1976); (Sorokin 1937); (Adam 1995); (Hill 1989)). Although the work contract implies that all the time spent at work is time spent working, this has never been the case. The working day has always been peppered with holes, some officially sanctioned and protected by law (such as lunch time), some taken when desired (such as smoke breaks). Here I look at the time of work and the time of non-work and show that between these two poles is a grey area of time during which one is not working and not quite on a break. This grey time has two aspects. Firstly, the break that is not quite a break, the ‘fuzzy holes’ that permeate the working day. Secondly, the work that is not quite work, the intangible time of work time, the work taking place when one does not recognise that one is working. It is the particular characteristics of the intellectual workplace which create this grey area of time.

Two aspects of the work process, which have opposite effects on time in work, result in ‘fuzzy holes’. Firstly the process is unpredictable and networked (Abbott 1991)). Each individual component of production is reliant on other elements (other project groups, management decisions on future production, the state of the markets). These aspects of the industry can open up holes in the working day. Secondly the work process encompasses many different tasks and responsibilities. Job definitions have broadened as workers have heightened responsibility for an increased varieties of tasks (Frenkel, Korczynski et al. 1995). Such multitasking closes holes down. If there is a delay on one task, others can be slotted into the waiting time. Multitasking makes work less porous. The phrase ‘taking a break’ can have two meanings; it can mean a break from a task (in order to switch to another task) or it can mean a
break from work (in order to switch to non-work activity or space). Multitasking facilitates the former and thus breaks become ‘fuzzy’.

‘Intangible time’ results from a work process in which particular parts of the work process such as information gathering and exchange and the processing of ideas and concepts are intangible. By this I mean that employees are not aware of the time spent at these activities as time spent working. These activities while being an essential element of the work process are also seen as peripheral to it.

In the second half of this chapter I examine how these workers, given these ambiguities, manage their time within the workplace. I find that overwhelmingly, work is organised according to task rather than time. The timeframe within which these tasks are to be completed is determined by deadlines set by others. Corporate timeframes which equate speed with efficiency are very different from the individual timeframes of the work process. This only becomes problematic when there is time scarcity. Fuzzy holes are vulnerable to compression and hard to defend. They are easily squeezed under pressure. Intangible time (intangible only in terms of perception, finite in nature) is added on to the day, increasing its length. However, within the working day, some participants maintained the boundaries between work and non-work through the conscious organisation of their break time in particular ways (such as the use of routine, or by physically separating themselves from the workplace). As fuzzy holes become less fuzzy, we can see the socially constructed nature of porosity. While work organisation may be shaped by technological processes, work organisation and working time are also social constructions. Barbara Adam highlights that ‘social organisation by the clock and the calendar ...[is] something we have created and imposed on ourselves and maintain by our daily actions’ (Adam 1994). In this chapter we see how spaces
which escape the corporate temporal rationality are also created, imposed and maintained.

1. PERSPECTIVES ON TIME WITHIN WORK

With the industrialisation of society, time came to be seen as an homogenous, objective and easily quantifiable unit (Hassard 1990). However, a number of commentators have considered the qualitative aspects of time. In chapter fifteen of *Capital* Marx outlined why working time cannot be considered as an homogenous block. He also drew attention to the effect of organisational form and technology on the nature of working time. His focus was on the inverse relationship between the length of the working day and the intensity of working time within that day. He described how the use of machinery lengthened the working day. In reaction to this lengthening, and the encroachment of work on life, opposition movements grew which forced legislation limiting the length of the day. In reaction to these limits, capital then sought to increase the intensity of work. In un-mechanised industries, such as pottery, shortening the working day increased ‘to a wonderful degree, the regularity, uniformity, order, continuity and energy of labour’ and so productivity increased (Marx 1867: 17). Factory owners argued that this effect would not be evident where mechanisation had already imposed routine and work-discipline. Yet the shortening of the working day did lead to productivity increases. Marx attributes this to the use of technology. Not only does technology in-itself allow more to be produced in a shorter amount of time, it also increases the labour of those tending it. This was achieved as the speed of machinery was increased and by giving the workmen more machinery to attend. As the day shortens, more and more of one’s work time is spent working. The shortening of working hours gives:

immense impetus (to) the development of productive power and to the economy in the means of
production, imposes on the workman increased expenditure of labour in a given time, heightened tension of labour-power and closer filling up of the pores of the working day, or condensation of labour to a degree that is attainable only within the limits of the shortened working-day... the denser hour of the 10 hour working day contains more labour, ie expended labour power, than the more porous hour of the 12-hour day.
(Marx 1867: 18).

The central argument Marx is making is that as the hours of work are shortened, management attempts to increase the pace of work. In the examples above this increase is achieved either by management organisation of the work process or by introducing technology. May notes that stricter supervision, incentive payment schemes and the imposition of time discipline also serve to 'increase the density of working time' (May 1999).

The longer the working day, the less intense it is and vice versa, 'the efficiency of labour-power is in an inverse ration to the duration of its expenditure. Hence, within certain limits, what is lost by shortening the duration of labour is gained by increasing the degree of power exerted (Marx 1867: 18). However, where the work is routine, there were limits to how long intensity could be sustained over time. Marx had a conception of 'limits' beyond which it would not be possible to sustain a certain level of effort, such that:

... a point must inevitably be reached where extension of the working day and intensification of labour becomes mutually exclusive so that the lengthening of the working day becomes compatible only with a lower degree of intensity, a higher degree of intensity only with a shortening of the working day (Marx 1976: 533).

Nyland argues that little attention has been given to this aspect of Marx's theory, the idea that there are human limits beyond which it is impossible to intensify the work process, that there is a relationship between 'human capacities, working-time and
work intensity'. He argues that most commentators assume that human limits are of little importance in explaining working time reductions of less than 48 hours (Nyland 1983: 143). Looking at the IT workplace Berardi also refers to limits arguing that 'cyberspace overloads cybertime, because cyberspace is an unbounded sphere, whose speed can accelerate without limits. But cybertime (the time of attention, of memory, of imagination) cannot be speeded up beyond a limit' (Berardi 2001: 1). These comments draw attention to the issue of quality of time within work, the time spent working eight hours is not necessarily the same as the time spent working twelve hours.

Where Marx identified the presence of holes in the working day, Roy described their content. Faced with a work that was routine, repetitive and dull, he found his co-workers peppered the time with spaces of variety and interest such that:

The twelve hours of 'click, -move die, - click, -move dies' became as easy to endure as eight hours of varied activity in the oil fields or eight hours of playing the piece-work game in a machine shop. The 'beast of boredom' was gentled to the harmlessness of a kitten. (Roy 1990; 165)

The regular monotony of the work process is mirrored by a more sociable and entertaining routine. First comes peach time, in which a peach is shared, then comes banana-time in which a banana is stolen, then window time in which the window is opened and so follows pickup-time, fish-time and coke time. These holes in work time are invented and maintained by his co-workers. When for a few days these routines are disrupted the unbearable boredom of the work returns.

Fuzzy Holes

In the perspectives above, like an Emmenthal cheese, work is presented as a solid block, a block of work directed activity surrounding smaller spaces emptied of work. In contrast, in the
high-tech workplace work time and non work time intertwine each other. To continue the food metaphor, here time at work is more like a dish of spaghetti; it's difficult to discern where one time ends and another begins. As holes open up in the working day, they are also shut down. For as the working day is intersected by breaks it also is intersected by tasks.

In the example below we see that the need to synchronise one's work with the others in the production process opens up holes in working time, as participants stayed late to take conference calls with team members in other countries:

Q. And would you have the experience of conference calls running later into the night because it's not night wherever people are?
A. Absolutely, especially where, if we have pushed to get a piece of work done. It has to be done we'll say, like we might have said it has to be done today. You know, we have to have this done before tomorrow. And then it gets put off or delayed for an hour or two hours and it comes up in mid afternoon for us and they still haven't started on it. It's then very difficult... to say 'well we pushed for this, but if you can't get it done by five o'clock then don't bother or do it tomorrow'. But then it comes to... six o'clock in the evening and they're only just getting stuck into it now. You're looking at your watch and going, 'I'm going to be here till nine o'clock waiting for them to get this finished'. Sometimes you can just go home but other times you know you just can't do that. They're going to run into a snag that you're going to have to be there for so that can be very frustrating and it's very difficult to get them to realise that they need to start earlier in the day.

Q. Yes, yeah. And is there any sort of understanding you know that sort of, you are staying late to facilitate them? I mean could you say it to them, you know,
A. Oh absolutely and they're aware of it but they're, you know thousands of miles away and the more it happens, the less they care.

(Dermot 2: 356)

Harvey argues that with post-modernity there is an 'incentive to create the world-market, to reduce spatial barriers and to annihilate space through time' (Harvey 1989: 233). It is ironic
that along with the compression of space comes the opening up of time, the creation of empty times of waiting.

However the compression of time in work also occurs. The chief organisational feature which limits the spread of such holes is the use of multitasking. Multitasking means more than having a number of tasks to work on, it also means having to do more things at once. It is a phrase derived from the computer technology that frames the working day, the desktop computer which allows one to switch between programs in an instant, to work on many different applications simultaneously. Short tasks are useful, in that they plug the wholes left in-between larger projects. The variation in time taken for each task allows new tasks to be slotted in to the time spent waiting for another.

E-mail is the ultimate micro-task; for the interviewees it operated in a grey area between work and non-work. For most of them e-mail constantly filtered in throughout the day. Very rarely was reading email included as a break in the diaries. Reading a personal email took only seconds, a quick flick between thoughts as one perused the task at hand. E-mail was a work and a non-work activity. All the participants were required to be on work-based e-mail lists and spent parts of their day reading and writing emails. E-mail is the ultimate example of a work time that is short and immediate. Most were also in correspondence with friends and family. Some were on e-mail mailing lists with friends working in other computer companies, enabling virtual conversations to be pursued with a wide group of people. E-mail is also ambiguous; each individual one might take couple of seconds to read. Dealing with all of them might take a morning or an afternoon. It is short and bitty, yet also time consuming. This interviewer is describing e-mail as the boundary between work and non-work:

On Friday I have this planning meeting with a number of people in the department and I'm running it so I'll probably try and get in for 9 and I will do my
e-mails, I always do that first because that kind of eases me into work ...
(Linda 2: 135)

Another sees e-mail as an interruption to his working day (though the e-mail itself is an intrinsic part of the work):

Q I'm interested in your rhythm of work is there a particular time of day you work best, you do more work and times when your slacker?
A It kind of depends on how good a head of steam you've got, the best time of the day for getting work done really is the morning but it's very hard to get the work done in the morning if you've got a lot of e-mails to deal with because you just dissipate all your energy simply reading them before you even start doing anything about them. But if I'm doing coding then somehow the afternoon is better because you can just get a head of stream and you keep on going.
(Mike 2: 92)

Multitasking changes the nature of breaks, multitask breaks are 'fuzzy' because the employee isn't taking a break from working to not-working but taking a break from one task to another. Though the other task may be a personal project (thus perhaps considered not-work time) it may also at a future point become part of the production process (thus becoming 'work time'). The boundaries between work and non-work within the workplace are blurred.

**Intangible Time**

Irish legislation on working time defines work as when one is both at one's place of work and doing work. It can be difficult to conceptualise the holes in a working day as the question of what one is 'doing' when one is working isn't always immediately evident. In some cases participants took breaks because they were waiting for the machinery to finish its task and become available once more. In others however, the machinery they were

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48 Organisation of Working Time Act 1997

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waiting for was their own ability to progress with the problems at hand. Hardt and Negri argue that ‘today we increasingly think like computers, while communication technologies and their model of interaction are becoming more and more central to the labouring activities’ [Hardt and Negri 2000: 291]. However human mental processes are different in a number of ways from the computers which the multitasking metaphor is derived from. While the time computers take to process information is quantifiable, the time humans need to think is open-ended:

I probably won’t spend more than two hours on the same problem, because if I wasn’t getting anywhere, it probably is that I’m not in the right frame of mind, whatever, to deal with it.

(Aoife 1: 187)

A. Typically I think right that’s all I can do now, there is something you get when you are programming that is the equivalent of writers block. It is not as severe as writer’s block as you can force your way through more readily, but often you’ll go ‘I can’t really see very clearly how to resolve this minor detail’. And then it’ll come clear to you. It’s quite like mathematics when you’re trying to think through a theorem, think through a proof, you are ... essentially moving shapes in your head. And you actually need to stop thinking about it.

Q. and you started starting thinking again at 12.30?
A. That’s because it’s become clear again and I want to write it down.

(James 1: 168)

Work time here is intangible, one is not producing, but one is still occupied with a problem. A number of interviewees noted that when not working they would surf the web, and sometimes the information they found there while ‘not-working’ would become unexpectedly useful at a later point. At other times, the information found remained relevant only to themselves. The distinction between what is useful to work and what is useful only to oneself becomes apparent only after time:
Q. So would you say you're bored much at work?
A. Yeah a lot.
Q. What do you do when your bored?
A. Surf the web a lot, read a great deal of soc.com and Salon.com and so on and generally keep up on hardware and technology. Some of it, actually a lot of the stuff I do when I'm bored or a fair bit of the stuff that I do when I'm bored does end up being useful later because it will be some obtuse bit of networking that I'm discovering and then it turns out a year down the line that we need it or something. But a lot of the other stuff is just cultural studies and history and reading Encyclopaedia Britannica after seeing Gladiator.
(James 2: 41)

Other aspects of the work process are intangible. Information Technology is both isolating and unifying. Isolating, in that each person is physically separate from another (sometimes across great physical boundaries) and in that each works alone solving their particular part of the puzzle. Unifying in that knowledge is passed from person to person and expertise is shared. In the words of Frenkel et al; 'IT heightens 'connectivity' (Frenkel, Korczynski et al. 1995: 775). Communication, sociability and talk are also part of the working day and are essential to the work process, but is the time spent chatting to others work time or non-work time? Kundra describes 'time-outs' that take place during workplace meetings at the High-Tech firm he studied. During these short breaks the participant suspend their engagement with the meeting proceedings, adopting a flippant playful attitude instead. During these breaks the topics of the meeting continue to discussed albeit in a more informal manner (Kunda 1992). Perlow also described how the engineers' working day is peppered with interactions, interactions 'which are crucial to getting the job done' (Perlow 1997: 82) yet these interactions were seen as deflecting from the 'real work' of engineering. She identified six types of interactions; helping, checking, integrating, planning, socialising and a miscellaneous category. Fletcher adds a further four 'invisible' interactions to the
The following quotes provide an interesting illustration of the sociability intrinsic to the work process. It also highlights that being social is another example of the grey area between work and non-work, and an area that makes it difficult to demark work from non-work and work time from non-work time:

Q. Last time you said that even though you are contracted to work till 5:30, you tend to work until 7. Is that still so?
A. Yes, even later.
Q. You said you got the idea it would be a problem if you left work at 5:30?
A. That is not really the reason I stay so long, the reason I stay long is because I have that much work to do. I have so much work to do that the only way I can get it done is if I stay till 7. The other reason I work late, is that I get more done in the afternoon. I get very little work done in the morning. Especially if I'm writing something, like on Wednesday I had to write something, and I meant to do it just in the morning, but it took until 7 to get it done.
Q. Do you think you will ever change your working hours? Working from lunch time to later, or would you not want to do that?
A. I don't know, because you miss a lot, if you are not there. Especially at the moment, if you are not there so many things are changing. Ideas are changing the whole time, so if you are not in the office you might miss out. In a future job, maybe.
(Linda 3:21)

The interviewee stays late because she has too much work to do. In an earlier interview she described her work as follows:

49 These are: 1. Preserving the life and the well-being of the project, 2. Empowering others to achieve, 3. Empowering oneself to achieve and 4. Creating the social entity that is the team.
My whole job is thinking so I'm a proper knowledge worker. So the output of that then is writing documents, having meetings, talking to people, sending e-mails, all that kind of thing but the actual meat of it is thinking, so sometimes, I find anyway, I find it very difficult to do that kind of work in the morning so I do background reading and stuff and that kind of work can happen anywhere, if I'm walking along home sometimes I do it.
(Linda2: 21)

In this description she describes the various tasks that make up her working day. She also makes a distinction between 'thinking' and the rest of her tasks. To her 'thinking' is her central activity. In the first quotation, she explains that she stays late because she has too much work to do and generally does little work in the morning. Here we can see that by 'work' she means her core activity of thinking, and of writing those thoughts down. Work involves the production of a tangible product. This tangible product, a piece of writing, is also evidence that time has been spent 'working'. Yet she does not describe her work process only in terms of thinking or writing. She wouldn't work away from her desk because she feels that all the communicative aspects of work (the chatting, the meetings, the e-mails) are also a necessary part of her job. She needs the social interaction to keep in touch with what is happening in the company and in the industry. She needs to do background reading to be able to formulate new ideas. But there is a conflict here. While these aspects are an important, un-replaceable component of her work process, the time spent doing them is not quite seen as 'work' time. That is not to say that she sees it as leisure time either. They are the grey area of 'not-quite-work time', a time that leads up to 'work time', that leads up to the 'meat' of the working day. At the end of the interview process, each interviewee was asked if taking part in the study had changed the way they thought about time. Below is how this interviewee replied:
A. A bit. I think over the last year I have become more aware of the whole idea, of the way we depend a lot on who we interact with. A lot of work is all about thinking. Then what you produce as a function of thinking. Then the idea that that doesn't necessarily happen in the office. It can happen any time. So if you are writing a report, just because you sit down to do it, it doesn't mean it's going to happen. A lot of thought takes place outside work. But how does an employer handle that. The other night I wasn't able to sleep properly, and I was thinking about all this, and I wrote it all down in the middle of the night. I wasn't in work but I was working. I don't know how work places can adapt to that kind of thing. I don't mind that at the moment because I am interested in it.

(Linda 3: 691-704)

There are a number of elements in the reply that are interesting. Firstly, she says she has become more aware of how much her work is based on interaction with others. In the interviews (partially cited above) it is clear that much of her working day is spent either formally (meetings) or informally (chats) exchanging information and ideas with others. Secondly she again pinpoints thinking as the most important element of her job. It is the element that leads to the production of something tangible. However, thirdly, she is more aware now, that this type of production can not be turned on and off at will. The aspect of this that she focuses on is the boundaries between work and home. Sometimes she is at home, yet pre-occupied with work the production process is taking part outside the workplace. The aspect that she doesn't highlight is that the time spent on all her other tasks is an essential prerequisite to intellectual production. In the last interview I asked what were the most time-consuming things at work. She answered:

A: Meetings, Writing, I find that time consuming, I can only do it when I am in the right frame of mind. It could take me all day but it might only take me 2 hours to do the writing, to get to the stage of actually writing it.

(Linda 3: 563)
For her, writing is time-consuming because she’s not always in the right frame of mind. She doesn’t account for the time spent leading up to the writing. Here there is a gap in time, a hole in the working day. From her interviews we know that this hole is spent gathering and assimilating information which inform her thought process and enable her to write. It is not a hole spent at leisure on breaks or away from work. Yet, as this final quotation illustrates, for the interviewer it is ‘not-quite’ work:

Q. That is funny, you said you are a slow starter but yet you read all that in the morning.
A. I do stuff but I don’t produce anything. In the morning I do a lot of reading, and flap around, sometimes I have a meeting the morning, that is a good thing it’s good to get those out of the way. Although I am not very good, if it’s a meeting I have to be on top of, I am not great at that. I can do it, but I don’t like it. I don’t like pushing myself very hard. What I want to do comes easier in the afternoon.
(Linda 3: 662)

In this quotation, once again, she identifies the fact that she finds it easier to work in the afternoon but she sees this as coming from her own personality rather than being related to the way the work process is organised. Kunda described the effects of cultural management in high tech companies; ‘members have internalised the ‘problem of control’ that lies at the heart of organisation and the private selves of members have become part of the ‘contested terrain’ (Kunda 1992: 220). What is being internalised here is the temporal rationality of the organisation, a rationality which sees production in terms of homologous units of time which may be manipulated. Whereas looking at the work process itself we can see that many different types of time combine to produce the finished product. Being organised for a meeting takes time. If the meeting is held in the afternoon and Linda spent time in the morning preparing, she is much more capable than if the meeting is organised in the morning and she
has little time to prepare. Aspects of the work process that take time such as preparation are not visible. Another participant experienced a variation on this theme. Recently promoted to a more managerial position she found that the administrative tasks that accompanied her new role caused her to occasionally stay late. The technical job she continued to do was conducted within normal working hours, almost as if the administrative tasks are not seen as part of her real job but as an ‘add on’. Intangible work results in intangible time. As we have seen in chapter three, the participants were asked to keep weekly diaries in which they noted when they started and finished work, when they took breaks and how long those breaks lasted. They were asked to keep day diaries in which they noted what they were doing at half hour intervals, including how many tasks they were working on. Many commented that the process made them more aware of the breaks they were taking. Without the diaries they were not conscious of when they took breaks or how long they took breaks for:

Q. And my last question is has taking part in this study changed the way you think about time or made you think about time at all?
A. Yeah I think it made me realise how little time is spent working in the day, I think the first time I did it I counted up the amount of hours I did and it was something like 2 hours on some days and I was talking to a friend about this and he said that he wouldn't want anyone to find out how little he worked.
Q. Does that mean you have an expectation that you should be working more.?
A. Yeah I've a feeling that, who was it a scientologist that you're only using some small percentage of your brain, I've a feeling that there's a lot more capacity and that I could be doing an awful lot more and that there's lots of room, just because you think you're working hard you probably aren't and so on.
(Joe 3: 235)
This participant went on to explain that if he was working at home, he would spend his time doing other things (housework, reading, TV) because he couldn’t concentrate on what he is supposed to be doing. Like Linda above, he feels he is failing to manage his work time the way he should be. Like Linda above his definition of work time relies on a very ‘productive’ definition of work, that is, one is working when one is producing something concrete. Like Roy’s work colleagues mentioned earlier, his working day is interspersed with non-work time. However unlike Roy’s work colleagues he feels that this is problematic (Roy 1960). This could reflect an internalisation of control which occurs in these workplaces (Kunda 1992) or as will be argued in the second half of this chapter, it could reflect a differing relationship to work.

2. TIME MANAGEMENT

Autonomy and self-regulation of time is a feature of the knowledge workplace ((Symes 1999); (Paolucci 1996)). Control over their time was mentioned by some participants as an aspect of the job which they liked. Yet this control took place within the context of a working time which was often hidden. Awareness of time becomes a particular issue when time management is considered to be part of one’s job. Types of work time may be perceived as intangible, but time itself is finite. The following comments are typical: ‘the amount of work I can’t decide on, how I decide to organise myself is quite flexible’ (Aoife 1: 17), ‘It is very much left up to us what way we do it as long as it gets done by that date’ (Catherine 2: 31). Management of time often occurred within the constraints of externally imposed deadlines. Hassard argues that the ‘time period has replaced the task as the focal unit of production’ (Hassard 1990: 12). Hill describes a ‘systematic pressure towards the more intensive use of time as part as the chronic search for improved efficiency... time at work ceased to be organised according to the task. The clock becomes
dominant' (Hill 1989: 3). He notes that professional work is an exception to this onward march of clock time, and therefore is still task-based. In these high-tech organisations, as we have seen in the previous chapter, neither task nor clock alone determines temporal structures.

The next sections will show that in looking at the organisation of working time within work there is separation between corporate time and the time of the individual work process. As companies become increasingly involved in networks of relationships, company-wide time management is increasingly important (Symes 1999). At an organisational level, planning rests on the calendar, deadlines being of core importance. However, unpredictability, the non-repetitive nature of the tasks, the dependence on technology or on others can lead to tasks taking much longer or indeed much shorter to complete. In contrast therefore, at the level of the work process, the task is the unit of importance in planning.

Corporate Time management

The thought processes within these industries turn on its head the modernist conception of work. As Hassard describes:

In the wake of industrialism, and of industrial capitalism in particular, much human experience has been transformed into a relentless effort to avoid time waste. Visible time wasting is indeed the paramount sin of any workplace. The separation of planning from execution assures that any repetition or apparent inaction on the part of the workers is assumed be idleness (Hassard 1990: 8).

Where planning and execution are unified, as above, daydreaming can be creative. Yet what happens to the category of idleness in the new economy? Adam describes the valorisation of speed and efficiency that accompanies industrial society. Time in thought or waiting for thought is an indispensable part of the working day and cannot be willed or wished away. The limits of
the IT workplace are the limits to how fast, how often, how continuous is the creative effort. There is a dual temporal existence in organisations. On the one hand time in organisations is quantified, decontextualised, rationalised and commodified, on the other hand for individuals it is lived, created, generated (Adam 2001). Adam locates the origins of organisational rationality in the concept of 'time economy' which implies that the shorter the period of time between an investment and its return the greater the profit. Competition adds another layer of time-compression. The faster a product is produced, the cheaper it can be, so competition can be undercut. Furthermore there is more time left to produce another product, all the better to compete with one's rivals in industry; 'when time is money, speed becomes an absolute and unassailable imperative for business' (Adam 2001: 10). She describes the problems that emerge for types of workers or cultures where speed is not an appropriate form of measurement or a positive quality citing the examples of artists, carers and people providing services but knowledge workers could just as easily be included in her list. Here then is a contradiction at the very heart of the knowledge economy. It is from this economy that the metaphors of speed, instantancy, rationality spread like wildfire, yet it is also an economy that is based on a process with quite a different temporal reality, a process that takes time, that cannot be hurried beyond a certain point. Yet this lived time of knowledge work is hidden, even from those living it50.

50 Adam provides a similar paradox referring to just-in-time production; on one hand the system is centred around the elimination of waste time and high levels of flexibility. On the other hand it is an extremely complicated which requires high levels of synchronisation. It can not be maintained without a highly co-operative workforce, and 'such a workforce, is not achievable if the just-in-time logic is extended to the worker'. The logic of just-in-time is reversed on the individual level and workers are offered long term contacts and security to secure their commitment. Adam, B. (2001). When Time is Money: Contested Rationalities of Time and Challenges to the Theory and Practice of Work. Working Paper Series. Paper 16. Cardiff, Cardiff University.
Corporate time and the time of the individual work process operate in hierarchy with each other, with corporate time taking priority over individual time. Where stress was felt it came not from multitasking, from having many tasks to do, but from having not enough time to complete them all. Indeed, variety and contrast were cited as one of the ways in which their work was enjoyable; for some people the type of work they did varied, for others, while the task was essentially the same, the time scales altered:

Q. When you were talking about your job, it seemed like you were doing lots of different types of work. When you develop would you be working in more than one project?
A. Yes, but there is only really ever one major one. I am not the developer as such, so I would only be doing one thing when I am really developing something and the rest would just be very bitty maintenance of code of other things that exist already. So I would say one at a time.

Q. Do you ever find it difficult juggling the different roles you have?
A. Not really, no, I am used to it and I quite like it. I like the variety, I wouldn't like a job where everything would be really busy, I wouldn't like purely an IT support job. Where you get a call and do one thing for 1/2 hour and then stop, but this is a nice combination because you do some things that are long and more involved and other things that are a bit more bitty. I quite like that.

Q. Some one said to me with this kind of work you never have a sense of closure?
A. Again, I am quite lucky that I have a good balance, I have enough variety but I don't just have that, but I also have a few things that I can pick up from scratch and finish. So I do also have projects where you do have the closure thing, but some people might argue that if you are in support you get closure 5 times a day. I think I wouldn't like to do all the time something that takes 3 months or all the time something that takes 1/2 an hour. I like a bit of each.

(Aoife 2: 152)

Satisfaction here is linked to the number of tasks undertaken. From the quote it can be seen that the varied nature of the work,
as the HRM theorists suggest, increases satisfaction and productivity (Beder 2000). However satisfaction is also linked to the variation in the time taken for each task. Longer tasks give a sense of closure and are seen as 'more substantial tasks'. The timeframes of the tasks can also be too short, as with the worker under Fordism, to allow for any engagement in the activity. In the following interview Mary is left with either nothing to do or small tasks that finish quickly:

Q. Would you say you enjoy your work?
A. I am enjoying it less at the moment than the last time I talked to you. I don't seem to have as much satisfying work to do. Really not enough satisfying stuff to occupy my time, I am not sure my boss is that concerned.
Q. Would you find it interesting?
A. At the moment only in spots, previously it was quite interesting.
Q. What aspects are you not enjoying?
A. Basically not having enough tasks to do. We have had software problems, and shuffling around people in different projects, so I am left without anything really to do. But I can't really dedicate myself to something entirely, because they might want me to do something else, at any given moment. It's not what I want to be doing.
Q. What do you do in that situation?
A. What I am trying to do, even though it might be difficult, is to just brush up on other skills, like practice my C++, I am not very good at that. I am finding out about more certification exams that I can do. I am also spending more time sending pointless e-mail.
Q. How long would it be that you would be left like that?
A. It's been a couple of weeks, they are periodically finding little things for me to do, but they finish quite quickly. But hopefully in a couple of weeks there will be a more substantial project coming up. It's not something I am hugely interested in but at least it's something. There is a bit of meat to it. It's nice to have a couple of days without too much to do, but when it extends beyond that. There is only so much pointless stuff you can do.

Q. If it didn't change what would you do?
A. I would start seriously thinking of changing jobs.
(Mary 3: 36)

The company tries to fill the holes by giving her small tasks to complete, but she is dissatisfied and thinking of leaving because she feels her work as a whole as no real meaning. This concern with having tasks of long enough time period to be engaging, suggests a differing relationship to the work process. The interviewee below described how, as work has become a lot less porous, he no longer plays computer games during the working day. Previously he was attached to one project, now he multitasks, and finds he is working much harder. However he does regret the time lost to game-playing, the variation in his work is much more enjoyable:

Q. You used to say that you associated leisure with work in terms of you used to play games at work and then you stopped doing that. Why?
A. I think that there's a very clear dividing line. That when I was a programmer I did that and then when I wasn't I didn't do it anymore. It wasn't conscious things, probably to do with the changing nature of the work I was doing. But now much more of my time involves interacting with people and I'm much less interested in playing video games. Also I'm working a lot harder, I have a lot less time. There's just a finite amount of time in the day and by the time I'm finished my work I'm going to leave

Q. How come you're working harder?

51 Note also that he indicates that being in a direct relationship with the customer has increased his workload This relationship has added another task to his workload, the task of communicating and managing the customer.
A. Well I'm enjoying what I'm doing much more than I did when I was a programmer and they pay me a lot more so I'm expected to produce more because (in a) a professional services company, consulting company, the more you're paid the more you're expected to bring in.

Q. And when you were a programmer would you also be working on different projects?

A. No I would have been working on one project all the time.

Q. That might also be a factor?

A. Yeah it could be actually. Maybe I've got enough multitasks in my life now and I don't need the video games, possibly yeah.

(Karl 3: 45)

Multitasking therefore is often welcomed as it facilitates the closing down of holes in a work process which promises to maximise engagement by providing interest and variety. In Roy’s ‘banana’ time porosity is a welcome escape from work, in these cases porosity is an unwelcome time of boredom (Roy 1960). This indicates that the changing nature of work has changed the relationship between work time and non-work time. If work is desirable, it is not work itself that causes conflicts. It is the temporal contexts within which work occurs which cause difficulties. Multitasking therefore only becomes problematic when it was necessary to prioritise between tasks and negotiate between competing demands for time. This necessity comes from time horizons set by a temporal corporate rationality, expressed through the imposition of the deadline, as the quote below indicates:

Q. Ok another thing you said that you'd started work and you did about four or five different things? Do you ever find it stressful juggling all your different sort of responsibilities?
A. Yeah if I have to do two different things, two entirely different things at the same deadline and it is hard to know which one to do first. That's the main cause of stress and working late is just having too much to do full stop but if you only had one thing to do then like it would be easier to plan what order to do it in.

(Mike 2: 91)

Planning the Individual Work Process

The participants felt that planning according to time was not appropriate to the work process for a number of reasons. I have already described the difficulties in accessing how long it will take to complete a task. In addition, the ‘bitty’ nature of work meant that new tasks kept arriving on the desk. The variables within the plan were constantly changing, both in terms of how many things had to be done, and centrally in terms of what had to be done. The following participant explains this latter point:

A In the current work environment things are changing so fast that actually they give you this stuff to do and it becomes irrelevant. Now this ... thing is actually quite important, but the plan, I wrote a couple of plans to do it and they were out of date like the day after I'd written them. So I didn't write any more plans. I just kept it in my head. So stuff is just changing.

(Linda 2: 96)

For some it was the people behind the tasks that introduced unpredictability into the work process. For those in customer support, each new task comes with an impatient user attached. For others, the customers for whom they are creating a product are part of the work team. This reflects the transmitting of the management function to the customer relationship (Leidner 1993). One participant explained that part of his work involved ‘managing expectations’:

Q. Do you have a problem in having to deal with demands from different customers for your time?
A. That can be difficult but I think you just have to be firm. I think the hardest thing isn't juggling your time or giving time to each piece or managing the change requests and the pressure for change, it's managing the expectations from the beginning... because if you're talking about bespoke project work it's all intangible at the beginning. It's all up in the air and it's all in people's brains and everyone has a different perception of what it's going to be... It would be the same if we were talking about a new kitchen. It's the same thing, everyone has a different idea of what it's going to look like. It's managing those expectations and reinforcing the expectations and resetting them if things change... that's the hardest part of the job.

Q. Some people are saying that the problems they have is that those expectations are set by sales, does that happen with you?

A. Yeah that does happen. I guess that comes with the turf and it can be a problem that sales people don't really understand what they're selling and they obviously need to get commission because that's how they get paid so their focus is on sizing a person up and they sometimes promise more than can be delivered. But my job then is to manage that expectation and reset it and change it down and that can be hard. Like I say that is the hardest part of the job, it's partly related to sales.

(Karl 3: 20)

Three approaches to the self-organisation of work were mentioned, none of which included management according to a time-table. Some tackled tasks in terms of priority. Often this meant tackling the tasks that they were receiving most reminders about from management, other members in the project group or from customers rather than the tasks which were most urgent. Others operated a 'first-come, first-served' system. A list was made of tasks as they came in and was tackled in that order. For others, those tasks that were most interesting were seen to first. In all these strategies it is the task and not time that is the basis of organisation.

Management to reclaim time

Time management can occur for different reasons. In industrial society time is managed in order to increase its productivity. The
aim of management can also be to increase one's non-work time. When the participants were filling in their weekly diaries, they were asked to note when they took breaks and how long they took them for. In Figure 6.1, we can see there is a weak positive relationship between the length of the working week and the number of breaks taken in a week.

Pearson Correlation =0.291, significant at the 0.01 level

Figure 6.1: Time spent on breaks in a week vs hours worked in a week
In Table 6.1 above, I look at the relationship for each day of the week. Once again positive relationships are found, this time of moderate strength. These figures give only a rough estimate of what is occurring. Participants subjectively measured their own breaks and there is bound to be some discrepancy in the measurement process. However, taken hand in hand with the interviews, as this quote indicates, they do support the contention that the longer the working day, the more porous it becomes:
My experience in the past from seven years or whatever working is that ... you can work until midnight ... you just take the amount of work you have and just let it spread out for that and start going off for coffees and whatever. So you have to - if I don't put times around it - and if you do for a long period of working 10, 12 hours a day what happens to me is that my work and my rate of work goes down. And I'm generally tired all the time. And then I might start to become unhappy from not having enough leisure time or feel that I feel like I was a hero or a victim or something and feel that I deserved time off or something, a very bad situation to get into it. I know I need to keep a balance or it's not going to work.

(Joe 3: 27)

There is a tension therefore between a work process which is engaging, yet which has the potential to colonise all other times. This tension will be outlined in detail in the next chapter which looks at the boundaries which surround the working day. Within the working day, one strategy used to limit the spread of work time was the imposition of routine. Intrinsically there was little routine attached to the work. Sometimes it was intense, sometimes it was slack. Routine can help shape holes in the working day, holes in time from which one escapes from work. As Sennett argues 'routine can demean, but it can also protect; routine can decompose labour, but it can also compose a life' (Sennett 1998: 43). Sennett sees the empowering potential of routine and is worried that flexibility closes down these opportunities to escape work discipline. However as Roy shows in his discussion of 'banana time' routines are creations of those involved in the work process. The machinery and work-organisation of the learning organisation is different from that of the Fordist factory but it would be peculiar if efforts to reclaim time ceased with a change in work organisation. Despite the non-routine nature of the work, and the fuzzy nature of break time, some of the participants imposed routine on their work as a way of increasing the number of breaks they were taking:
Q. Has participating in this study changed the way you think about time?
A. It did actually make me look at my lunch break. I didn't realize how much time I spent on my lunch break. It doesn't make a difference if you work (during) your lunch break so I might as well not. It's different if you are in a clock in, clock out, it will make a difference. But if you are in an office and you work through your lunch break, you can't leave an hour earlier. So I just take the time.
(Catherine 3: 593)

A number of participants made a conscious decision not to eat lunch at the computer, some to leave the office building, putting physical distance between them and their work. Another takes a regular afternoon coffee break in the canteen, again removing herself from her immediate working environment. Kunda in his study of a High-Tech Corporation in the US also describes engineers removing themselves from the space of the company they worked for in order to retreat from the time of work (Kunda 1992). One participant set up his own business and deliberately chose office space which had fixed opening and closing times so he would have to structure his working day within those limits. He used the building's time requirements to impose routine on his day (Joe 2: 27). While recourse to routine may be a strategy with echoes of industrial workplaces, in another instances, decisions were made which addressed that most post-industrial aspect of the knowledge workplace, the globalisation of working time.
**Global Time**

Corporate time embraces a global time sense in which 'locality, context, seasonality and history are rendered irrelevant' (Adam 2001: 19). For individual timeframes, circadian rhythms, the need to sleep and the difference between day and night exist. For global timeframes they don't. Adam says that 'in such decontextualised conditions, real people living in particular places with specific needs are sidelined out of the frames of reference: they have no frame of reference' (Adam 2001). In the following examples we can see the power of global time as a corporate rationality, but we can also see instances in which this rationality is challenged, instances where the local, specific nature of time is used against global homologous time. Two participants made the decision not to come into work after flying long haul, and as this quote illustrates, this is a conscious decision made to resist pressure:

Q: So would you ever have a situation where you're travelling over night and then having to come into the office?
A: Not really because I don't do the long hauls. If I was doing long hauls though I wouldn't do it, I'd just say no I'm not coming in, I'm going to go to bed now, that's what Linda does and it's the right thing to do. I see people in the office doing it, flying back from China and coming straight into the office but they're mental. No problem is that important that you can't get your sleep.

Q: Why do they do it?
A: I don't know. People put terrible pressures on themselves. I don't know why but, it's like why do I work more hours than I have to? It's me putting pressure on myself. One they feel they should get the job done and two they feel that if they want to get ahead and they want to do well they need to work hard and be seen to get results and that's a way of getting results and sometimes there's a kind of a machismo thing I think, 'just off the red eye'.

Q: And you said that when you do travel you slack off sometimes for a few days afterwards, what does slack off mean?
A: It means coming in at 11 and leave at 4. It means when I'm in maybe not do that but spend a lot
of the time wandering around the office catching up, chatting to people, drinking coffee and doing little pet projects that aren't related to revenue.

(Linda 3: 30)

In this quotation we see two approaches to the global workplace. One is to ignore the realities that different parts of the world exist in different timeframes. Global time is dominant. The second prioritises local time over the global, rejecting the pressures of global time. The quote below illustrates a different use of global time. The programmers' team has been asked to carry mobile phones so that they will be contactable if there is a problem in the US. They have agreed to accept this, only if the US teams do the same. For the Irish Team, this means having to be available five hours after work has finished. For the US team, this means having to be available five hours before starts, that is to be available from five in the morning. The Irish team know that the US team will never accept these conditions. They have agreed to the change only because they know it will be resisted in the US:

A: ... they're forcing us to take phones, mobile phones to be contactable on certain days, when certain things are happening. When an install is occurring, .. we should be contactable until ten o'clock in the evening our time because that's a five hour difference. They have a close of business of five o'clock ...But that has to cut both ways. And whilst we have accepted this on the principal that it must cut both ways, people who are actually physically involved in the ground in the States, to all extents ... this means that they may be contacted at 3am their time because if we're in at eight that would be three o'clock in the morning for them if we come in and find a problem. And while their managers have agreed, yes of course, the actual people who we would be phoning would not agree to this at all... to be honest we have agreed to this because we know there’s no chance they will agree to this at the end of the day.

(Dermot 2: 369)
Giddens coined the phrase 'time-space distantiation' to illustrate how social action operates across time and space (Giddens 1984). Here we see how this process operates in practice. Time is not global in that it isn't experienced in the same way at the same instant. The world isn't awake and working at the same time. Different spaces have different time realities, and the programmers above have used this knowledge to resist a change in their work practices.

3. CONCLUSION

Time in these IT companies is characterised by the interplay between flexibility (wanted by the market, the company and the individuals) and high levels of employee temporal autonomy. In this chapter we looked at how the technology, organisation and tasks of IT work create a particular type of working time. A corporate rationality of time pictures time as manageable, quantitative, organised and arranged such that production occurs at maximum speed hides. Behind this, however, there is another temporal reality. For the individual work-process the time of production encompasses times of thought, imagination and sociability.

Time in work is often described as nothing more than an abstract homologous unit of exchange and measurement. Here I have outlined the other time which also exists, time as a qualitative lived variable. By looking at the work process itself we can see that the nature of the work that is being done and the networks within which it is being done operated according to a different temporal logic than that of a rationality which decontextualises time from the times of the work process. Speed up is not always possible.

We then looked at how autonomy, in particular, the self-management of time, operates within these types of working time. We also have seen examples in which time is managed, not to increase production, but to re-claim time from the production
process. In some instances, this is done in ways that have been found in previous generations of workers. In others, aspects of the new workplace, particularly its global nature is used. However we have also seen that the distinction between work time and non-work time within work is not as clear cut as in previous generations. Where the work is fulfilling and satisfying it is the empty spaces of non-work that must be escaped, not the full spaces of work.

Within these workplace perhaps the important distinction to be made therefore is not between time of work and time of non-work but between a corporate rationality which compresses time and a reality which allows time, that is between a rationality which embraces the time it takes to be creative (which includes time to be sociable) rather than a rationality which sees that time as problematic.
This chapter is concerned with the boundaries between work and non-work. Most of the literature on life/work balance is concerned with lack of time and issues of temporal scarcity. The nature of the boundaries themselves are less often examined. Speaking of the spatial borders between countries, O’Dowd comments that:

Their significance is established in narratives through which people come to know and understand their social world, constructing their social identities in the process. Borders are tools for thinking with as well as phenomena to be studied (O’Dowd 2003: 8).

Borders are the edges which define the centre. Examining the temporal boundaries which surround IT work can help us comprehend the nature of intellectual labour and its working time. Intellectual labour offers the possibility that the boundaries between work and play will dissolve, and in this chapter we will see instances in which this has occurred. We also see instances where it has not occurred, suggesting that the relationship between work time and non-work time is both complex and fluid. In looking at the borders we can see that, as Himanen argues, despite the promises of a new working time offered by the IT economy:

the dominant development in the information economy seems to be that flexibility is leading to the strengthening of work centeredness ... in practice the block of time reserved for work is still centred on an (at least) eight hour working day but leisure time is interrupted by spells of work (2001: 30).

A non-work centred time is one in which time is less optimised, less routine. Himanen uses the platonic word ‘skhole’ to describe a time in which one can ‘organise one’s time oneself’ (2001: 33). In this chapter we will see that where boundaries dissolve it
often has less to do with skhole and more to do with responding to the imperatives of an approaching deadline.

In this chapter I ask whether there has been a blurring of boundaries between work and non-work. I show that there are two aspects to work/non-work boundaries; the structural and the conceptual. Structural boundaries refer to the actual timing and location of work. The structural boundaries have changed such that the boundaries are now irregular and unpredictable. Conceptual boundaries refer to the mental distinction that exists between ‘my time’ and ‘my bosses’ time’. In some instances these boundaries blur or dissolve altogether and these instances are a reflection of the new forms of work and technology associated with information technology. However, despite the changes in structural boundaries, some conceptual boundaries remain rigid as employees maintain a distinction between their work time and non work time. There would be no need for the creation of these boundaries if the time of work was the time of skhole, a time in which work and play merge, a time that is freely arranged and organised. The existence of these boundaries indicates that work time remains tightly bound to a time that is commodified and rationalised. It is a time that beats to the drum of the market place, a time that has the desire to infinitely expand, and thus the boundaries are drawn by the software workers in order to keep it in check.

1. THE CHANGING NATURE OF WORK-LIFE BOUNDARIES

In this first section I consider the ways in which the boundaries between work and non-work are affected by the way work is organised. In chapter one I outlined how E. P. Thompson in his now classic paper *Time and Work Discipline*, described the changes that occurred in the social ordering of time as industrial capitalism began to replace an agriculturally based economy. These structural changes led to a change in the conceptual
understanding of time. Here we focus on the changes that occurred in the boundaries between work and non-work. Prior to the industrial revolution he describes working time as irregular: 'Within the general demands of the week’s or fortnight tasks – the piece of cloth, so many nails or pairs of shoes – the working day might be lengthened or shortened' (1991: 371). The variation in working time on a daily basis was mirrored by variation on a weekly and yearly basis; 'The work pattern was one of alternate bouts of intense labour and idleness, wherever men were in control of their own working lives' (1991: 373). Working time varied according to the type of work that was done and was often closely linked to the rhythms of nature. Fishermen had to follow the tides, respond to weather conditions and chase shoals of fish when they came available. Thus their working day could extend into the night and they were exempted from some legislation that prevented work on a Sunday. Similarly those working on the land timed their day by the rising and falling of the sun and their working year by the changing seasons. Here, where time is shaped by task-orientation the demarcation between ‘work’ and ‘life’ is at its lowest; ‘social intercourse and labour are intermingled - the working day lengthens or contracts according to the task’ (1991: 358). In the factories owners and supervisors measured the working day by the clock, noting those who were tardy. Work time had a monetary value, and so could be accounted for by both employer and employee.

With these changes the boundary between work and non-work became a solid wall, the position of which was a source of conflict and contestation. On each side of the boundary there existed two conceptually different types of time; the time of work, belonging to another, and the time of non-work, belonging to oneself 52. Thompson argues that factory workers ‘accepted the

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52 It should be noted that work time and non-work time are but two of the many types of time we experience. As Adam notes; 'time ... has become stratified and separated into family, work, leisure, production and market time, to name just a few' (1994a:117). For the purpose of examining the
categories of their employers and learned to fight back within them’ (1991: 390). Fighting back within them entailed accepting this distinction between work and life but also, particularly when arguing for shorter working hours, using this distinction to gain support for one’s claims. Struggles for shorter working weeks first drew support from the need for more time to recover from work and later on the desire for more time for family and leisure (Hinrichs 1991). Workers maintained a clear separation between home and work in order to safeguard family time (Cross 1988).

Many suggest that the working time described by Thompson is now a thing of a past. Sirianni, highlighting changes to boundaries, argues that:

The post-industrial societies of the West today are in the midst of profound changes in the way they organise time .... The unfreezing of temporal rigidities and the blurring of temporal boundaries are evident in the organisation of the workplace; in the methods of sequencing and integrating major life activities such as education, work and retirement; as well as in the challenges being made the gendered distribution of time in the home and time in the labour market, and to the temporal structure of careers that provide access to opportunity in the latter (Sirianni 1991: 231).

She sees opportunities in the end of a standardised fixed linear model of time if the self-management of time can be put at the centre of a new politics of post-industrial time. She notes that the increased entry of women into the labour force has been chief among the factors putting pressure on the industrial work time model. This point is of increasing importance to Irish society, as one of the key stories of the Celtic Tiger economy has

boundaries between work and non-work I have packed much of the diversity of times we experience into the catch-all category of ‘non-work time’.

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been the huge increase in the female labour force.\textsuperscript{53} Increases in longevity, and an increasing proportion of older people in the population change the nature of retirement, while conflicts arise as those traditionally appointed the role of carer to the elderly are increasingly members of the full-time labour force. The boundaries between education and work are also blurring as learning and skill acquisition continues throughout one's working life. Non-work time itself is expanding, as the amount of time spent in work over the course of one's life has decreased over the last century:

A male employee born in the mid-nineteenth century spent roughly 30 percent of his lifetime hours in paid work, whereas his grandson born at the end of the century spent 20 percent, and his grandson, born in the 1950s, will spend only 10 percent (Beder 2000: 235).

Developments have disrupted the standardisation of work times such that within the world of work there is increasing diversity of working regimes and fragmentation of working time (Bosch, Dawkins et al. 1994). The high costs of production technology give rise to cost benefits if machinery is allowed to run continuously, thus shift working is increasingly required (Sirianni 1999). Others argue that it is the service rather than the manufacturing sector which is driving the spread in working hours ((Jacobsen 2002); (Lenhdorff 2002)). Fynes et al predict that the same process will be seen in Ireland:

Social, economic and technological developments will continue to intensify the demands for more flexible working patterns in both manufacturing and service sectors. Technology continues to remain less sensitive than humans to working time. Management will

continue to search for flexibility, functionally, numerically and temporally. For employees, the pattern of a working lifetime and time sovereignty may ultimately replace working time duration as a prominent issue. The question then is not when flexibility appears in the workplace but rather how it is brought about and by whom (Fynes, Morrissey et al. 1996: 10).

Paolucci presents a post-modern view of time. She describes a world in which the standardised and fixed times of industrial production have fragmented giving rise to an ever increasing diversity of temporal regimes, both within the workplace and in society at large:

A time measured in the function of rhythms and durations that are the same for millions of persons no longer constitutes the norm to which everyone must adapt. The pluralisation of temporal regimes runs along side the process of the differentiation of the spheres of activity which marks the post industrial society: schedules, durations, intervals and rhythms become more numerous and differentiated in an unending process of decomposition and redefinition. And while the spheres of temporal allocation multiply in this way, some of the boundaries between the different uses of time paradoxically become less binding. (Paolucci 1996: 147).

She argues that increasingly in work it is necessary to be able to manage inter-related types of time; the ability to do this is also important in other spheres of life. She further contends that in post-industrial society the machinery of production does not set the time-frames of the rest of society. This conclusion is derived from the extension of shift work as machinery operates twenty four hours a day. The time in which production machines are in operation is no longer synonymous with the time of the majority of the production force. As a result ‘the boundaries between work time and non-work time become more fluid and less binding: work invades non-work time and vice versa, and
thereby produces a fragmentation and overlapping of heterogeneous symbolic spheres' (Paolucci 1996: 163). This section suggests therefore that with the rise of a post-industrial society the nature of the boundaries between work and non-work have altered. Much of the evidence for the changes in work/non-work boundaries is drawn from studies on the organisation of work in the IT sector, and it is to the organisation of work within this sector that we turn to next.

2. BOUNDARIES IN THE IT SECTOR

Kunda argues that in high-tech workplaces there is a struggle over the subjective meaning and objective structure of time and its boundaries (Kunda 1992). Looking at the work and family lives of engineers, Perlow found that while they experienced high levels of control in their work time, they had little control over their work/non-work boundaries (Perlow 1999). In chapter one we saw how technical labour has been described as 'high-trust high-discretion' (Fox 1984). IT work has been characterised as having a high level of autonomy and little management supervision of the work process (Causer and Jones 1996). This autonomy is also evident with respect to working time where many workers are, within limits, free to determine their own starting and finishing times. This autonomy however operates within a culture of commitment to the workplace ((Peters and Waterman 1982); (Barley and Kunda 1992)) - 'self-control' replaces 'external controls' (Peters and Waterman 1982). Lowe and Oliver describe how in such a workplace some employees showed an 'ambiguity to the organisational/ individual boundary' (Lowe and Oliver 1991: 447). They report that this ambiguity was translated into long working hours. The interviewees are members of project teams and these teams were seen to be a source of peer pressure which was described as having 'an important regulating function' (447). Lowe & Oliver note, along with Legge, that a key contradiction lies at the heart
of human resource management systems; employees are extolled to be both individualists and team-members, to take initiative but also to toe the line ((Legge 1989); (Lowe and Oliver 1991)). Baldry et al describe this form of management as ‘Team Taylorism’ (Baldry, Bain et al. 1998)\textsuperscript{54}. The project deadline has been frequently cited by participants as the organisational feature which stretches their working hours into non-work time. Luhmann argues that the increased complexity of modern life expands the use of deadlines leading to time scarcity (Luhmann 1976). Sirianni criticises this view for conflating scarcity that originates in complexity with that which originates in unequal relations of power (1999). The IT sector provides support for her criticism. O’Riain, drawing from an ethnography of an Irish workplace, describes the deadline as ‘the mechanism by which management brings the intensification of time into the heart of the team’ (O’Riain 2000: 197). This notwithstanding, Luhmann’s wider concern is that the short term plan is being prioritised at the expense of the long-term and that because of its time-consuming nature democratic decision making, and with it concern for social values, is being bypassed. The relevance of his linkage of deadlines with scarcity and the consideration of social values is highlighted by looking at deadlines in IT. Through the use of deadlines, time becomes scarce and work time is privileged over non-work time. A decision-making process over the competing values of these two types of time is often removed\textsuperscript{55}. The nature of the work done also has implications for work boundaries. The work is knowledge based, concerned with the manipulation of symbols and signs, and involves problem solving and learning (Drucker 1986), processes that can take place inside or outside the workplace. Sirianni highlights the ways in which telecommunications alter the temporal structure at work.

\textsuperscript{54} Though there are problems with this phrase however as the work is not Taylorised (in terms of cycle time, timing etc).
\textsuperscript{55} I say ‘often’ because, as will be seen, there is resistance.
Teleconferencing allows project teams to stretch across the globe. Telecommuting moves work back into the home, blurring the boundaries that existed between the two.

Many of these features, the struggle over meaning, temporal autonomy, deadlines, global time, are evident in the experiences of the IT workers who participated in this study. It is to those experiences that I now turn. Eight instances where boundaries between work and non-work were disrupted were identified in the data. These were:

1. Starting and finishing time
2. Working at weekends
3. Tele-working from home
4. Being on call
5. Thinking about work at home
6. Work centred socialising
7. Work centred learning
8. Work centred travelling

The first two refer to the objective structure of work time. The start and finish of the working day is no longer tied closely to clock time; most of the interviewees could determine their starting and finishing times (within certain limits). Similarly the working week, while still nominally Monday to Friday, could on occasion spill into the non-work time of the weekend. The next five boundaries are characterised by the movement of work.

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56 Communication however is not universal but rather between with a few specific points (Boston, London etc). As Sassen points out it is global cities which serve as core locations for organisation, innovation, finance and markets.

57 Those that didn’t have discretion were often working shifts which liased with global teams. In these case the starting times and finishing times were fixed in order for the team in Ireland to either take over or hand over to teams in Asia or the US.
from the work space to the domestic space, as well as the spread of work time into non-work time. The final two reflect aspects of the high technology environment. This is a sector in which the knowledge base is constantly changing and also a sector which is particularly global in nature.

Four themes arose when these boundaries were examined. Firstly, when looking at starting and finishing times, weekend working and being ‘on call’, it was found that the boundaries between work and non-work in the IT workplace are often irregular and unpredictable. Secondly, an examination of weekend working and highly variable finish times uncovered how the boundaries were often under pressure and so became highly porous as work time spilt into non-work time. This was also seen when work-place socialising was examined. Finally it was found that at the boundaries, the meaning of non-work time was often contested. This was evident at a number of the boundaries, such as the boundaries around the weekend, when one was on call or when one was tele-working. These boundaries exist in a non-work space and time. Other boundaries were more nebulous in that they had more of a conceptual existence than a structural one. These boundaries are formed around work practices such as when one is travelling for work, when one is engaged in a work process that is stimulating and engaging, when one is learning a new skill. They were constructed in order to answer the question of ‘when is one working?’ On occasions the blurring of boundaries was seen to be problematic, on others it was not. Here it was possible to discern competing discourses. At one end of the spectrum the companies attempted to define non-work time as flexible, an additional resource that could be drawn on if required. At the other end were the instances in which the participants attempted to maintain boundaries by drawing on

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58 Some had to be available for core hours, such as between 10 and 4, but could vary their starting and finishing times outside these constraints.
59 That is, they weren’t formed in a space or time that had traditionally strong associations with work time or with non-work time.
definitions of non-work time as separate and distinct from work time. The interplay between these two conceptual schema lead to a variation in boundary types such that some were rigid, some blurred or some dissolved. Finally, the fourth theme that emerged is that often boundary conflicts were resolved in such a way that privately boundaries were maintained, while publicly they dissolved.

Each of these themes will now be outlined in reference to the instances of boundary crossing that were identified in the data.

**Boundaries are irregular and unpredictable**

The first theme that arose was that of irregularity and unpredictability in some of the boundaries between work and non-work in the IT workplace. With the spread of industrialisation, Thompson argues that the working day became more regular. Therefore, in analysing the nature of work/non-work boundaries, I examined whether the regular nature of the working day persists, looking first at the starting and finishing times of the participants.

For five separate weeks, each participant was asked to note the times they started and finished work. The results indicate that there is considerable variation in these times, particularly with respect to finishing time. The average starting time was 9.54 am and the standard deviation was almost 40 minutes. The greatest variation in starting times occurred on Mondays (standard deviation 71 minutes) and Fridays (standard deviation 64 minutes). The earliest average starting time was 8.30 am and the latest average starting time was 11.42 am. Greater variation was found with respect to finishing times. The average finishing time was 6.18 pm and the standard deviation was one hour and 24 minutes. The greatest variation in finishing times occurred on Tuesdays (standard deviation one hour and 54 minutes). The earliest average finishing time was 1.48 pm and the latest average finishing times was 10.18 pm. These results indicate
that the starting and finishing time of work are no longer regular. The timing of the boundary between work and non-work shifts from day to day, and from person to person. The boundary is variable and irregular and to a considerable extent self-determined. Many participants preferred these flexitime arrangements which allowed them the opportunity to fit their working hours into their life. With flexitime, employees can avoid the rush-hour, arrange to drop their children off at the crèche or even spend more time lying in bed in the morning.

I also examined the nature of the boundary that existed when the participants were on call. A number had to carry a mobile phone and had to be at certain times available to their employers if problems arose. Himanen describes the mobile phone not as a 'technology of freedom' but as an 'emergency technology' noting that 'since the first words on the phone by its inventor Alexander Graham Bell, to his assistant in 1876 ('Mr Watson, come here, I want you') the phone has been linked to a culture of urgency' (Himanen 2001: 32). This was particularly evident around New Year's Eve 2000, when there were worries that the millennium bug would interfere with software. Here an element of unpredictability is added to the variable and irregular nature of the boundary. This boundary also occurs within a non-work space. For those on call the quality of their non-work time can be tempered by their state of availability for work, so for example on New Year's Eve some participants were not supposed to drink in case they were called in, altering for them the traditional experience of an Irish celebration. It should be noted however that some participants did not vary their behaviour. For example, one drank beer and watched movies on his computer in the office on New Year's Day - a case of non-work time invading work time. These two aspects, the location of the boundary and its unpredictable nature, made it a boundary with the potential to negatively impact on the quality of non-working
time. Perhaps for these reasons as we will see later, the issue of being on-call was more contested than that of flexitime.

**Boundaries are under pressure**

The second theme that arose was that of work/non-work boundary pressure, particularly from company culture. In chapter four, we looked at Dermot’s strategies for dealing with the pressures to work late. Here we look at another aspect of the interview. As in quotes cited by O’Riain, (O’Riain 2000) he expresses the need to mark a clear point after which he will not be available for work:

Q. And in that situation there must be a pressure to work weekends and evenings?
A. Yes, and other projects do that. I don’t and as a result I don’t think the rest of the project team feel that they have to. Well, I’d say we do work more than your average or more than a standard amount of time or more than your contracted amount of time but I don’t come in at the weekends and the only time anybody else would, would be if they took a day off during the week and wanted to make up time rather than take a holiday they would come in on a Saturday and sometimes people do that but I don’t think anybody has ever come in and worked a 6 day week. But other projects they do and I think the key is there, if the manager does so a lot of people feel they have to then as well.
Q. And how come you don’t?
A. I’m more cynical than the rest. Once you’ve been exploited once you’re not so quickly exploited again and I don’t think it really helps because there is so much work to do that even if I was to work, if I was to do a seven day week it wouldn’t mean I’d get everything done, since I have three times as much work as I could possibly do.
(Dermot 3: 20)

Though there is pressure, Dermot doesn’t always respond to it. He creates a boundary around his weekend time which is he is not willing to cross. He is not as successful in drawing boundaries around his working day, suggesting that some
boundaries are more susceptible to pressure than others. Here he expresses in stark terms his cynicism - he views the pressure to extend his working hours as 'exploitation'. For this reason, though a junior manager, he resists the company culture. The cultural aspect to the pressure is evident when he describes how employees follow the example set by their managers, they 'feel' they have to stay in work, rather than being explicitly told they have to. This management of subjectivity is described by many to be an important organisational tool in these workplaces (Casey 2000). The employees are encouraged to identify with their organisation, to claim ownership over 'their' organisation's successes and failures, indeed to see the organisation as an extended collective family (Casey, 2000); (Sennett 1998)). One way in which this bonding occurs is through the manipulation of the social networks that always accompany any collective endeavour. Social events, instead of evolving organically, become a source of boundary pressure. Here the boundary occurs in times and spaces that are traditionally non-work, yet the pressure attached to them indicates that these times and spaces have been appropriated by the demands of the workplace. Two types of socialising occur in the companies. On one hand, there is the normal socialising that occurs wherever a group of people spend a large amount of their time working together. On the other hand, there are events organised and mediated by the company. For convenience I will refer to the former as informal socialising and the latter as formal. A number of factors could disrupt informal socialising. The larger the company, the less socialising that occurs. Informal socialising decreases when frequent travel is part of one's job. It also decreases when there is movement from one workplace to another. In addition, the older the age profile of the company, the less socialising that occurs. The location of the company was another important factor. One participant felt there would always be a social element to working in his company because
the workplace was located in the centre of town. He noted that in the Boston office, employees had to drive to and from their workplace and so socialised less. Another company was located on the periphery of Dublin and the interviewee noticed that this made it difficult to arrange to meet people informally after work. As we see in the following quotation, company instituted events were organised to fill the gap. Many of the participants explained that there was an expectation on behalf of their managers that they would attend these events:

Q. And do you have formally organised work dos?
A. Very much so yes. If they didn't do that there wouldn't be anything but they do. They're very good at that kind of thing actually, like going out to whatever, go carting and pub quizzes and that kind of stuff and they've huge arrangements for their Christmas party which is tomorrow night, so yeah they do put a lot of work into it.

Q. And is there an expectation that you should go to those things?
A. I've been told that I have to go to the Christmas party actually. I wasn't going to go, it's voluntary whether you go or not but my boss said to me I hear that your not going and I said yeah and he said I think you should go.

Q. And was that it, you just left it at that?
A. Yeah pretty much. I said is it because there are new people on the team and he says that and the existing people as well. But really if you don't go then there's no kind of team spirit...so it's a fair point actually and I was actually thinking I might go anyway.

Q. ... would you say most of the socialising is formal?
A. No but this is the Christmas party and they're putting a lot of effort into it and it's very heavily subsidised and it's a big deal and there will be speeches and all the rest of it at it so it's kind of like a company kind of a thing and as well as that I'd say the company has doubled in size, possibly more than doubled in size since this time last year so I think they want to get everyone on board and make it a big deal whereas if it's just the new people arriving and say the people who have been there a year or more stay away it looks bad so they are putting an effort into it and making it a big thing.
Q. And are partners allowed to go?
A. Encouraged to.
Q. Why?
A. I'm not sure. I suppose to make it more of a family place. They had a big family party actually on Sunday at the work place, I've never heard of such a thing before but other people that I mentioned it to said it's relatively common, it was like anyone who has children went out there on Sunday for kind of a kids party and because of the age of the people there I'd say the average age of the kids would have been about five or six, starting from quite small babies up to teenagers and they had about 60, 70 children there and volunteers came in and sort of did the face painting and Santa Claus or whatever, that was organised by the company as well.

(Dermot 3: 34)

This quote illustrates that socialising reflects an effort to create a workplace culture, it is important to go for 'team spirit' and to 'get everyone on board'. Speeches at these events glorify the company, celebrate its growth or, if times are difficult, urge employees to stick together. The pressure to attend is informal, the interviewee isn't directly ordered to attend. His manager suggests that attendance is important for the company. Dermot reports that he was thinking of changing his mind and going, so the conflict between his manager's wishes that he attends and his earlier decision not to go is removed. The boundaries between work and non-work are particularly blurred here, although the Christmas party is 'voluntary' Dermot knows he is supposed to go. Furthermore, in encouraging partners to attend and hosting a children's party, the workplace is becoming part of the 'family'. Casey describes the promotion of the family as a form of social organisation which binds the employee to the goals of their employer (Casey 1995). Another participant explained how he was encouraged to attend management organised social events, not by his managers but by the people he works with. The boundary between work and non-work has dissolved. Although these events are arranged by management
Aspects of the work they liked included its creative aspects, the novelty and variation, using new technology, learning new skills and the control they had over the work that they did. Yet despite this aspect of the work process, as the examples in this section illustrate, many of the participants placed limits on their working time. Himanen argues that the protestant work ethic centred around the optimisation of time excluded time for play at work - the playfulness of free time was located in Sunday. A process more suited to intellectual labour is one in which 'Friday (the work week) should become more like what Sunday (the leftovers of life) has traditionally been'[2001: 33]. In the following quotation we see that work time remains tightly bound to market place rationalities which disallow time for more esoteric pursuits:

Q. On work do you enjoy your work?
A. Sometimes. Not as much as I used to.
Q. Last time you said you were finding you were getting bored?
A. Yeah, that’s still the case. Occasionally interesting stuff comes up, the problem is that the interesting stuff is hard to justify as work that is interesting all by itself and unfortunately not very commercially useful for the company and that’s the way it goes.
Q. So what is it you enjoy about your work?
A. Em, that’s a hard question. Actually mostly what I like is researching stuff learning about stuff and implementing stuff essentially tinkering more or less and so for example if we do have like a new project that we need, like a whole new area to look at then I get the choice of the research implemented and the initial prototypes and stuff which is great fun but then eventually become boring when you have schedules and so forth. There was some stuff I was working on last month which was interesting for a while but unfortunately lasts for much less. The stuff I’m working on at the moment is interesting but I am being repeatedly asked by my boss to find some justification for it - even though we know we want to do it but we don’t know why.
Q. Is that a commercial justification?
A. Yes, we need to really to give a report that he can give to his boss.

(Kevin 3: 4)

This illustrates that the promise of IT work is only partially fulfilled. Given this, it is not surprising that examples of boundary maintenance were found when examining the playful, puzzle solving aspect of much of IT work. It is inevitable with this type of work that people will think about it outside work. People's minds aren't like computers that can be switched off at the end of the day. What is relevant here is how people approach this inevitable leakage that occurs. Do they attempt to retain boundaries between work and non-work or do they allow the boundaries to dissolve? Sirianni argues that information technologies demand high degrees of attention and so increased time away from work is necessary in order to recharge one intellectual batteries (Sirianni, 1991). It can be difficult however, as the following quote illustrates, to remove oneself mentally from the workplace:

Q. Can you vary your work?
A. Yeah, I think so, fairly much, there would be certain deadlines but a lot of them are self imposed, so I suppose yeah I could vary it and some days I have very slow days and I don't do much at all and then some days I have amazing days and I get loads done. My whole job is thinking so I'm a proper knowledge (worker) so the output of that then is writing documents, having meetings, talking to people, sending e-mails, all that kind of thing but the actual meat of it is thinking, so sometimes, I find anyway, I find it very difficult to do that kind of work in the morning so I do background reading and stuff and that kind of work can happen anywhere, if I'm walking along home sometimes I do it.

Q. Is that good or bad?
A. Well it depends, it's bad when it impinges on your weekend. Well sometimes it's enjoyable, like if it's going well and I'm really into it and it's interesting then it's fine. The bad part is when loads of hassly things come into your head.
Q. Someone said to me once that the problem was that if all your work is in your head, when you go home you have to bring your head with you. Do you find it hard sometimes to switch off?
A. Yeah sometimes, at the moment you see it's quite good because most of what I'm doing is scheming essentially, so I'm scheming and plotting to get my way or my agenda pushed and that's quite enjoyable, I think if I talk to so and so then I can get this. That's ok but yeah it's like Saturday morning I always wake up and think about work. Always. I wake up think about work. Think about it for about 2 hours and then my Sunday I'm not doing it so much. Whereas when I was off, like I'd 3 weeks off between jobs and 2 months off before and I just didn't. It was just amazing. I just spent all my time thinking about gardening you know. Whereas now it's like I haven't any time to think about gardening.
Q. That's interesting.
A. But at the moment I don't mind so much because the work is reasonably interesting and it's going quite well. If it was going badly it would be annoying and upsetting and that's where you turn to gardening.

This participant describes how her work process involves thinking and how this can occur at any time and any place. Some problems can as easily be solved on the way to work as they can within the workplace. It is interesting to note that she mentions this as a problem when it impinges on her weekend, suggesting again that the weekend boundary is conceptually a particularly strong one. Other participants described how they would mull over difficulties as they cycled home from work or took a shower. Thinking about work at home, as highlighted above, isn't necessarily seen as a problem. One participant said he had his best ideas away from the workplace. IT work can be creative and compelling; however, these features can act as a double edged sword. When work wasn't going well, the participants resented having their thoughts during non-work time occupied by work based problems. The participants varied in how they approached this issue. Some, such as the participant below, had no strategy for dealing with it and
accepted it as an unchangeable aspect of their working environment:

Q. Do you find yourself thinking about work at home?
A Yeah
Q. And do you mind that?
A Well it is an intrusion on your time but I suppose it's a big part of your life ... but what can you do about it, it's a large part of your life I suppose. (Karl 3: 256)

Others had developed strategies to limit their work thoughts. Linda, above, turns to gardening. Another participant would read a book unrelated to work, or try and watch a TV programme or talk to someone about the problem in order to get it out of his system. Another who worked part-time in the industry and part-time in two other jobs said that in order to be able do this she had to have the ability to ‘compartamentalise’ each sphere of activity; ‘and not think about the shop when I'm not in the shop and not think about my book when I'm not having book time and not worry about the XXX project when I'm not doing it’ (Susanna 3: 79). ‘Not thinking’ has become part of her strategy for dealing with a working life that has many separate elements, and so more boundaries than average (that is, in addition to the work/home boundary, she has to contend with the various work/work boundaries). A number referred to their conscious efforts not to think about work at home; ‘if I do catch myself doing it I snap myself out of it’ 60 (Sean 2:255). In these efforts we can see that the participants conceptualise work time as distinct from home time, and based on their construction of the two spheres and their belief that they should remain separate, they develop resistance strategies. These

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60 This individual said he rarely thought about work outside work. He occupied a non-technical role in the company and had a very instrumental orientation towards work, maintaining strong boundaries between work and non-work. Work was seen as a ‘necessary evil’ and not a source of interest or engagement.
findings support those of Kundas who described how in the high tech company he studied:

Most members find that work, by its very nature, is not limited to a time or place. Consequently the construction of time boundaries for an organisational self is essential. In the recurring imagery, work is impure and crazy; non work is pure and sane. Work is at once seductive and repulsive; non-work time must be protected. Maintaining a time boundary between the two is considered important and difficult and thought to require discipline and effort; one has to combat both the company's demands and one's own impulses, not easily distinguishable, to allocate more time to work and to the organisational self that is formed in its context. (1992: 167)

The interviewee below moved from working as a contractor in a large US multinational to setting up his own business. In the quote below he refers the commodification of his time and how he strongly maintains the distinction between work and non-work:

Q. Do you think about work at home now that you're working for yourself?
A. Yeah
Q. And would you work at home more than you used to?
A. Yeah, ... because in the past I really felt I'm selling my time and as soon as I get home I would never ever think about it or ever do any work at all at home. There was no deal, no loyalty deal at work. I was the most loyal of the contractors for hanging around so long but there was no feeling that if you worked very hard indeed that you would then be given a promotion or something. That wasn't going to happen so there was none of this proving yourself or coming in early and staying late or any of that kind of rubbish. So there was no chance I was going to do a single thing at home ever.
(Joe 3: 69)

This programmer's resistance is grounded in the maintenance of home and work as two separate spheres. The literature often describes attempts by employers to harness employees'
subjectivity (Garrick and Usher 2000). Part of the desired subjectivity of a ‘willing worker’ is the acceptance of the employer’s definition of work time, yet in the quote above we see a rejection of loyalty pacts and of work time. Again in the next quotation, the differentiation between work time and non-work time persists. Aoife below distinguishes between work time and her own ‘private time’:

Q. Would you ever, because you knew there was a busy period coming, would you alter your social life a bit?
A. No, because it’s never that bad, that I would have to take time out of my private time.
(Aoife 2: 369)

This distinction is important. Having a sense of time that is private to herself, a time that is and should continue to be separate from work allows her to draw boundaries between work and non-work. When describing her wedding she says that she wouldn’t have considered the demands of work when planning her wedding date, explaining that the wedding ‘would have been more important, to do my own thing in life, no I wouldn’t have worked it around it.’ (Aoife 3: 89). Here we have an orientation to working time in which ‘life’ is prioritised over ‘work’. This orientation is not universally held. In a later interview she compares the working culture in Ireland to that in the US, contrasting a US working culture in which boundaries have dissolved with an Irish culture in which boundaries are maintained:

Q. Have you ever been in the States, working?
A. No, but I know a couple of good mates that are there. It’s also about being there longer time, people go to work early and leave late, but they are less efficient, less relaxed, they have meetings about meetings. The physical appearance is less important, which I was surprised by. They don’t give a shit what you wear. But people will be there for hours and hours every day. But they have gym, swimming pools,
all sorts of facilities, so in fact people will be away from their desks for longer than you would be here. But overall they will be in the area and looking like they are in the office longer. But they get a lot less done in the same time because of meetings.

Q. You have facilities here?
A. We have a gym and restaurants, but nowhere near as much. People use them, they use the gym outside hours, before or after working hours. Or during the lunch hour, but they wouldn't stay late because they have stayed in the gym for 2 hours at lunch. It's more like your working hours are your working hours and outside is outside. Whereas over there it seems to be like people are working in a place like that and are really involved in that, and their social life is work.

(Aoife 2: 404-407)

The US culture which she describes is one in which 'life' and 'work' have become intermingled. People don't dress differently in work than they do in their non-work time. They spend time in their work doing non-work activities. They spend more time at work, and less time at home. This picture of the US workplace is similar to that described by Hochschild who, as was described in chapter one, argues that US professionals are increasing their working hours because work becomes the site of social interaction that non-work used to be (1997). These US professionals do not maintain a distinction between 'work time' and 'non-work' time. The Irish in this example selectively adopt aspects of the US culture, for example their working day is more porous to non-work activities (here going to the gym). However, in Ireland this is within the context of a working day that is bounded (they don't stay late to make up for time taken out). Conceptually the time of work is seen as separate and different from the time of non-work. O'Riain also noted that the developers he studied incorporated aspects of an US work culture while rejecting others, describing them as 'global locals'(O'Riain 2000).

In this study, limits to working time particularly came into play in instances when work's importance in the participant's life
decreased, either because aspects of their non-working life increased in importance (such as with the birth of a child or success in a non-work field of endeavour) or because the value of their work time declined. For example, one of the companies studied had experienced a large and sustained drop in its share price. Shares which employees held became valueless and wages levels were frozen. With the decline in company morale came a decline in weekends worked. As the employees’ working experience and their work time was devalued, their non-working time rose in importance. Ability to resist, coupled with the desire to resist, meant that within this company fewer people were spending their non-work time at work.

Conceptual distinctions between work time and non-work time were also evident in a different way in the time diaries filled in by one participant. The diary reflected time spent travelling for work within the US, in which the participant included both times he was interviewing clients and time he spent travelling as part of his working day, though the travelling time occurred in the non-work time of the weekend. This shows that although work time has spread into the non-work time of the weekend, the interviewee still maintains a conceptual distinction between the two. Time spent on an airplane was not considered ‘time off’ because he has no control over how he uses this time. This conceptual distinction may seem to have little impact on his work while travelling, given that he did work weekends and late into the night during the week. However, it allowed him when he returned to Dublin to feel justified in working less hours, in return for the long hours worked away. He noted that he worked his longest hours when he was travelling; perhaps the weakness of the boundaries here can be accounted for by his separation from the domestic sphere. It is harder to construct ‘home time’

61 Devalued both in a monetary sense (they were paid less) and in symbolic sense (their company became a less important player in the field, and hence the work they did for it was devalued).
when staying in a hotel. It should be noted that though the participant said he reciprocally limited his hours while in Dublin, he worked some of the longest hours noted in this study. This would seem to indicate that the strategy of arranging work and non-work time in a flexible way, swapping one for another, is not as successful as the strategy creating an unassailable boundary around the traditional non-work time of the weekend. It is harder to win 'home time' back than to prevent it being lost in the first place. In contrast another developer explained that if he was travelling for work on a Sunday he would be expected to work as normal on Monday. He resented this as, like the participant cited earlier, he considered time spent in a plane on company business to be time spent working. To avoid losing his weekend, he now only travelled during the weekdays, leaving on Monday and returning on Friday (Dermot 3: 533).

Other instances of boundary maintenance were identified in the data. As noted in an earlier quotation, in the IT industry the boundary around the weekend is often under pressure. Though in the sixty nine diaries received, only three Saturdays were worked⁶² and two Sundays⁶³, a number of participants referred in the interviews to weekends worked. They varied in how often they were willing to work weekends. Some, like Dermot quoted earlier, felt the weekend should never be spent working. Others accepted working a couple of weekends as long as it occurred on an occasional basis. Weekend working was seen as an infringement that would be occasionally accepted as long as it did not become routine. Indeed, Table 6.2 indicates that very few in this sector usually work evenings (5%), or do nightwork (2.8 %), or work Saturdays (6%) or work Sundays (3.1 %).

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⁶²One member of a marketing department worked for one hour, a developer for four hours twenty five minutes and one member of the financial department worked for just over eight hours.
⁶³The member of the marketing department also worked for ten hours on the following Sunday, eleven and a half on another.
Table 6.2: Estimated percentage of persons in employment (ILO) for Nace 72 by Working Patterns; 2001 Q2

<table>
<thead>
<tr>
<th></th>
<th>Do you work evenings? (%)</th>
<th>Do you do night work? (%)</th>
<th>Do you work on Saturdays? (%)</th>
<th>Do you work on Sundays? (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually</td>
<td>5.0</td>
<td>2.8</td>
<td>6.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Sometimes</td>
<td>20.7</td>
<td>7.9</td>
<td>34.9</td>
<td>23.6</td>
</tr>
<tr>
<td>Never</td>
<td>64.8</td>
<td>79.6</td>
<td>49.0</td>
<td>63.2</td>
</tr>
<tr>
<td>Not stated</td>
<td>9.7</td>
<td>9.7</td>
<td>9.7</td>
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</tr>
<tr>
<td>Total</td>
<td>100.2</td>
<td>100</td>
<td>99.6</td>
<td>99.6</td>
</tr>
</tbody>
</table>

Data from the CSO, special extraction for Nace 72

The emphasis on ‘occasional’, on working weekends only in exceptional instances, indicates that conceptual boundaries protecting the weekend as the realm of non-work time exist. If the incursion occurred frequently, the boundaries would become completely blurred. It would not be possible to define the weekend as belonging to oneself. The participants accept an occasional loss of their non-work time, but they are not willing to permanently give it over to work. Refusal to work weekends often came after a few years working in the industry and was coupled with cynicism about the way in which work was organised. Though the studies were conducted at a time of skill shortages, labour market strength alone does not account for the ability to refuse weekend working. Many of the participants referred to a time early in their career when they worked weekends more often. The approach of a deadline was the chief management justification for the expectation that the weekend would be worked. Time spent working in the industry led the developers to see the deadline as an artificially imposed construct. The ability to resist was bolstered by this experience and confidence in one’s own ability that came with experience.

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64 Artificial in the sense that the deadlines were flexible. The developers questioned the relationship between deadlines and project planning, some feeling that unreasonable deadlines were due to poor project management others that they had no relationship to project planning.
When looking at participants who are 'on call' I found one of the clearest examples of resistance to boundary crossing. In the previous chapter, I cited the example of Dermot's company in which an attempt was made to have his team 'on call' to their counterparts in the US team. Although this team was being offered time in lieu, they rejected this 'flexible' time, in preference to maintaining their work/non-work boundaries.

With teleworking, the time of work is conducted within the space of non-work. For the participants who work in their homes during the day, most did it on an occasional basis which was connected with achieving a specific task, normally the writing of a report or document. It was preferable for them to do this work from home because, freed from constant interruptions, they could achieve their task within a shorter time frame. Most of the offices they worked in are open plan and noisy. As referred to in an earlier chapter, at any particular time the participants are working on a number of projects. This means that when on site they are likely to be asked questions about any of the tasks they are involved with, making it difficult to concentrate on one particular goal. Ironically, at home they find the time and space empty of the many demands they face at the workplace, so it is in the domestic sphere that they are able to focus on work tasks that require a longer period of concentration. They work shorter hours at home but report that the work is more concentrated. Perlow also noted that working from home could be beneficial as interruptions are avoided (Perlow 1997). One programmer worked regularly from home and had this written into his contract as he wished to avoid the long commute to his workplace. Though he is physically in a non-work space, he attempts to recreate the timing of work:

Q. How do you find working at home, do your hours change for example?
A. Yeah definitely.
Q. So what sort of hours would you be working at home?
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Q. How do you find working at home, do your hours change for example?
A. Yeah definitely.
Q. So what sort of hours would you be working at home?
A. Well I'm actually pretty, I try to keep it the same hours I'd be working if I was working in work but I do take the odd nap at about half 4 and that's brilliant actually taking a nap, it's incredible, I get up later, clock off work earlier, by half an hour generally, nothing serious. But also the working environment I have at home, I have a terrible chair and desk so by the end of it I've got a sore back and a headache.

Q. What about lunch when you're working at home, do you take a break or do you work through lunch?

A. Definitely take a break, I generally cook myself up a fry or something.

Q. Do you have a particular time at home?

A. It's a different time from in work, when I'm in work I usually have lunch around quarter past 1 to 2, when I'm at home I don't have to synchronise with other peoples lunches or anything like that so I just have lunch around 2 and eat till 3.

(Fergal 2: 101)

The quote above shows that when at home, there are definite differences to his working hours. Because he doesn't have to commute he can get up later. He takes his lunch at a different time because he is taking it alone. He takes a longer break in the afternoon so he can have a nap and he finishes earlier. What then does he mean when he says he keeps the same hours? When he takes his lunch, he takes an hour, as he would when he is at work. He replicates the temporal structure of the working day, a clear beginning and end, demarcated break times. At home his work time does not permeate his entire day. This can most clearly be seen in his use of the phrase 'clock off'. He does not actually clock off, but the phrase emphasises that he is moving from the time of work to the time of non-work. In this we have a strong statement of the attempt to maintain a distinction between work time and non-work time. Tietze and Musson in a study of professionals who work at home described how they found that:

internalized mechanisms, in the sense of Thompson's (1967) internalized time discipline, provided a mental default about when to begin and end the working day.
... This time discipline was enacted through symbolic acts and artefacts such as wearing particular clothes, or following particular bodily regimes, or entering specific locations such as an office or a study (Tietze and Musson 2002: 324).

In the example above we see the recreation of the temporal routines of work in the non-work sphere.

In an earlier section I referred to pressures to attend work social events. In looking at these I found another example of boundary maintenance, of a participant defining her own time in opposition to corporate time. This participant did not go out on Fridays, with the company, instead she did 'her own thing'. In this we see a boundary being maintained between work and non-work time. The organisation of company social events can backfire on the company. The same participant, describing low morale in her company, cited the type of social event (a black tie dinner) as a problem along with other complaints about delays in the review process. Both indicated to her that the management were 'excluding a lot of people. It's not a big thing, but it's the kind of suiting the big wigs' (Catherine 2: 281).

Up to now I have been describing instances where boundaries were maintained - however, other instances where boundaries had dissolved were noted. When a boundary has dissolved an employee no longer describes work based activity taking place in non-work time as 'work'. The one area where participants did work at home in the evening was when they were learning. Here the boundaries between work and non-work were at their weakest. Learning is an essential aspect of the knowledge worker's working life. However this learning is not necessarily linked to the particular project one is working on or the particular company one is working for. Keeping abreast of new developments and learning new skills is felt to be necessary in order to be able to remain within the industry. In order to avoid
interruption most learning occurred at home, outside the workplace and outside normal working hours. Perhaps this is the most subtle way in which work time has colonised non-work time, in that work time is both de-coupled from the particular enterprise and integrated into one’s non-work time⁶⁵.

**Private vs Public borders**

A final theme that arose was that the outcome of the contestation of work time boundaries often resulted in a private maintenance of boundaries coupled with a public dissolution of them. Some developers were successful in negotiating either time or money as recompense for their non-work time. However these negotiations occurred in secret, leaving the corporate definition of non-work time as an optional resource unchallenged. Some participants received time off in lieu for working weekends, though not for working late on the weekday. In many cases where time in lieu was offered it was offered on an informal basis. It was not a right automatically available to the employees, rather it was a concession that had to be asked for. This can be read as the companies’ efforts to define weekend time as optional or additional work time, a resource to be tapped if the need arises. This definition is challenged and opposed when developers ask for time in lieu. By doing so, they are insisting that the company recognises that they have lost some of their personal time and so should be re-reimbursed for it. One developer explained that time in lieu could be received as long as one was ‘discreet’ about it. Another developer in the same company said that the company did not give time in lieu for weekends worked. This secrecy and the hidden nature of these agreements indicates that while the company will capitulate under pressure, it does not want to publicly alter its definition of the weekend as flexible extension of the working week.

⁶⁵ In an interview with Linda 3: 257, she described learning as 'personal development'.
Negotiations around benefits to be received for working New Year's Eve 2000 were also often organised in secret. In the quote below we can see the pressures placed on the programmers. Working proves one's loyalty to the company - however, the programmers’ loyalty had limits. In this case the programmers wanted to put a price on their non-work time, monetary recognition that the time didn’t belong to the company but was something that had to be bought. It is interesting that, as in the cases discussed above, it is those new to the industry who are particularly susceptible to the pressure. Also, not only does Joe negotiate his time off in secret, he advises the other programmer to use deception as a strategy for resisting company demands. In both instances the company definition of non work time remains publicly unchallenged:

A. Yeah they were in all night (on New Year’s Eve). I think they did it just to show their loyalty at any opportunity they jump at. So my boss went to work at 8 PM the night before and he stayed till 8 AM, ... They had to buy us all into coming to work that morning and there’s rarely any industrial relations issues at work but it was the one thing where people said I really won’t do it for that much money.

Q. You were saying ..., the last time that you got a deal where you got days of in lieu?

A. Yeah so I’d agreed days off so I felt they didn’t have to come up with some big number to pay me because I had a few days off ...

Q. Do you know did anyone else get that sort of deal?

A. I think one other person might have negotiated something but everybody else was strong armed into (it). Particular... one guy had joined quite recently and they said you really have to do it and it was really true. He didn’t really have to do it and because he was young and it was his first contract he felt .....Whereas he really should have said - you don’t want to go into conflict - but he should have said something like I’d love to but I’ve got this big family commitment already or something, I just can’t get out of it. I’d really like to do it. Not like I’m not doing it and then allowed himself to be bought out of it, but anyway.

(Joe 2: 10)
The theme of private maintenance/public dissolution of boundaries occurs again when looking at people who bring their work home in the evening. In the following quote Dermot brings a briefcase home signalling that he intends to work, publicly dissolving the boundaries. Yet the briefcase remains unopened, privately boundaries are maintained and work is kept separate from the non-work sphere. Note also that, like the participants mentioned earlier, he finds himself thinking about work at home, though his use of the phrases such as ‘dream’ and ‘subconscious’ indicates that he feels he has little control over this:

Q. I was going to go back to a question I meant to ask you earlier when you were talking about all these projects and everything, do you find then that you take your work home with you in that you worry about it?
A. I bring it home with me and leave it in my bag.
Q. And do you think about it?
A. I do. I dream about it, well not dream about it but I will think about it in bed before I go to sleep. But I don’t really do that much. I don’t know maybe that helps. You kind of like come to decisions sort of subconsciously. I very rarely would actually bring home work and sit down at a desk and do it.
Q. Why not?
A. Just once you’re at home, kind of out of sight out of mind, just too lazy.
Q. I know I’ve got a huge amount of books I said I’d read over Christmas and I just realised I only go home for four days.
A. You’re not going to read any.
Q. But I do bring them home.
A. Well I bring home a bag every day and I do it more for show now more than anything else these days, but I bring home my diary, a great big A4 diary every day.
(Dermot 3: 176-185)

The idea that there are two competing definitions of time, a corporate work-based one and a private non-work based one can be further supported when looking at work based socialising in greater detail. The quote below illustrates that there are two
types of socialising; informal drinks with friends on a Friday night and official work organised events. Though both events take place in a non-work social sphere, they are also work spaces. At both one has to be mindful of how one's behaviour is being measured by workplace standards. Neither space or time is separate from work. Furthermore, though both are essentially arenas in which to get drunk with the people one works with, there is a difference in how both are perceived by the company. Drinking on a Friday night with work friends is considered detrimental to Johnny's career, while drinking at company organised events is seen as important to his standing in the company. The importance is referred to in terms of being a 'team player':

Q. And when you say it (going to the pub on Friday night) didn't do you any favours, do you mean by that that there was no point in going to them because they weren't useful to you or do you mean not going to them was harmful to you?
A. I think that it's harmful to go to a lot of them and get a reputation as someone that goes to a lot of them, I think that people take you less seriously.
Q. Is that not a bit contradictory then because you're supposed to come along? They organise these things.
A. Yeah going to the official ones, yeah there's a balance. I mean you should go to the official ones but it's again I think it's probably best not to be the last person to leave but the official ones are fairly rare. But the unofficial, Friday night crew, it's probably not best to be at those all the time.
Q. So do you see the formal work dos as important in terms of your career to go?
A. I mean it's important in terms of your career, I don't think it will particularly affect you one way or the other, just in terms of general impression people get of you, people prefer to see you at it, team player, socialise in the company.
Q. Is that an impression you get or can you put your finger on where that impression comes from?
A. Where that impression comes from?
Q. Yeah
A. It's hard to put your finger on it, I mean an impression is very difficult to put your finger on but
it's only things people say. They expect to see you at these things. You do have to come up with a reason not to go. You can't just say I'm not bothered. It's considered negative, but it is always best if you don't want to go just to show up and then leave early. I go when they're on and quite enjoy them but I leave early.
(Johnny 3: 17)

The un-social nature of the company 'social' events is highlighted by Johnny's instance that while it is important to go, it is also important not to be the last to leave. These events are more about raising one's profile in the company and proving oneself as a team player than about having fun. Enjoyment is a by-product, as seen in the last phrase 'I go when they're on and quite enjoy them but I leave early'. Work time here has colonised 'non-work' time to such an extent that socialising outside a work mediated framework is frowned upon. Here then we have a public view of non-work time, as a time in which one proves one's loyalty to the company. Privately, by leaving early, the boundaries between work and non-work are to a certain extent maintained.

3. CONCLUSION

In this chapter I have argued that boundaries between work and non-work can be irregular and unpredictable. Working time has always been contested, and no more so than in these workplaces, at these boundaries. A corporate conception of non-work time as emergency 'work time' competes with the employee

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66 The obvious question to ask about this is whether different types of people behave differently. Explanations for the pull factor could be found in looking at aspects of life outside work. Perlow noted the presence of 'hard stops' in her research in a US software company. These were obligations outside work, usually to child-care or to a training course, which would take priority over non-work time.


Further research would be necessary to establish how an activity becomes a 'hard stop'
conception of non-work time as private and separate from work time. On some occasions boundaries are maintained and on others they dissolve. In Ireland the boundaries seem to be more robust than in the US. It is the creation of a conceptual separation of work time from non-work time which enables some of the participants to resist the spread of work into areas of life that are traditionally separate from work. Often this conflict is resolved in terms that do not publicly challenge corporate definitions of work time.

This chapter opened with a discussion of the task orientation of pre-industrial societies. The modern workplace is described as different by Ciulla in that ‘time measures and structures tasks, rather than tasks measuring and structuring time (Ciulla 2000). However many aspects of the IT workplace indicate a re-emergence of task-orientation; the episodic nature of the working year which follows occasional increases and decreases in workload (O’Riain 2002), the variability of the working day and the project based nature of the work. Many of the participants said that it didn’t matter how long they were at work as long as the work got done. While these statements may superficially imply that the work is task orientated, it is fundamentally different from in pre-industrial society in that these tasks operate within a clock-based structure. The format in which work time is presented has altered, but not fundamentally changed; work doesn’t end at a particular hour of the day, instead the project ends on a particular day in the quarter. The participants’ persistence in perceiving boundaries between work and non-work highlights for us that though the working hours are flexible, these workplaces are still regulated by abstract time. The clock-in machine has been replaced by the machinery of organisational planning, both are technologies for measuring and ordering time. A final conclusion would therefore be that though the boundaries not measured by clock time, the
work process remains embedded in a commodified time in which time is measured according to calendars rather than the task.
In this chapter I examine the job mobility of software workers. The findings presented in this chapter are perhaps more than others located in specific times; firstly the particular time of the Irish economy, a time of unrivalled growth, prosperity and tight labour markets. Intersecting this time is the time of the participants’ lives, the first stages of their working lives, a time unhindered by family and financial responsibility. This chapter will examine the experience of being young and skilled in a booming economy, how the opportunities and freedoms provided by the intersection of these two times impact on the place played by work in their lives.

In the first half of the chapter I outline how the Fordist norm of a job-for-life has been displaced. The empirical evidence suggesting that such a change is occurring is considered, as is the mobility experienced by my interviewees. I argue that mobility occurs as a response to particular economic and organisational conditions and represent a successful strategy for operating within these particular conditions. I argue that these workers be considered time nomads choosing the nomadism of mobility over the stationary ‘job for life’. The second half of the chapter considers the implications of such a strategy. Sennett has expressed concern that job mobility undermines the creation of a strong personal narrative. This narrative is the essential precursor to a ‘character’ which can withstand and challenge the detrimental aspects of work organisation in a capitalist society (Sennett 1998). In the second half of the chapter I address Sennett’s notions of character and the relationship of a job for life with the formation of a strong sense of character. Mobility undermines the importance of the workplace in identity formation. However just as nature abhors a vacuum, in the absence of one space of social interaction, another is created. My analysis differs from Sennett’s in that he pictures a mobility
which has been imposed rather than that which is chosen voluntarily. This differing focus allows me to uncover the identities and relationships formed outside the framework of the work-organisation. I argue that the nomadic strategy adopted results in changing expectations of work and the role work plays in one’s life.

1. A WORKING LIFE; FORDISM AND POST-FORDISM

Under post-Fordism some theorists argue that the expected norm is now a working life that encompasses many different workplaces and many different skills. One has a portfolio career rather than a career based around a single occupation and a long-term relationship with at most a couple of workplaces (Handy 1984; Sennett 1998; Beck 2000; Arthur, Kerr et al. 1999)). Colin and Young describe it as a change from ‘employment’ to ‘employability’ (Collin and Young 2000). As Bauman eloquently put it ‘Marriages ‘till death us do part’ are now a rarity: the partners no longer expect to stay long in each other’s company’ (Bauman 2001: 23). The traditional retirement gift was a clock, a symbol of time measured, organised and dedicated to the enterprise. Both gift and metaphor, the gold watch implied permanency, diligence and respectability. In contrast the temporal technology and metaphor for today is the digital watch, which was first seen as no more than a gadget and is now cheap and disposable.

The norm didn’t hold for everyone. There was unemployment and redundancies, some occupations such as docking were permanently insecure. Many women weren’t expected to spend their lives in paid employment, and legal barriers such as the marriage bar in the Irish civil service, would ensure that for some it was impossible to do so. For the majority a job-for-life was far from the reality. In the UK in 1960 half of the male manual workers and two-thirds of the female workers had been with the same employer for five years or less (IDS 1995). Fordism
was not a universal phenomena, it existed for a particular set of people, living in particular areas at a particular historical time. However, it did set a standard, an expectation about work and the role work played in one's life. For men, the aspiration to permanency in work was a realistic aspiration. Crouch, describes this as the 'mid-century compromise':

According to the theory of the mid-century compromise, men (who constitute the majority of the workforce) should obtain full-time employment in a firm or other organisation and either remain there or move to one or more similar organisation for a large part of their lives, both in terms of hours within the year and years within their lives (Crouch 1999: 68).

Auer and Cazes argue that the image of 'the staple, long tenure salaried industrial labour markets of the 1970s and 1980s' has been replaced in the popular mind by an image of 'a rather volatile, basically unorganised and unregulated labour market not only in the ICT sectors' (Auer and Cazes 2000: 2). In the following section I outline the decidedly mixed evidence which supports the claim that the job for life no longer holds.

Two trends have influenced this belief. Firstly, the strategy of 'downsizing' has seen companies, particularly in the US, lay off core workers irrespective of the economic cycle. Secondly there has been an expansion in the numbers of people working on temporary contracts. The data on how widespread these changes are remains inconclusive (Kunda, Barley et al. 2002). In the US between 1986 and 1996 employment in temporary services increased by 10.3%, while total employment only grew by 1.7%. In the EU the number of people in temporary contracts has also increased steadily over the five years from 1995 to 2000, however the rise at just under 2% is much less dramatic, and in Ireland there was no increase in this period (European 2001). In the US there has also been a change in the type of occupations found under temporary contract; office, clerical and medical work have declined while industrial, technical and professional
work has increased (Kunda, Barley et al. 2002). That is, jobs which traditionally were seen as ‘permanent and pensionable’ are now neither, and this has fuelled fears that permanency is decreasing across the board.

Arthur et al studied the career history of 75 participants, spread across nine distinct occupational groups in New Zealand over a ten year period. They found a high level of mobility with 84% of the participants changing career at least once, leading them to conclude that ‘in the sample as an whole, mobility emerges as a prominent feature of emerging work arrangements’ (Arthur, Kerr et al. 1999: 31). They identify ‘a remarkable paradox’ in that though there is a high instance of job mobility, the participants in their study reported a strong pattern of relative job stability (1999). Though the study was conducted in times of economic instability, in the majority of instances mobility was voluntary.

Doogan cites data on long-term employment rates in the UK and in Europe to argue that that jobs are not becoming increasingly impermanent ((Doogan 2001); (Doogan 2003)). He criticises those proponents of the insecurity thesis who lump both part-time and temporary workers together in a ‘peripheral’ sector, as by doing so, they assume that both categories of employment are equally precarious. He argues that it is necessary to re-consider the nature of part-time employment (which makes up the largest group in the category), as this employment is not necessarily impermanent or peripheral. Indeed a quarter of the increase in the long-service workforce in Europe is attributable to part-time employment. He concludes that in the 1990s ‘contrary to the anticipated decline in long-term employment ... there has been a significant and widespread increase in long-term employment’ (Doogan 2001: 423). These increases can be found in both the private and the public sector and ‘do not support a distinction between ‘traditional’ and ‘new’
industries’ (Doogan 2001: 428). He argues that it is incorrect to conflate job stability with job insecurity. He shows that there is a greater sense of job insecurity despite evidence that job stability has increased. This sense of insecurity originates in a number of spheres such as ‘the costs associated with job losses, diminished social protection systems, particularly in the form of state welfare provision, and a perceived loss of trade union bargaining capacity’ (Doogan 2003: 18).

In Ireland the absolute levels of those in long-term employment have grown by 58% between 1992 and 2000. The rate of long-term employment has declined from 39.9% in 1992 to 30.9% in 2000, however this is due to increased recruitment which followed a rapid expansion in employment (that is, if more people have just started to work, those working long-term will make a smaller proportion of the whole). If these figures are disaggregated according to gender, we can see that for women the absolute numbers of those in long-term employment has increased (by 52.8%) however for men it has slightly decreased (by 0.5%) (Doogan 2003). Doogan does not cite sectoral or occupational data at the country level so it is difficult to know in Ireland what areas/occupations may be responsible for this decrease. Europe-wide he argues that in terms of occupations the absolute number and the rate of those in long-term employment in the managerial, professional and technicians categories has increased. In terms of sectors the absolute numbers in long-term employment in the ‘real estate and business’ sector has grown by 105%. This is the sector in which research and development activities and computing activities are to be found.

While this data is convincing, it does aggregate a number of different sectors within a number of different countries. Within these figures, sub-sections of employees could be going against the general trend. For example. Eurostat figures indicate that

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67 By long-term he means those working for the same employer for more than
among a certain group of high-skilled employees job mobility is increasing. In Ireland in 1997 11.8% of highly skilled women working in science and technology changed jobs within a two year period. This represented an increase of 0.8% on 1995. Among men, the rate in 1997 was 9.8% and this represented a 1.7% increase on 1995 (European 2001). Particular sub-sectors, such as IT, are frequently identified as ones in which job mobility is particularly high. In Silicon Valley annual turnover is around 35% (often higher for smaller firms), on average people move jobs every two years (Saxenian 1996). All but two of the participants in this study were permanent employees, many of them moved jobs frequently. This research, therefore, suggests that high rates of mobility can be found in very specific sectors of the economy. These high rate of mobility are not necessarily an indication of a society wide structural change, but may reflect the nature of specific labour markets.

The implication of much of the end of a job-for-life discourse is that the end of a job for life is a result of corporate restructuring which results in an unwelcome precariousness. This is not necessarily the case. Mobility may also reflect change in economic cycle, and thus result from employee strength in tight labour markets. Savage et al argue that increased mobility between jobs is evident in a new section of ‘service class’ workers. This ‘entrepreneurial’ class consists of professional, managerial or technical workers whose career development progresses in moves from company to company within a relatively narrow geographical area (Savage, Dickens et al. 1988). Among this class of worker an occupational labour market has replaced a labour market based on organisational career.

Organisational careers, typified by the traditional career in banking, assumes that the employee will gradually work his or her way up the career ladder within the same organisation. Occupational careers are more discontinuous as the careerist
uses ‘spells with different employers as stepping stones on a linear, upward career’ (Crompton and Sanderson 1986). While this study cannot assess whether the experience of the software workers examined is unique or evidence of a society wide trend, it can focus on the more modest proposal of examining, in this instance, how and why mobility operates in practice. It can address itself to the questions as to whether shortened job-tenure is a result of employee weakness resulting from corporate restructuring or strength emanating from tight labour markets.

The Experience and Practice of Mobility

The IT workers I interviewed expected to change jobs frequently. One explained that he’d left his previous company ‘because they didn’t pay very well, weren’t very well organised, even if it had been both those things I think after three years I’d prefer to move’ (Even 3: 24). Another commented ‘I had been there two years anyway so I was probably ready to move’ (Aoife 1: 151). When speaking of their working life they used the rhetoric of movement rather than stability. There are many ways in which mobility can occur; one can be pushed out, one can feel there is no choice but to leave, one can choose to leave. At the time of my study, none of the participant was forced to leave their employment. All but two had permanent contracts. The two that didn’t have permanent contracts, chose contract work because they felt it offered them more freedom to determine their working conditions. Only seven out of the twenty-one were in the same job in 2002 as they had been in 2001. Of the movers, all but two had moved to entirely new workplaces. Most people planned to move after two years. In the course of the year some had been in three different workplaces. As my fieldwork ended, and the US and Irish economies went into downturn, almost a third of my sample had been made redundant. Movement was forced upon them. My interviews were conducted before the layoffs began, at
a time of skill shortages and permanent contracts. During my fieldwork, employees moved out of choice.

This mobility may be informed by a number of timing specific factors. Firstly the study was conducted at a particular time in the working careers of the interviewees. All were between 22 and 32 and so were in the first 10 years of their working lives. With longer time spent in education and earlier retirement, working lives themselves are shorter (Crouch 1999). It is possible that the high rates of mobility experienced at this stage of the working life decline at the latter stages. However, even if this is the case, it still holds that for a quarter of their working lives, high levels of mobility were experienced. The second timing factor is the particular moment in Ireland's economic history in which this study was conducted. This movement is occurring at a time of tight labour markets and skill shortages. In previous generations mobility was very different, as lack of employment opportunities resulted in mass emigration out of the country. For this generation the move is within the city rather than out of the country, and it is in order to get better jobs rather than a job. The choice between emigration in the 1980s and working in IT in the 1990s is a particularly Irish experience. Savage however noted a similar dynamic operating in parts of England in the 1980s. Traditionally he argues that professional careers were developed within one company. Occupational mobility was accompanied by high geographical mobility as employees moved to different sites in different cities while remaining within the same company. In contrast, a new service class has developed with relies on mobility between companies within a particular geographical area. This new class is not geographically mobile, instead they move from employer to employer. They do not move

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68 This age profile is far from atypical. In 2000 just over 75% of people working in Nace 72 were under 35 (source: Quarterly National Household Survey special extraction, CSO)
to new places to live but do move to new places to work (Savage, Dickens et al. 1988).

There were a number of reasons cited by the interviewees for moving between jobs. Movement between jobs occurred for more pay, more status or promotion and the ways in which the structure of the economy reflects on the choices made by the individuals can be most readily seen here. Pay rates are negotiated on an individual basis at regular reviews. If pay scales exist, most of the respondents weren’t aware of them. Many were unsure as to how much those around them were earning. They did not know what the acceptable pay norms were and so negotiated in darkness. Sennett argues that ‘occupational mobility in contemporary societies is often an illegible process’ (Sennett 1998: 86). With no guidelines and no one to represent one, an easier and more straightforward way to a pay rise was to leave for another firm. Among the participants there was the impression that moving jobs would result in pay-rises. This would seem to indicate that job mobility can be a reflection of greater security felt by individuals rather than greater insecurity. This is a security based on one’s value on the external labour market, rather than one’s value within the enterprise. The route to promotion was also the route out of the company. The flattened hierarchies of modern firms has often been contrasted with the multi-layered bureaucracies of old, with their many job titles and obvious routes to job progression. The hierarchies still exist but with fewer rungs on the ladder and less opportunity to climb. Most of the participants could list the top four or five layers of the organisation; CEO, Vice president, if the company was an multinational there would be an Irish managers, below him or her would be a layer of general and development managers, and below that were the teams and team leaders. One way to escape lateral movement from project group to project group was to switch firm and enter the new employment at a higher level. The leap from project manager to departmental
manager was more possible if one joined a small start up in which hierarchies had not yet become entrenched. For this participant, her years in the workplace was a hindrance to her further progression within the company:

(I'd) been there five years and I'd really got as far as they were going to let me go because I started there so young that they always, in the back of their minds they'd always have a perception of me as oh the girl that worked in shipping so I'd stopped learning and I'd done enough, I mean I did learn awful lot there but I wasn't learning any more so it was time to go. (Linda 2:19)

In contrast to more traditional industries long-term commitments are seen as a hindrance to career development. Sennett argues that employers prefer newer inexperienced workers over those older experienced workers (Sennett 1998). In the computer industry this can be seen in IBM who preferred to hire employees just out of university than those with a few years programming under their belt (Kunda, Barley et al. 2002). Movement from company and company is thereby a response to an industrial organisation that doesn’t value years of service and doesn’t have a multi-runged occupational ladder. Frequent movement between projects and companies makes status a nebulous commodity. It is not obtained by progression over time within a particular company and working relationships. Pay levels and stock options are one indicator of status, yet even here we are not talking of the status of old, of how one’s standing is perceived by one’s work colleagues and community. Almost all of the interviewers did not talk about their pay levels with those they worked with, mostly out of fear that they might be paid more (and hence have a higher status) than their colleagues and that this would cause an uncomfortable feeling to develop between them. Status reflected not one’s worth to one’s colleagues, but one’s worth to the company. When asked if she would stay if they weren’t given the
raise they had asked for in the review, one IT worker (who is relatively low paid) said; ‘It’s hard because the shares do add something, but if they don’t want to give it to me they don’t think I am worth it, so what is the point of staying? ‘ (Catherine 2: 51). Another said:

If they gave me 1% that would be a sign like you are crap and you are not doing a good job. You would expect to get at least 5%. If they give you less it’s a sign they are not happy with you, I would want to know why.
(Karl 3: 518)

If one felt one was not valued within the company, one left. If one was unsure as to one’s role within the company or of the company’s position in the industry, one left. The reasons cited above, increased pay, promotion and for improved status, are reasons that are related to an individual’s career. These however were not the only reasons, and for some of the participants were less important than other aspects of their work. Hirschmann discusses the strategies of exit and voice (Hirschman 1970). For some, movement was a form of exit, a way of avoiding problems in their present environment, where perhaps they were unhappy with their workload or the conditions of their work. Some said they would consider moving to avoid a long commute. Others moved because of clashes with their managers. Most people said they wouldn’t move if they were unhappy at the increase in salary they got at their annual review. When asked if she would move to get more money one participant responded; ‘Not really, it would depend on what the reason was, and if I was happy anyway, I would be prepared to accept less. (Linda 3: 519)’ another said ‘I could move for money but it’s not always about money, at some point you just want to achieve something, so by moving I’d just be starting again and it would take a lot longer (Johnny 3: 266)’. A re-occurring theme throughout the interviews was the expectation that work should be interesting
and satisfying. If the work was interesting they would stay, if they were bored they would consider moving:

A. There has been this lull where I haven't had enough to do, and I started doubting whether or not there is going to be more interesting work for me to do. And a certain amount of dissatisfaction. So I am going to give it a while to see if things will pick up again
Q. How long is a while?
A. Until Christmas.
(Mary 3; 125; Note interview took place in October)

For some there seemed to be a pay off, in that if work is dull then they'll stay if the money is worth it, carefully balancing the two aspects of the equation 'interest' and 'salary':

(my manager said to me) 'that's what we decided when we hired you, ... we're going to keep him interested and he'll be alright but the moment he gets bored is when we have to worry'. So they know my feelings on work and on whether or not it's worthwhile. So ... if it's not made worthwhile either in terms of interest or salary I'd be quite happy to say 'I am not happy with that.'
(Mark 3: 275)

People stayed if they felt a connection to the work they are doing:

I know that it is slightly different over in sales and marketing, the sales people in particular feel less bound to the company than the technicians do. I think that if you are selling you can sell anything but if you are developing it's the stuff you built to you feel slightly more attached to it.
(Mike 3: 133, engineer, in same company as C below)

Why I wouldn't move to £75,000, it's the golden handcuffs. And I also like doing what I am doing. I very much feel a sense of belonging to my product line. I have achieved a lot there and a lot I want to do there. I want to make it with the product.
(Conor 3: 104. note is not an engineer, in marketing)

If they are happy with the way the company is going and feel that the projects that are been undertaken are going to be
interesting and successful they stayed. If they had friends in the company and liked its social side, they stayed (Karl 3: 260-268). Work is a social activity, for these people, it is equally a source of satisfaction. The desire for one's work to have meaning is not new. What differs these IT workers from previous generations is that they almost see no option but to leave. Their expectations of work are higher as are their expectations that they will be able to find a more appreciative workplace elsewhere.

Desert nomads move between fixed points along traditional routes. For these participants the company offering secure permanent employment provides a similar respite. In the quote below Joe becomes bored of the work he is doing and so leaves for the much greater challenge of setting up his own business. However once the business begins to falter, he considers returning to the safety net offered by paid employment:

Q. Looking over the last year in work how would you describe it overall?
A. Well half the year was spent in starting the company and half the year was spent working in Oblige, so the first half of the year in Oblige I got to the stage where it was all very easy and there was no challenge ... and I just didn't care and the second half of the year was the opposite where it was too much and suddenly the human problems became much greater than the technical problems and everything became a lot more difficult and I didn't make any money, whereas in the first half of the year I made a lot of money so.

Q. So I suppose on the one hand the first half was kind of boring but safe and the second half was much more interesting but much more unstable?
A. Yes so I'm thinking now well maybe I should go and get a job again, take some money in to relax a bit because I've had a lot of excitement in the last 6 months and I think maybe I need a rest before I go mad and also I don't have any money and I get very uneasy when I don't have any money, begin to feel very insecure.

(Joe 3:93-96)
In this quotation the company is seen as a resting point between excursions, a temporary retreat from the much more interesting, but more unstable world of self employment.

A final theme which emerged was that of escape, moving in order to escape time discipline. Therborn described modernity as ‘an epoch turned to the future’ while pre-industrial societies ‘saw the future only as a repetition of the past’ (Therborn 1995: 4). Post-modernity he further argues ‘has lost all sense of time direction’ (Therborn 1995: 4). The job-mobility of my interviewees does not indicate a modernist orientation to the future in that it is not a future that is planned for. People moved when the opportunity presented itself, when a friend started up a company or told of a job opening. Movement has more to do with serendipity than strategic planning. Kunda in a study of contractors in the US also reported that the move into contracting was precipitated by a chance offer or encounter (Kunda, Barley et al. 2002). In cyclical time the same events reoccur with no change. This concept is often used to refer to the time of pre-industrial society. Each year had a harvest festival, this year’s is the same as last year’s and as next year’s. There is a very un-modern cyclical aspect to the job mobility, the movement is often routine; ‘I’ve been here two years it’s time to move’. Neither however it is the post-modern time of the endless present. The future is foreshortened but it is not absent. It exists as a place filled with hopes and dreams. In the responses below the participants describe futures in which they leave the time discipline of work:

Q. What are your future plans or do you have any?  
A. I don’t necessarily specifically have any future plans, haven’t really nailed any down, I could give you some ideas but I don’t know …  
Q. Can you give me your general ideas?  
A. I’ll give you work answers and I’ll probably leave .. in about a year, or a year and a bit after the shares come out. Yeah I’ll probably leave quite soon
after that to join a, not necessarily a smaller company but join in a sort of director level of the company somewhere, that's in order to get rich and I suppose buy a house, have kids

Q. And what sort of time frame are you talking about?
A. For the last 2?
Q. Yeah
A. In a year, within a year, not necessarily the kids bit, buy a house.
Q. Do you see yourself staying in the business or are you one of these people who are thinking, I'll be able to make a lot of money on shares and get out?
A. If I made a lot of money I'd get out yeah.
Q. And if you got out what would you do?
A. Nothing.
Q. You'd just be a man of leisure?
A. Yeah, I'm not a great believer in work for the sake of it, it's just to get, I'd find something else to do but I've no idea what that is, but I'd certainly wouldn't work 50 hours a week.

(Johnny 3: 327)

Q. What are your future plans, not just in work?
A. They're a little bit ill formed, but I'd like to, like everyone take some time off and eventually get out of the position where I have to work forty hours a week. I don't mind working but I'd prefer not to work forty hours a week, spend some more time sailing and that kind of thing, maybe do a little bit more travelling, maybe work forty hour weeks or fifty hour weeks for half the year but spend some of the year not working.

(Karl 3: 230)

Q. And what are your future plans?
A. My future plan is to get a good balance between, is to do a job that I enjoy doing and to have a balance between my work and my leisure time and so that ... my work doesn't take up too much of my time and I'd also plan to have children pretty soon because I'm nearly 30. I think I probably will have a child in the next year or 2, so be a good father I suppose, they would be my plans.

(Joe 3: 209)

Some wanted to leave the world of work behind, either to travel for a year or two, or to leave the IT sector on a permanent basis. The dream of the start-up is the dream of getting rich quick and getting out of working altogether. When asked about where they
saw themselves in the future, many people pictured a future in which work played a less important role:

Q. What are your future plans?
A. General or work?
Q. General.
A. Well staying in the same workplace for a while anyway. In terms of living arrangements probably want to be in my own place and not have to share a flat any more and own the place in about a year if possible. Other than that I just want to keep travelling a lot and I want to take, as I get richer I want to take more and more unpaid time off work to travel more and to do more things for myself. And I want to do more things like yoga and I'm going to start training in like massages and stuff like that so I just want to do more things that are not just sitting at a desk and using my head although I enjoy using my head but I want to do other things.

(Aoife 3: 258)

Q. One thing I asked you last time was how long do you think you will stay in your company?
A. I can't remember what I said at the time, but I probably said 3 years from now. I don't know what I am going to do then. The older I get the more I like the idea of having a little market garden down the country. The other half of me wants to master the Internet and set up my own business.

(Conor 2: 247)

Q. What are your future plans?
A. Making music
Q. Would you like to give up work and do music?
A. Yes, I would love to.
Q. What time scale?
A. I haven't a clue, I would like to do it next week.

(Sean 3: 304)

Q. What are your future plans?
A. Make some music. My ideal is make a share fortune. Making music is a big goal, more so than starting my own company. The work is a bit of a day job. As far as work goes, you get to a certain level like after about ten years you kind of know it all, that is grand, you can go contracting anywhere you want, it's guaranteed income.
Q. What time scale are we talking?
A. If you say ten years you will have been exposed to working with every technology that is around.
Q. But your future plans, what time scale?
A. In a year or two, but it’s on-going.
Q. Would you ever consider moving from work into music?
A. Yes, totally. The problem is making it pay, it’s not possible. Even people successful have day jobs. I have no idea if it’s financially possible, it probably is with a bit of ingenuity, writing jingles and stuff to pay the rent. But ideally yes.

(Evan 3: 567)

Of the twenty one people I interviewed three had written or were writing books, four had devoted time and money towards developing their musical ambitions, four had taken a year off work to travel and three were contributing time to voluntary organisations, another left work to return to college. I have quoted extensively from the interviews because in them can be seen the implication is that something is changing with respect to the relationship of work and identity. Part of this has to do with different expectations of work and the role work plays in people’s lives. McLaughlin argues that nomadism threatens private property relations hence the hostility experienced by Irish Travellers (McLaughlin 1995). Hardt and Negri argue that nomadism is a form of resistance, a rejection of present conditions (Hardt and Negri 2000). In moving between jobs we can see a rejection of industrial working time at least to the extent of giving your life to one job and also in the hope some have that they will be able to escape work discipline entirely. Jacques makes a distinction between ‘clock time’ and ‘lived time’; the first is dead, abstract, mechanical while ‘living time extends into feelings for the past and desire for the future which no physical object can possibly experience’ (Hassard 1990: 5). In their ambitions for work beyond commodified labour, and their attempts to escape commodified work time, the participants are turning to lived time over clock time. In the course of this project I came upon this aphorism by Lawrence Rosen ‘For the
businessman, time is money, but for the academic or artist, money is time'. It would seem that their approach to work has become more that of the artist than the businessman. Himanen speaks of an 'hacker ethic' which is the spirit of the information age (Himanen 2001). Though he uses the phrase 'hacker' to describe it, he insists that the ethic exists beyond the computer experts which first heralded its existence. It is an ethic which takes its precursor in the academy, just as the forefathers of Weber's protestant ethic was to be found in the monastery. In this ethic work as dutiful behaviours is replaced by work as a passionate creative activity. It is concerned with a 'dedication to an activity that is intrinsically interesting, inspiring and joyous' (2001: 6). It opposes the centeredness of work in society, the division between work and leisure that occurred with industrial capitalism:

the hacker ethic also reminds us, in the midst of all the curtailment of individual worth and freedom that goes on in the name of 'work', that our life is here and now ... work is part of our continuously ongoing life, in which there must be room for other passions, too... hackers do not subscribe to the adage 'time is money' but rather to the adage 'it's my life'. And certainly this is now our life, which we must live fully, not a stripped beta version of it (2001: 40).

The majority of the participants in the study would not describe themselves as hackers, yet perhaps in the 'passions' mentioned above we can see glimpses of this hacker ethic

Jumped or Pushed?

In the preceding sections I have outlined how the participants moved from job to job in order to increase their pay, to be promoted, to raise their status within companies or find more engaging satisfying employment. I also described how for some participants the destination they were travelling towards was a time less dominated by work time. Many perspectives, particularly that of Sennett’s, see mobility more negatively in
terms of unwanted impositions. In the following section I examine and reject the contention that rather than jumping, these workers were pushed. One way to account for such mobility is to see it as the incorporation of the short-term perspective of the company into the employee's approach to her working life. Where the unpredictability of the economic environment cannot be resisted, it is accommodated such that the company is relieved of the responsibility of providing jobs that can be depended on. It could be argued that the expectation that one must move is an expectation borne out of work organisations which are fragmented and orientated towards the short-term. One participant recalled hearing of a company being suspicious of an applicant who had spent what was considered to be a long time in one workplace:

A friend of mine went for an interview recently with eight years experience in the last job and they wanted to know why he'd spent eight years knocking around the same company, they were a bit worried that there might be something wrong with him.

(Joe 3: 52)

He describes how in his company long-term was considered to be a year:

They asked me at the start to give a long-term commitment and I said what is that and they said twelve months and a friend of mine working in IBM said he'd been asked for a long-term commitment of twelve months as well, so it's not that unusual.

(Joe 3: 46)

The employees' perspectives of the future as something immediate and urgent mirror the time frames of the IT economy with its images of fast-changing technology. For this participant there was an expectation that she couldn't depend on the future:

The thing about this business, it changes so quickly. Everything is different, they could decide to move the
whole thing somewhere else, and where would I be then? It's hard to say, the company could go bust or we could be bought over. So I am pretty open to the idea that unexpected things might happen. So it's not like I am working for the bank and I know it's going to be there forever, so therefore all I have to do is wait or plot my career. I like it there, but I could get a job somewhere else if I had to.

(Linda 3: 594)

The time discipline of industrial capitalism ensured that the factories worked on time but the concentration of the workforce into huge industrial workplaces also had unintended consequences in that the workplace became the sphere in which negotiations over the conditions of work are conducted. Bauman argues that the long-term relationship between employer and employee gave both an interest in settling their disagreements, of coming to agreements together (Bauman 2001). Fordism facilitated collective organisation. Part of the attractions of the post-Fordism as a management system is that it breaks up the power-base of the mass worker (Dyer-Witheford 2000). If a time-discipline of industrial capitalism was centred around ensuring that workers spent their working lives carefully cultivating a career, a time discipline of post-Fordism might easily be one that convinces the employee to frequently move workplaces thus breaking up work relationships that might lead to resistance, undermining workplace confidence and accommodating a capitalism that refuses to guarantee workplace security. Sennett is concerned that in the frequent movement from workplace to workplace, we are seeing the internalising of a new kind of time discipline, a time discipline suited to an economy that is made up of a network of companies in which work is based around projects of limited time frames. Sennett notes that length of service gives employees a solid basis on which to criticise the organisation:

Older, experienced workers tend to be more judgemental of their superiors than workers just starting out. Their accumulated knowledge endows
them with what the economist Albert Hirschmann calls powers of 'voice', which means older employees are more likely to speak up against what they see as bad decision-making. They will more often do so out of loyalty to the institution than to a particular manager. Many younger workers are more tolerant of bad orders. If they become unhappy they are more likely to quit, rather than fight within and for the organisation. They are disposed, as Hirschmann puts it, to 'exit' (Sennett 1998: 94).

The future in these organisations is foreshortened. The past is a couple of months away. It takes time to learn the geography of an organisation; who answers to who, who is senior to who, to learn how one slots into the organisation. One of the participants in the study had unusually, been in his company for a number of years:

I stayed 4 years and what I did notice (was) that when somebody arrived in the department they assumed I'd been there all my life or something because I'd gotten very relaxed and confident about the place and people just assumed from my behaviour at meetings or something that I was just some kind of lifer or that I was permanent staff or had been there since I was born or something.

(Joe 2: 52)

Length of service allowed him time to learn how that particular organisation operated, he knew the lie of the land, and from that came confidence. This confidence marked him out as unusual. Within the companies I looked at, exit was a more common strategy than voice. In Sennett's account of ex-IBM employees attempting to understand how they came to lose their job, he describes a number of stages in their search for answers. In the final one they take responsibility for their own firing, finding fault in their inability to predict what was going to happen and in their failure to move out of the company in time. They internalise and accept the economic rationality of their former employer (Sennett 1998). Casey pictures the promotion of a
'secular religious character' in the modern organisation. A religiosity which has both belief and practice:

Practice is seen in the unquestioned willingness to put in routinely long hours, to display agreement with the commitment with the values of the culture, and generally, to serve for many years or leave without complaint when no longer required (Casey 1995: 193).

Willingness to move could be seen as an expression of this religious character, such that the acceptance of short time frames among employees parallels the imposition of short term jobs by the employers. However such perspectives underestimate the considerable problem for companies caused by staff turnover and the efforts made by them to retain employees. Companies lose the tacit and embodied knowledge of their former employees. If people leave coming up to a product launch this imposes considerable time constraints and disruption of the production process as the follow quotes indicate:

Q. Do you find it very stressful? It sounds stressful to me.
A. That was stressful at the beginning but after a while it just became ridiculous so there was no way of meeting their requirements so it doesn't really matter as much any more, I more worry over things like if people on the team were to say I'm leaving, then that can cause real problems and when you've made commitments to a customer or to a series of customers that you're going to do their stuff in January and February and then begin their stuff on the 10th of March and you've a whole production line of things to go ahead, if one person was to get up and say I'm leaving and they leave within four weeks or even less in some cases if they have holidays built up, all those projects are completely in jeopardy you may not be able to begin on them, you don't know where your going to get a replacement for that person from, but the customer sees none of that, they don't know that we're low on resources, there's no excuse for them, they've already made commitments and they have maybe advertisers doing a whole marketing campaign on what's going to arrive on those dates.
Q. So what do you do in that situation?
A. Panic completely. What we have done actually recently is to take on contractors from outside to come in and assist but even that takes time because even they must be trained on the specific stuff and they must come up to speed and they can be taken away at short notice as well and they never do as good a job and they're enormously expensive so it's not really a solution in the long-term, all it can ever be is to tide you over.

Q. And do you try and stop the person leaving?

A. Absolutely but it usually when somebody has said they're going to leave they're leaving. There's no sort of amount of persuasion that's going to make them stay.

(Dermot 3: 148-157)

... we are not a big company. We don't have the resources to send people off to be trained up. We don't have the resources to hire in consultants who have the knowledge. We have to get somebody who is quite junior and just give them the skills and train them on the job. If we lose those people we have to go back to square one and hire someone else.

(Fergal 3: 58-64)

There are time costs to moving for the company and as a result some companies made efforts to hold onto workers. These included offering training though this was often of limited use. Movement within the company was offered in particular by the large multinationals, two of which were based in the US and one of which was French. Benefits were offered. Annual and bi-annual reviews were used to address individuals' problems. Though these were not seen as successful as the following quotes indicate:

They offer, (there is) no negotiation. If you don’t like it you just think about leaving.

(Dermot 4: 448)

I suppose in terms of keeping people, they do have an emphasis on setting objectives and working with

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69 At the time of the research crèches were not offered though there was a feeling that this was needed by employees, if not now, in the future. Three years after the research was completed, in 2003, City West business park which is home to many IT companies including AOL introduced a subsidised crèche for employees.
people on their objectives. Having said that I never have had a review.
(Linda 3: 194-195)

Stock options, known by many in the industry as ‘golden handcuffs,’ are a traditional way in which the IT sector seeks to hold onto its employees. The problem with them though is that when they vest the company can lose a lot of senior more experienced staff at once. Furthermore, if the company is doing badly, the handcuffs aren’t as tight:

No one believed the price would ever, ever, ever go down and everybody thought that this (share options) was a great idea and staff who’d been there a few years would have made maybe enough money to buy a house in cash and they feel, ‘God I’m never leaving here’. So now I’d say things are different because those options that staff have been granted so far in the last year or two would be worthless and I’d expect them to have problems retaining staff.
(Joe 3: 108)

There was a general feeling that money was the only thing company was willing to provide. One programmer talked about an instance where the job structure was changed to prevent someone from leaving but feels that was quite exceptional. Another talks about delays in the review process:

Q. Do you have any impression that the company does anything to retain people?
A. Nothing. In fact it is just like last year with the salaries they were three months late giving us our review. They only back-dated one month. This month we are meant to get our reviews, but already they are delayed until January.
(Catherine 3: 280-291)

In another company staff wanted more flexible hours but were being blocked by the HR department who weren’t willing to

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70 Often when employees are given share options they aren’t allowed to sell them immediately, so for example an employee may be given 600 shares but only allowed to sell 200 in the first year, a further 200 in the second year and the final 200 in the third year. This is known as a vesting provision. Vesting is the point at which the option to buy comes into play.
administer this type of working environment. They paid lip-service to flexibility, including it in job advertisements, but didn’t allow it in practice. This caused people to leave:

Q. Did Dab have a high turnover?
A. Yes.
Q. Did they do anything aimed at preventing that?
A. No and it was really interesting actually because part of the reason why I left was because I uncovered a lot of the reason for it. They paid great lip service to the idea of trying to retain staff but then when it actually came down to it what most of the staff wanted were more flexible working hours and the ability to telecommute and that kind of thing, or maybe not most of the staff in the company but in the section that we worked in people wanted those kind of things if they weren't going to be paid more money, and we discovered that the Human Resources Department was blocking it because they did not want to have to do the extra work (that) those flexible contracts would require from them so they just kept saying no people can't do it no you can't. They would go back and tell our managers no it was against company policy and our managers would come back and tell us no and yet every time we would see new recruitment ads going out saying flexible working hours you can work from home you can telecommute and then once you go in there they go no you can't actually.
Q. How did you find that out?
A. I asked people and by the time I knew I was leaving I just didn't give a damn any more I knew I had another job to go to I knew I wasn't going to need the reference so I just not give a damn so I just went around and had a huge row with my manager and I had a big row with the HR people as well.
Q. What were they saying was going to be the increased workload for them?
A. Well they didn't say I found it out from someone else that one of the senior managers had this big managers meeting one day and one of the senior management guys said you know we have to introduce these new working hours and blah blah. Then one of the managers said well we have been trying to but we keep being told we cannot do it and when he turned to the HR woman and he said what is the story like why are they not doing it she just blew up and said you can't have people just coming in and out whenever they want to it's ridiculous and they
just discovered then that she had been telling everyone no.
(Susanna 3: 249-257)

There was a feeling also that once people had decided to leave they couldn't be stopped: 'Once people's minds are made up to leave there is usually nothing you can do' (Even 3: 153).

In the preceding section I have been concerned with the costs for individual companies. Movement of knowledge workers may however benefit the industry as a whole. Knowledge in these industries is often tacit and embodied. Like a bee pollinating flower after flower, the mobility of these workers allows knowledge to flow between companies. Innovation requires the spread of such expertise (Hall and Soskice 2001). However to say that mobility is therefore functional to the knowledge industries, is not the same as saying it is created by and controlled by these industries. An alternative approach sees these industries benefiting from mobility, mobility that arises from the actions of the employees rather than the employer. This is the approach argued for by Hardt and Negri:

Proletarian struggles constitute - in real, ontological terms - the motor of capitalist development. They constrain capital to adopt ever higher levels of technology and thus transform labor processes. The struggles force capital continually to reform the relations of production and transform the relations of domination. From manufacturing to large-scale industry, from finance capital to transnational restructuring and the globalisation of the market, it is always the initiatives of organised labor power that determine the figure of capitalists development. (Hardt and Negri 2000:208).

It is possible to speak of the 'end of a job for life' purely as an ideology, as a post-modern form of time discipline, as something that is imposed, that has to be enforced, that is to the benefit of the employer and unwanted by the employee. Yet doing so underestimates the costs to the employer and the extent to
which moving benefits the employee. It underestimates the extent to which mobility can be a successful strategy in obtaining better working conditions. It underestimates, as we will see in the second half of this chapter, the extent to which the idea of a work ethic based on a 'job for life' was created and cultivated in the interests of employers (Beder 2000). Sennett characterises mobility as either enforced or as a flight from unwanted conditions. However the term flight implies that this is a strategy born of weakness. This misses the point that as a strategy it can be effective. In much sociological discussion, collective solutions are prioritised over individualised. They are seen as stronger, more durable, more significant. Yet the reality of these workforces is that collective solutions are not always capable of delivering what the individual working alone can obtain. For example, the wage increases of 4% offered to unionised workplaces under the various partnership agreements are not going to impress IT workers who routinely obtain 10% pay-rises on relocating to another workplace. Furthermore issues of personal satisfaction and interest are essentially personal issues and thus are difficult to address on a collective basis. The point here is that the difference between feeling there is no choice to leave and choosing to leave is very slight when the expectation and the reality is that moving can provide solutions to present day problems.

In the first half of this chapter we have seen that the participants in my study are nomads not just in that they physically move from workplace to workplace. They are also nomads in time, their working life is not of long uninterrupted duration but is made up of many short stays. Nomadism is a strategy which satisfies traditional desires for higher rewards in work in terms of pay and status. Mobility also facilitates more recent expectations of a work-life which is intrinsically meaningful.
2. PERMANENCY, MOBILITY AND CHARACTER

In this final section I examine the implications of this mobility for one’s sense of identity. In *The Corrosion of Character* Sennett links permanency with character, mobility with instability (1998). In the following section I outline that permanency and mobility contain within them quite different orientations and expectations of the future. As strategies permanency and mobility both have positive and negative aspects. Sennett argues that permanency allowed work-based solidarity, while mobility makes this difficult. However permanency is also bound up with the work ethic and the time-discipline of industrial capitalism. Thrift argues that ‘the most important factor in terms of incorporation of the time sense of the working class was the new economic rationality ... a new importance was attached to regular wages and to ‘planning ahead’. No more would workers turn up to work only when they had money for the week ... not only the present but future time was now money’ (Thrift 1981/1990: 119). As we have seen when the aim of mobility is to escape work either temporarily or permanently or when the male ethic is replaced by a more feminised approach which sees work as one sphere among many rather than as the central locus of identity, this rationality is disrupted. In *The Corrosion of Character*, Sennett looked at a group of workers for whom a job for life was the expectation, and finds in the absence of this expectation a crushing demoralisation (1998). In this study I look at a cohort of workers for whom job for life was not the expectation and find no such demoralisation. Both studies capture a partial reality. Castells (Castells 2001) argues that there will be winners and losers in the Network Society, in a sense Sennett focuses on the losers, while I describe the winners. This focus allows me to identify the irony that a consequence of winning in the world of work is a displacement of work, such that its importance in terms of identity, social networks and self-actualisation is diminished.
Career is no longer provides the solid ground on which meaning can be constructed (O'Doherty and Roberts 2000). Hopfl and Hornby-Atkinson describe as 'brittle' meanings created in reference to work organisations (Hopfl and Atkinson 2000). Sennett links job stability to the creation of clear personal narratives, strong relationships within which one's sense of self is located and ultimately a strong sense of character. Sennett is concerned with how the move from a Fordism to a post-Fordism society has changed the experience of work for this generation of workers. However there is a danger that this results in nostalgia for the past and fear for the future. In the Fordist factory, work was dull, repetitive and uninteresting. There was no expectation that it could be otherwise. As these quotes from two factory workers in the 1960s illustrate, it was a time spent apart from life:

A surprising number of men had spent their entire working lives within the confines of that gigantic plant, from leaving school to receiving their retirement watches. God knows why watches, for why should an old pensioned-off worker desire to carry about with him an incessant reminder of the tragedy of passing time, with its evocative recall of long-passed hopes and the empty years which lie ahead? In my eyes the sight of some old tool-makers with fifty years of company service behind them was a horrible portent of the future. Would I know no more of the great world and the infinite complexity of the varied civilisations it housed than the confines of this fenced industrial concentration camp? (Fraser 1969: 31)

The toolmaker

The other day I overheard two old employees who had been to the factory to receive their pensions. They greeted each other as I passed. 'How's it going, Bert?' said the first. 'Lovely, Bill' the other, recently retired, replied. 'Anything's better than that bloody hole.' This may seem a paradoxical reference to a place where someone had spent forty years of his life. Why, if he hated the job, didn't he leave? I don't know why. I don't even know why I'm still working there myself. But I do know that people are always glad to be out of
the factories. Whether it be the end of the day, the end of the week, or the end of a working life' anything's better than that bloody hole'(Fraser 1968: 17).

Dennis Johnson, Factory Worker

Work time had a paralysing effect. Sennett argues that character comes from people's sense of self in the workplace:

How can long-term purposes be pursued in a short-term society? How can durable social relationships be sustained? How can a human being develop a narrative of identity and life history in a society composed of episodes and fragments? The conditions of the new economy feed instead on experiences which drift in time, from place to place, from job to job. If I could state Rico's dilemma more largely, short-term capitalism threatens to corrode his character, particularly those qualities of character which bind human beings to one another and furnishes each with a sense of sustainable self (Sennett 1998: 27).

However Sennett overestimates the strength of the character borne out of Fordist work. The sense of the self that is sustained can also be a self that has limited expectations and desires, and feels powerless and apathetic. There is nothing inherently stronger about a character formed in relation to a lifetime's work. In an interview cited above a participant with five years work experience is referred to a 'lifer', a phrase used in prisons to those who have a long-term sentence; does this indicates that a 'job for life' is also seen as akin to having a prison sentence? The certainty of the Fordist work organisation gave, with its long and entirely predictable future, came at a price, as evidenced by this factory worker's comments:

Sometimes I have an urge to open the nearest door and walk and walk and walk. I feel a need to get away from this atmosphere of here and now: where all that matters is the present, good or bad and one must make the best of it. Nobody desires change. Everybody is looking into an endless flat future and
thinking that they could be worse off. What a mass we are (Fraser 1968: 20).

Bauman argues that the long-term relationship between employer and employee gave both an interest in settling their disagreements, of coming to agreements together. Solidarity and resistance were the fruits of a life spent in work. However, equally, as the above quote highlights, an entirely predictable future can be a dis-empowering thing.

Earlier I described how solidarity and resistance were the fruits of a life spent in work. The trade-union call for ‘a job for life’ was a powerful demand that aimed to protect against the insecurity of industrial capitalism. However with a life spent in work comes notions of career and work ethic, which have a disciplinary effect in that they bind workers to the workplace. As Colin and Young argue:

by tying people to labour markets and employment in ways that are personally meaningful and beneficial to work organisations and society, career is also part of the rhetoric that supports the ideologies of society and therefore contributes to its stability (2000: 4).

Thompson described how workers first struggled against work-discipline, and then learning the rules of the game, struggled to define the terms and the times of their work (Thompson 1991). Like the fight for the eight-hour day and for overtime pay, the assertion that a job should be for life represented an attempt to define the rules of the game in a way that protected workers’ interests. Thompson highlights that later struggles were not against time-discipline but rather the time of the clock and work was accepted and internalised. Bauman and Sennett express concern at the loss of the workplace as the sphere in which worker-employer relations are negotiated ((Bauman 2001); (Sennett 1998)). These fears are however tinged with a nostalgia that forgets that these negotiations were conducted in terms framed by the employers such that while pay and conditions
were often on the agenda, the content and nature of work rarely were. In contrast the participants in this study were concerned with intrinsic aspects of work, aspects such as autonomy, interest and the role of work in one's life. I am not suggesting that we are on the cusp of a 'brave new world' of work. It could be that these perspectives have been formed in exceptional circumstances. However I am cautioning against critical perspectives which often see subjectivity only expressed in terms of responding to unwanted incursions on hard won freedoms. The mobility of my participants indicates that another dynamic can also operate. As Arthur et al argue, by viewing present day work through traditional lenses an important dynamic is missed, that is 'how people enact their own careers, in their own frameworks, and in the process contribute to, rather than simply respond to, the unfolding New Economy' (Arthur, Kerr et al. 1999: 163). Employee subjectivity can also alter the world of work and change the expectations and understandings that are associated with work. For these interviewees it is not that the personal narrative no longer depends on work, because work plays an important point in these people's lives. However for many of them their sense of self is not defined wholly in work terms. Their narrative incorporates their non-work and their working life. They also have a 'life' and 'identity' outside work; in fact some of their identity comes from their friendships and non-work life. This may reflect a difference between the US experience depicted by Sennett and the Irish experience. In the US work takes a greater proportion of people's life (longer days, years, and working lives) and social networks are perhaps weaker or seen as secondary to work based networks. Furthermore in Ireland job mobility exists within quite a limited geographical area. This makes possible the existence of networks that are inside, outside and between workplaces. Workplace relationships are not bounded by the walls of any one particular enterprise. An example of this is the work-based football teams
that were present in some of the workplaces. These teams were set up with company backing and were supposed to be for company employees. However when some employees left to other workplaces, they remained on the old football team, so that the football team is made up of people who used to work for a particular workplace rather than people who still work for a particular workplace. In another workplace, ex-employees had created an e-mail list in order to keep in touch with each other. The networks that were once based in the workplace have not disappeared, they continue to exist outside the workplace. Sennett is correct when he argues that relationships need time to develop but he assumes that the only time is the time of a particular employer. Rivern-Smard argues that though careers may appear random and chaotic, individuals can still find a location for their identity and a measure of continuity in the creation of a 'vocational project' (Rivern-Simard 2000). Using Weich's concept of enactment, Arthur et al argue that people 'create their own career narratives or 'stories' as a means of personal sense-making in a shifting environment' (1999: 165). These perspectives place the worker as an active creative individual at the heart of changes to the structure of work. Many of the experiences reported by the participants in this study share similarities with the 'boundaryless career model' described by Arthur et al (Arthur, Kerr et al. 1999). Traditionally career patterns were seen as age linked and linear. An initial time of exploration was followed by an advancement phase resulting in a final maintenance phase as actors became established and settled (Super 1957). These stage models were derived mainly from the experience of the male population ((Erikson 1957); (Levinson, Darrow et al. 1978)). Now however Castells describes of a new sense of time 'time-less time' in which we see the 'twisting of professional career patterns away from the predictable progression of the organisational man, now replaced by the flexible woman' (Castells; 171). Savickas
describes how the career path now 'twists and turns' (Savickas 2000), for Riverin-Simard careers 'zig-zag' (2000). McArthur et al now argue that 'age bound stereotypes .. become increasingly irrelevant' (1999: 59). Career stages can still be decreed, however now they progress in a 'spiral' or 'cycling' pattern. There is a time of 'fresh energy' in which new careers are embarked upon, and this is a time of experimentation and exploration. In a time of 'informed direction' experiences are accumulated in a purposeful manner. In 'seasoned engagement' actors take advantage and build on all the experiences they have accumulated so far. These stages are not linear, rather career paths are characterised by discontinuity, by unexpected moves and often by times taken out of the job market altogether. These 'times out' satisfied personal desires, for example for travel or to devote oneself to caring for families, to engage in volunteer work or develop a hobby. They argue that career direction was not informed by pay or promotion in the traditional sense. In this way the career path is different from the occupational career described in the initial section of this chapter. In these features we can see a move away from a work ethic which characterised work as a duty or an obligation and a move towards an ethic in which work's importance is characterised by its meaningfulness or its ability to satisfy personal desires (Himanen, 1999).

Finally in considering risk and job mobility Sennett argues that in moving between jobs the individual rarely ends up in a better place. Having taken responsibility for improving his or her situation, and having failed to do so, the individual bears an added burden of personal failure. The blame for making the wrong decision lies squarely on the individual's shoulders. It is here that individualisation is seen as a negative and socially destructive process. However this sense of personal failure was not evident in the people I talked to. There could have been a number of reasons for this. Firstly the respondents were all in the first ten years of their working lives, perhaps it was too early
in their career for them to be troubled with issues of success or failure. Secondly though some of the respondents were homeowners, none had children. They had few financial responsibilities or pressures. These objections can easily be turned on their head. Being at the beginning of a career ladder faced with decisions which will impact on one's future opportunities surely brings pressure of its own. There are two key differences between the experience that Sennett relates and the experience that were related to me. Firstly the strong labour market conditions meant that any gamble lost could always be taken again. Two participants moved from to their second workplace and then to their third within a matter of months. The first move wasn't as successful as hoped and there was no reason not to move again. Secondly, and perhaps as a consequence of being in a very mobile work environment, these individuals sense of self, was not as tightly bound up with the world of work as Sennett interviewees seem to be.

Two orientations seem to be evident. There were those who had a purely instrumental approach. Work was a source of income that could enable to pursue their real interests, their real source of identity. Others were more orientated to the technology itself, where work was a source of satisfaction. The boundaries between the two orientations are not rigid. Those who are only in it for the money, also liked IT because it could be interesting. Most of those who found the technology engrossing, who intended to pursue a career in the sector had also interests and/or relationships outside work.

It is difficult to quantify the relative importance of other spheres compared to the work spheres, but some tentative indications can be gained from the answers to the interview questions. When asked what their future plans were many mentioned wanting to buy a house or have children. These answers reflect the particular age profile of the participants. Putting these answers aside and looking at the other components of the
responses, it is note-worthy that of the seventeen who were asked about their future plans all but two focused exclusively on as non-work activities (and of those two, one was writing a book and another has since become highly involved in a voluntary organisation). Seventeen answered a question in which they were asked what were the most important things in their life; of that group, only five referred to work or computers in their answer. These results suggest that for the participants in my study, the workplace is no longer the only or the most important or the prime sphere in life. Rather it is one sphere among many just as the workplace is one workplace among many workplaces.

3. CONCLUSION

Sennett’s concern with individualisation is that it leads to a diminished sense of character. He argues that character comes from having a coherent self-narrative, and this comes from one’s relationships built up over time in work. However one’s sense of whom one is and where one fits into the world comes from one’s relationships to those around one. In the past, work and community (as in the place where one lived and worked) provided the framework, the space and the time, in which those relationships were created and grew. Sennett is concerned that in the absence of these permanent places, relationships will fail to flourish. He underestimates however our capacity to creatively adapt to the situations we find ourselves. Instead of insecurity, my participants created for themselves identities that drew from their work and non-work lives. Work is and continues to be a collective endeavour, a sphere in which relationships are created. However relationships created in work can and here do extend outside the workplace. Similarly the identities created outside work can bolster identity created in work.

The use of movement as a strategy to increase pay-levels, promotion prospects or status, is a strategy that prevents the construction of solidaristic base within the workplace, but this
does not mean it is a failed strategy. Rather the difference between the Sennett's ex-IBM workers, rooted in the expectation of a job for life and these mobile workers is the difference between a settler and a nomad. It is in the settler's interest's to alter the environment in which he lives as much as he can. The longer he stays, the more he is aware of how that environment operates, the better he can change it. The nomad in contrast is just passing though. She doesn't have the same knowledge of the area, but neither is that knowledge needed as she has no interest in changing her current resting place, she plans to move on. Finally, for these time-nomads the future is a place of optimism and opportunity. It is perhaps this sense of a future of possibility, more than anything else, that separates the participants of my research with that of Sennett's.
CHAPTER 8: CONCLUSION

His weariness focused on the logic analyser and the small catastrophes that come from trying to build a machine that operated in billionths of a second. On this occasion, he went away from the basement and left a note on his terminal. "I'm going to a commune in Vermont and will deal with no unit of time shorter than a season" (Kidder 1981: 195).

At the beginning of my research journey I came upon the above quotation. Sociologically, I was interested in the computer industry as it seemed to offer a particularly un-alienated type of work. Personally, the growth of the industry in Ireland was fundamentally changing the lives of those around me as they traded emigration for a job within the sector. The quotation above shone a light on the issue of time within the industry. It raised the question of whether positive content of work, like a double edged sword, would result in the erosion of non-work time. It describes technologies which operate at speeds so fast as to be almost beyond comprehension and the longer times, and also the slower times of non-work. On the first reading, it was the billionth of a second that caught my attention, and upon re-reading it, it is the decision to move to Vermont that seems more interesting. Now this quote highlights the fact that we are not bound to accept the times of technology. This, and other issues, will be considered in this chapter as we move from start to the finish. The intention in this chapter is not to summarise the thesis but to draw out some of the main conclusions, consider what issues are raised by them and outline possible future directions for further research.

The conclusions discussed in the first half of this chapter do not confirm precisely to the previous chapters, the conclusions are informed by the thesis as a whole. The chapter begins with a discussion of the type of working time found within the sector. Drawing from chapter five and six, it highlights that various
types of time can be found; the time of the corporation, the time of the work process and the time of the individual. In the second section, issues raised by chapter four which looked at the duration of the working day are discussed. The third section builds on these insights to argue that a core feature of working time within this sector is its irregularity. The fourth section (referring to issues raised in chapter seven) considers how the position of work within one’s life has altered for those working within this sector.
The second half of the chapter suggests future lines of research.

CONCLUSIONS AND IMPLICATIONS

1. Corporate Time/Individual Time; Public and Private

This thesis investigated how working time is structured in knowledge industries. The central aim was to ascertain, by looking at a specific type of workplace, whether a new time-contract is being established and how that contract is being implemented and experienced in the workplace.

A core finding of this thesis is that time in knowledge industries is indeed associated with a particular type of working time. The temporal change in these industries is centred on the nature and extent of self-management of one’s working time. Working time has always been contested. Here however, decisions over working time are part and parcel of the daily working routine. Here, working time is fluid, flexible and reflexive as individuals negotiate between the competing rationalities of the work organisations they belong to, the work processes they perform and their own work/non-work priorities.

Different temporal rationalities were evident when looking at the management of work time within work; corporate rationality’s manages according to the calendar, while the individual work process is managed according to the task. This indicates that the time of the work process is not conducive to clock organisation.
For both corporate planners and the individual employees, the grey times of work (described in chapter six) make organisation of working time according to a linear, quantifiable, homologous, concept of time problematic. The time of these work processes is not the fixed measurable time of the clock. However, despite this lived experience of the time, the logic of abstract time, here the time of the calendar, continues to cast its shadow.

In chapter seven we saw instances where the boundaries between work and non-work blurred or dissolved. Knowledge industries offer the promise that work and play will once more be unified. However, the promise of this temporal rationality was not fulfilled. The boundary crossing seen had more to do with the encroachment of work into play than play into work. As a result, rigid boundaries were created by some of the participants in order to protect their non-work time. This construction of boundaries by the participants indicates that here organisational working time remains embedded within the abstract time frames of the market.

Competing temporal rationalities are also evident when looking at the boundaries between the working day and the time ‘after-work’. Corporate working time embodies a temporal rationality which views non-working time not as a separate and distinct time but as an optional resource to be drawn on when required. Non-work time becomes ‘emergency’ or ‘additional’ work time. Many of the participants maintained the traditional view of non-work time as private and separate from the work domain. It was found that conflicts between these two approaches were often resolved in ways that did not challenge the public dominance of the corporate temporal rationality.

Adam speaks of the clock time as a type of temporal hegemony. Clock time became the time that measured all times (Adam 1994). In industrial society, work time and clock time were synonomous, in the post-industrial workplaces I have studied, this connection has been broken. In corporate time we have a
different type of hegemony, one in which work time automatically has more legitimacy than non-work time. This hegemony does not revolve around the time measured by the clock, but rather it is centred on changing expectations of work and non-work time. It is an understanding of non-work which reverses the clear boundaries between the two that are characteristic of industrial time. It is an understanding of non-work which sees it as secondary work time.

The hegemonic status of corporate time can be further seen in the next section, which highlights that conceptions of working time within this industry are greatly coloured by the US experience of time. The implications of this hegemony will be considered at the end of the next section.

2. Irish Time
Ireland has much in common with the US in terms of institutional frameworks. Working time is relatively un-regulated legally. Trade unions play almost no role in negotiating workplace conditions. Many companies are US in origin, sell to US markets or take their organisational cues from the working culture of silicon valley. In Ireland, as in the US, the project team is at the centre of the work organisation, and indeed many of the Irish teams stretch across the globe, and include US based employees. This study concurs with accounts of the production process drawn from Irish workplaces (O'Riain 2002) and the US (Perlow 1997) in which the work process is described as one in which the intensity of the work increases as deadlines are approached, and declines once deadlines are passed. Perlow describes an additional type of workplace, one in which a sense of continual urgency was evident. One of the workplaces within this study could be described as having a similar working culture.

Yet for all these similarities, differences were also evident. The most obvious difference was in terms of working hours. There
are a number of accounts from the US that indicate that extremely long hours are worked ((Hochschild 1997); (Schor 1991); (Bronson 1999); (Kidder 1981); (Perlow 1997)). Perlow and Kidder refer to long hours as those between 70-90 hours (Perlow 1997). Even the longest week noted within this study (65.6 hours) fell short of this number. O’Riain also notes that in his study of an Irish workplace, hours crept up to 60 hours, less than he assumed was occurring in Irish workplaces (O’Riain 2000). We have seen (in chapter four) that only a minority of those working in computers or computer services work longer than 45 hours a week (16.3%). Hochschild reported that 70% of those in Amerco, the company she studied, regularly worked overtime, while 49% regularly worked weekends (Hochschild 1997). Perlow noted that ‘managers do not consider a late afternoon or Saturday meeting a serious infringement of engineers’ time’ (1997: 37). This study showed that Irish software workers did view these as an infringement. The data firstly highlights that long, short and normal are relative terms, terms which must be considered with respect to national differences. The long working hours reported in the US literature are much longer than the working hours found in the Irish workplaces. Secondly, it highlights that in Ireland not all companies within the sector can be described as time greedy. Like this study, Perlow includes those who do not work long hours71. Her argument is that by opting out of the long hours culture, these employees are working against their companies temporal culture, and so their promotional opportunities are limited. She noted that in their annual reviews, those working long hours were ranked higher than those working shorter hours and that working long hours was equated with commitment to the company. Ability to achieve results in a more efficient manner was not rated as highly as willingness to stay on site. Visibility was seen to be a measure of productivity. In this study I did not

71 10 of the 17 engineers she studied did not work long hours.
have the access to the type of human resource and management data which Perlow was able to refer to. Therefore I cannot report with the same level of confidence whether, in Irish companies, working hours and job progression are related. However I can draw some conclusions from the software workers’ perceptions of their companies expectations of their working hours. Four different working cultures were evident. In one, there was a clear expectation that long hours would be worked (though not as long as found in the US) and long hours were rhetorically linked to reward (though not always in practice). Other employees felt there was no expectation that long hours would be worked. A similar group felt the expectation was that they should be willing to work a little longer on an occasional basis. Finally, in a related study, women managers reported that they felt that promotion to higher levels of management would bring with it the requirement of longer hours (Greco 2003). This final point can be seen as more a consequence of managerial roles and responsibilities rather than any particular characteristic of the IT sector itself. Bielenski et al report that across Europe those with managerial duties work longer hours than those without (Bielenski, Bosch et al. 2002). The variations between the first three working cultures described above indicates that in Ireland the long-hours working culture is not a universal characteristic of working in this sector. It exists in some companies, and not in others.


The reasons they identify for this are threefold; firstly their work is defined in terms of ‘results rather than working time’, secondly, this work is often not regulated by collectively agreed norms, a certain amount of overtime contractually expected and thirdly, some of those with managerial duties are not easily replaceable and so colleagues are less likely to be able to provide cover in case of their absence. However, as most of these points can also be applied to software engineers, who do not necessarily as we have seen, work long hours, it would seem that other explanations are necessary.
Perlow notes that in the US, the corporate assumption is that long hours are a consequence of global competition. This assumption is challenged by examining the alternative experiences of working hours found in the software sectors of other countries. I have described the Irish experience, one in which a sizeable minority are working long hours (as in more than 45 hours a week) and sizeable minority are working normal hours (as in between 35-39 hours a week). These findings are mirrored in other European countries. Studies of working hours in the software sector in Denmark, the Netherlands, Germany and the UK also found that while a proportion of employees work long hours, a proportion do not (Plantenga, Remery et al. 2001). In the UK for example 34% of those in Nace 72 work longer than 45 hours a week, while 31% work between 34 and 40 hours a week (Smith 2001). While in Finland, a different temporal culture again is evident. Working hours are remarkably normal, with 69% of employees in Nace 72 working between 35 and 40 hour weeks.

These findings highlight the importance of the national context in framing the work organisation. It reinforces Tovey's claim that 'all sociologies are 'national' sociologies' (Tovey and Share 2000: 4). She argues that Irish sociology has been shaped by the English speaking sociologies of England and America and urges us to be critical of accounts which read as universal reality yet refer more narrowly to the experiences of those two countries. This thesis similarly warns us not to assume that Irish workplaces are patterned along the same lines as those of our neighbours across the Irish channel and the Atlantic.

**Implications:**
These findings should make us critical of any discourse which seeks to identify long working hours as an intrinsic feature of the use of a particular type of technology, work organisation or
economic form. Such discourses divert us from understanding that time is of our own making. As Adam argues:

It does make a difference to our lives whether we understand our social organisation by the clock and calendar as an inevitable fact of life, as a fact of history or as something we have created and imposed on ourselves and maintain by our daily actions. It constitutes the difference between having choices and seeing one's social life as determined (Adam 1994: 5).

This is important because a working culture rests very much on shared understandings and beliefs. If only the stories of those who work long hours are told, then these tales become the accepted norm, that is, it becomes an unquestioned assumption that working long hours is the norm. Similarly, it becomes an unquestioned assumption that non-working time is at the disposal of work time and a resource to be drawn on when required.

This thesis highlighted the experience of the hidden majority of those who do not work long hours, and some of that experience is indeed coloured by the conception of the industry as being one in which long hours are worked. So whether or not an individual felt their employer expected them to work longer hours or not,

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74 In this respect I disagree with the Plantenga et al when they argue that 'working in IT seems inextricably bound to working long hours' Plantenga, J., C. Remery, et al. (2001). New Forms of Employment and Working Time in the Service Economy (NESY) Country case studies conducted in five service sectors, European Trade Union Institute (ETUI): 1-59.

Their own data shows that long hours are experienced by sizeable groups within the sector, however it also identifies groups for whom long hours are not worked. Indeed they themselves highlight the high amount of variation in firms and working time practices. It would be more precise to conclude that for some, working in IT seems synonymous with working long hours. Such a conclusion moves away from any tendency towards technical determinism and opens up the possibility of considering what it is that differentiates those who work long hours from those who work more normal hours (In a later paper, referred to in chapter four, they do this by referring to issues such as the nature of the work done, company size etc) Plantega, J. and C. Remery (2002). “Organisation of Working times in IT.” Transfer 3(2): 347-468
they were always aware that long hours are part and parcel of working within the industry. The result of this is that those who are working long hours often see themselves as the rule rather than the exception within the industry.

It could be considered that this ‘stachnovite’ effect is what is keeping those who are working more ‘normal’ hours from reducing their hours further. Indeed what was interesting to note in this study is that despite control over one’s working hours, and the flexibility of the work process (which surely implies that at sometimes there was very little to do) so few of the participants took the opportunity to work much shorter hours. Perlow and Hotschield reported resistance to ‘family friendly’ policies such as part-time work, job-sharing or teleworking in the US workplaces they studied (Perlow 1997); (Hochschild 1997). Two of the participants in this study switched to part-time working, and one worked from home one day a week. However, their experiences would seem to be exceptional as CSO figures for the sector in general (quoted in chapter four) show that less than 3% work less than 35 hours a week. Gershuny suggests that one approach to inequality (particularly gender inequality) would be to re-consider what is meant by full-time jobs; a new ‘full-time’, shorter than what we now expect, would replace the ‘full-time’ and ‘part-time’ jobs of current society (personal communication)\textsuperscript{75}. For this to be considered within this sector, the perception of the sector as one in which long hours are the norm would have to be publicly challenged.

3. Irregular time

Separate from the issue of a long hours culture, is the issue of a flexible working hours culture. Indeed, focusing on those with

\textsuperscript{75} At a session on his book Changing Times, Work and Leisure in Post-Industrial Society, at the European Sociological Association Conference in Murcia, Spain, September 2003.
long hours arguably deflects attention from a much more significant change in working time culture which has occurred. Irregularity has returned to working time. This is not as simple as a move away from a clock based working time, towards a return to the time of the task (as it is often presented, particularly in oft repeated phrases such as 'it doesn't matter when I work, as long as the work gets done'). At issue here is the occasional and unpredictable nature of working hours. Indeed, in its essence this working time is a non-routine, non-usual type of working time, and hence can be difficult to capture in official statistics which are framed around the question ‘what are your usual hours worked’. This question is appropriate to an industrial working time in which time is regular, uniform and easily calculable. It is less useful in establishing the reality of a post-industrial working time in which working time is variable and not fixed. 

**Implications**

The problems inherent in irregular working hours are similar to those raised by long working hours, chiefly an encroachment of work time into non-work time which particularly discriminates against those with carer responsibility (such as those with children, elderly parents or sick relatives). Its unpredictable nature makes the organising of non-working time particularly problematic.

An additional problem is that it can be difficult to measure working time which is occasional rather than regular, exceptional rather than normal. Therefore, oppositional routes to such pressures are less clear.

Furthermore, while the fixed structure of working time of industrial society was conducive to the setting up of working

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76 In the Quarterly National Household Survey, within Nace 72, the numbers who note that their hours vary are quite low (8.7% of the total) and this emphasises the point that the variation in working hours I am referring to is not regular, it is occasional.
time standards which applied to all, within the more fluid practices of post-industrial society time is the opposing tendency. The irregularity of this working time leads to an increased individualisation of working time. Though most people in a workplace may face additional demands for their labour time, such demands occur at different times for different groups and individuals, such that long hours where they do occur are not felt uniformly by the whole workforce. It is likely that the fragmentation of pressure to work extra hours is one of the factors which explains the absence of enterprise-wide responses to such pressures.

A potential problem of such irregular demands is that in normalising the encroachment of working time over non-working time in periods of economic instability, such demands will become less occasional and more routine; that is, post-industrial time will give rise once more to industrial time. Furthermore, it will give rise to an industrial time which bypasses the reductions in working hours which occurred over the last century. However, the more routine and regular working hours become, the more the experience of one section of a workplace becomes the collective experience, and the more likelihood that there will be opportunity for larger collective opposition to undesirable working hours arrangements.

4. Beside Work time

Many of the participants were ‘time nomads’ in that their working life consisted of short stays in a number of workplaces. In this respect their ‘working life’ is quite different to the ‘working life’ of industrial society in which the expected norm was that a job would last for a considerable period of time. First I consider how the de-centring of one workplace also leads to a

77 Pressure is not totally individualised, it often falls on the project group rather than the sole engineer, and as such collective opposition to pressure can be identified, albeit at the micro-level of the project group rather than the enterprise.
de-centring of work as a locus of identity formation, and secondly I examine the declining importance of the workplace as the space in which social networks are created. Van Maneen & Barley define an occupational community as those who work in the same area and whose identity is closely bound to the work performed. They are a group with shared norms, values and perspectives, for whom social relationships encompass both work and leisure and whose social relationships meld work and leisure (Maanen and Barley 1984). Looking at an Irish workplace, O’Riain describes the surprising re-emergence of occupational communities ‘groups of workers whose vocations are defined as much by their mutual bonds and expectations as by their position in their employing organisations’ (O’Riain 2002: 37). In contrast, Casey argues that while traditionally occupations were of importance within organisations as they represented repositories of skill and knowledge, now ‘occupational distinctiveness, in a large corporate workplace, no longer matters’ ... ‘replacing occupation as a primary locus of class and self-identification in the corporate workplace is team and knowledge’ (Casey 1995: 108). This study suggests that by focusing on the individual workplace, Casey is missing the networks which exist between workplaces, networks which provide the same types of identity which in industrial society was found in geographical location. However those networks were not necessarily related only to occupation (as in possessing a particular skill or knowledge) but more broadly defined as being part of an industry. Networks of friendships and relationships existed between workplaces, so for example, the football team initiated in one workplace, perhaps to forge an identification with the company, persisted though most of its members now had moved on to other workplaces. In this research I interviewed groups from different occupations. The networks to which the interviewees belonged transcended these occupations. As described in chapter seven, they were networks
of nomads, of people who moved from workplace to workplace within the same industry.

Community formation is often seen in terms of space, either the local residential spaces of home or the shared space of the work enterprise. The importance of space is that it facilitates time, that is, relationships nurture and grow over time. It is through the sharing of spaces over time that interpersonal bonds develop. Bauman and Sennett express concern that with the end of a job for life, the space of the workplace will no longer be one that is shared over time, and this will negatively impact on ‘character’ (Sennett 1998) or our ‘hold on the present’ (Bauman 2001: 36) such that we will not be able to alter our futures for the better. However this thesis highlights that community formation, and the time required for it, is not dependent on immobility. While mobility may, as Sennett suggests, weaken bonds within the workplace (Sennett 1998), it can also result in the creation of bonds which exist between organisations and are not dependent on the space, place and time of the organisation in order to survive.

The second de-centring that was noted was that of the work as the centre of identity formation. Although the participants considered themselves professional, they were not (as we have just seen) wedded to a bureaucratic career. Despite the best efforts of their companies to foster commitment, they were not ‘company’ men and women. As the time frames of one’s ‘company life’ shortened, other times came to the fore, such that work time becomes one time among others, rather than the time of life. The displacement of ‘a job for life’ therefore has unforeseen consequences. The position of the time of work as the most central organising time in life becomes, in certain instances, less stable.

Therefore an unexpected finding of this thesis is that within these industries, despite the fact that the work in itself is often
highly intrinsically satisfying, there was also evidence of a de-
prioritising of work within one’s lives. That is, though the time
many of the participants spent in paid employment was found to
be satisfying, many of them looked beyond the workplace for
activities which they found to be more meaningful. Despite the
level of interest found within their workplace, the work process
was seen instrumentally, as a means of providing income which
they required to pursue their dreams; whether that be the dream
of creating music, writing a book, setting up a market garden or
travelling the world.

**Implications**

Closely linked with the development of industrial time was the
creation of a work ethic in which one’s work was not just a
central organising feature in society but central to one’s sense of
self and to one’s sense of community. Work was the key activity
which gave meaning and value to one’s life. Much of Thompson’s
famed ‘Time and Work Discipline’ describes the ways in which
this ethic became to be internalised, particularly through
industrial schools and religious tracts (Thompson 1991). If work
is to be equated with paid labour, in many respects what can be
seen here is an anti-work ethic, an ethic in which there is not
dignity in labour per se but rather the belief that labour should
meet some intrinsic personal need.

It is often argued that the ability of work within these workplaces
to meet this intrinsic need results in highly motivated and
committed employees. However, in this study it can be seen that
there is a double edged quality to this component of the work
process. The expectation of enjoyment can also de-motivate
when the work proves to be boring or mundane. It is as if the
promise of knowledge industries to provide work which is
challenging and interesting has created expectations and
demands which fuel job-mobility as fresh challenges are sought
and which, for some, ultimately can only be satisfied outside the workplace.

This process can be seen as an extension of adolescence with its idealistic denial of the daily necessities of work, or alternatively it could be evidence of a general move away from a male norm in which the workplace and the working life is the central point around which one's identity is formed.

Casey sees the corporate workplace as producing identities that are 'capitulated, pragmatic, strategic' (Casey 1995: 197) and as such are incapable of challenging the hold of corporate culture. She looks to

Self-constituting processes other than those of work and production (that) will configure selves and collective social life (in ways) that are qualitatively different from modern industrial configurations' (Casey 1995: 197).

In these networks and identities we perhaps have an inkling of the new self she envisages.

FUTURE RESEARCH

Three research agendas are suggested by this thesis, the first two are concerned with our understanding of time in society, the last is concerned with the software sector itself.

1. Boom Time

This thesis provides a snap-shot of working time in a very particular time in Ireland's economic history. It could be that the results are a product of labour market security experienced by those within the software industry. If so it would be expected that increased labour market insecurity experiences would result now in heightened pressure on working time. However opposing forces could also be operating. Firstly, if working hours are based on the promise of financial rewards,
either in terms of share options or pay rises, the current absence of those incentives would surely have an impact on working time. Secondly, as mentioned above, if working time pressure is felt more uniformly it opens opportunities for more wide-spread collective opposition to such pressure. Thirdly, there are indications that across Europe, as the industry and those who work within it mature, working time in the IT sector has declined since the early 1990’s. This could reflect an increased ability within the sector for collective limitation of working hours. All these points however are speculative, an extension of this study into the post-boom period is necessary in order to unpick the effect of the particular economic time of the boom on the working time experienced with the sector.

2. Other Times
This thesis does not, as Thompson (1991) does, argue that changes in working time causes changes in the temporal characteristics of society as a whole. It, much more modestly, focused on work time in one particular type of workplace. I suspect that one of the characteristics of post-industrial society is a heterogeneity in working times. Focusing on other types of working time, such as the time of the service sector would contribute towards producing a fuller account of this heterogeneity. In addition, though this thesis focused on work time as an organising principle, it does not suggest that it is the only institution which alters our understanding of time. Hochschild identified the impact of non-work time on working time (Hochschild 1997) while others have focused on the effect of other technologies (May and Thrift 2001). For example, changes in media technology, such as the video-player and the rise in 24 hour news channels have altered the importance of the 9 o’clock news. Focusing on time outside work, and on the effect of other

78 Indeed the majority of the participants were not involved in any political, activist or voluntary activity. Interestingly of three who were, all were women.
spheres of society on time would also enable me to develop a fuller account of time today.

3. End of the boom?
This third research agenda is concerned more with the software sector in itself than with post-industrial time. With the decline in software industry now being experienced, the question often asked is how will those working in the industry be able to protect themselves from the threat of work intensification? One possible research route was suggested by a side point raised by Thompson in *Time and Work Discipline* (Thompson 1991). In arguing that industrial working time was not imposed universally he describes the ‘great ports’ as one area where irregularity of working hours can still be found. As mentioned earlier, irregularity in working hours has been identified as one of the key components of working time in the software industry. This aside lead me to consider the comparisons between dockers and software workers. Dockers have a tradition of strong trade union organisation, whereas software workers are noted for their lack of collective strength. Yet many of the factors cited to explain this lack of collective organisation among software workers (individualism, job mobility, high rates of pay) were also found among dock workers. Indeed there are a surprising number of similarities between the two groups.

Until the 1970s, the docks were an important source of employment within Dublin city. Now, with the software industry primarily located in the city, the software industry provides an important source of employment. In both we find team work and self-management of work. We also find pressures towards individualisation. Dockers were employed on a daily basis, picked out by their employer at the ‘Read’. This meant that on a daily basis each docker was in competition with each other.
Accounts of software work highlight that although the engineers work in teams, there are individualising pressures which result in the prioritising of their own work above that of the team (Perlow 1997). Sennett asks 'How can long-term purposes be pursued in a short-term society?' (Sennett 1998: 27) and among software workers this short-term is seen in their high rate of job mobility, yet for dockers this mobility was even greater as their employer could change on a daily basis.

At times dockers, like software workers, possessed skills which were in great demand yet, as with software workers their work was dependent on the fluctuations of the world’s market. At times, like software workers, dockers were highly paid. Dockers had strong occupational identity which was located both in their work and in the geographical communities which surrounded the docks. While software workers’ identity is not drawn from the physical location of their homes, networks exist which centre on both the industry they belong to and city in which they live.

The big difference between the two groups (excepting that one is manual and the other is white collar) lies in the ability of Dockers to create strong collective organisations and the inability (or unwillingness?) of software workers to do so. An examination of this point could provide may provide fruitful insights in considering the future possibilities for software workers now that the economy is not so buoyant.

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79 The ‘Read’ is the name given to the daily event during which dockers were picked for work.


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## APPENDIX ONE: THE PARTICIPANTS

### Software Engineers

<table>
<thead>
<tr>
<th>Name</th>
<th>Age Range</th>
<th>Education</th>
<th>Occupation</th>
<th>Residence</th>
<th>Career Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermot</td>
<td>In his earlier thirties.</td>
<td>Computer science graduate.</td>
<td>Lived with his wife.</td>
<td>Works in Lucid</td>
<td></td>
</tr>
<tr>
<td>Even</td>
<td>In his late twenties.</td>
<td>Computer science graduate.</td>
<td>Lived with his partner.</td>
<td>Worked in Felix initially, moved briefly to Snug and then moved to Steeltrace.</td>
<td></td>
</tr>
<tr>
<td>Fergal</td>
<td>In his late twenties.</td>
<td>Didn’t go to university.</td>
<td>Lived with partner.</td>
<td>First job was in Felix, at time of thesis was working in Webco.</td>
<td></td>
</tr>
<tr>
<td>James</td>
<td>In his early thirties.</td>
<td>Mathematics graduate.</td>
<td>Worked in Cobh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kevin</td>
<td>In his early twenties.</td>
<td>Computer science graduate.</td>
<td>Just graduated from college.</td>
<td>Worked in Radar.</td>
<td></td>
</tr>
<tr>
<td>Karl</td>
<td>In his late twenties.</td>
<td>Computer science graduate.</td>
<td>Lived with partner (Linda below).</td>
<td>Worked in Quill.</td>
<td></td>
</tr>
<tr>
<td>Mark</td>
<td>In his early thirties.</td>
<td>Mathematics graduate.</td>
<td>Lived with wife.</td>
<td>Worked in Delf.</td>
<td></td>
</tr>
<tr>
<td>Nick</td>
<td>In his late twenties.</td>
<td>Computer science graduate.</td>
<td>Worked in Mindset initially, then moved to Anois.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joe</td>
<td>In his late twenties.</td>
<td>Computer science graduate.</td>
<td>Lived with partner.</td>
<td>Worked in Oblige initially as a contractor, then left to set up his own company.</td>
<td></td>
</tr>
<tr>
<td>Ewen</td>
<td>In his late twenties.</td>
<td>Computer science graduate.</td>
<td>Worked in Felix initially than moved to Lull.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike</td>
<td>In his early thirties.</td>
<td>Mathematics graduate.</td>
<td>Lived with wife (Susanna below)</td>
<td>Worked in Cobh.</td>
<td></td>
</tr>
<tr>
<td>Karl</td>
<td>In his early twenties.</td>
<td>Computer Science graduate.</td>
<td>Just graduated from college.</td>
<td>Worked in Mindset</td>
<td></td>
</tr>
<tr>
<td>Catherine</td>
<td>In her mid twenties.</td>
<td>Computer Science graduate.</td>
<td>Worked in Cobh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aoife</td>
<td>In her late twenties.</td>
<td>Arts graduate who has gradually moved into a more technical role.</td>
<td>Lived with partner.</td>
<td>Worked in Harp.</td>
<td></td>
</tr>
</tbody>
</table>
### Marketing and Purchasing

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
<th>Living Situation</th>
<th>Work History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sean</td>
<td>In his late twenties</td>
<td>Didn't go to university. Worked in the Purchasing department in Felix.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conor</td>
<td>In his late twenties</td>
<td>Didn't go to university. Lived with partner who also works in the industry. Worked in Cobh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnny</td>
<td>In his late twenties</td>
<td>Business Science Graduate. Lived with partner. Worked in Felix initially, then moved to Net-Work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linda</td>
<td>In her late twenties</td>
<td>Mathematics Graduate. Lived with Karl above. Worked in Felix initially the moved to Render briefly and then to Anois.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Technical Writing

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Education</th>
<th>Living Situation</th>
<th>Work History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helen</td>
<td>In her late twenties</td>
<td>Arts graduate. Lived with partner. Worked in Dab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mary</td>
<td>In her late twenties</td>
<td>Arts graduate. Lived with partner who also works in the industry. Worked in Dab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Susanna</td>
<td>In her late twenties</td>
<td>Arts graduate. Lived with Mike above. Worked in Dab initially, then became an independent contractor.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX TWO: THE COMPANIES

LARGE, IRISH OWNED COMPANIES*

<table>
<thead>
<tr>
<th>Company</th>
<th>Establishment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felix</td>
<td>Established 1991. At time of research employed 600 with offices in Germany and Boston. Listed on NASDAQ. Large numbers of redundancies in 2002 and 2003.</td>
</tr>
<tr>
<td>Cobh</td>
<td>At time of research listed on NASDAQ, with offices worldwide, employing 360 people. Closed in 2003</td>
</tr>
<tr>
<td>Dab</td>
<td>At time of research listed on NASDAQ and employed 440 people in Dublin, and 1,400 worldwide. Bought by a US multinational in 2002</td>
</tr>
</tbody>
</table>

*note in order to protect the anonymity of the participants the company names have been changed.
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindset</td>
<td>Partially owned by an Irish public body, an Irish university and a Swedish computer company. At time of research employed 40.</td>
</tr>
<tr>
<td>Webco</td>
<td>Founded in 1999. At time of research employed 22. Closed in 2003</td>
</tr>
<tr>
<td>Quill</td>
<td>Founded in 1992. At time of research employed 65. Closed in 2001</td>
</tr>
<tr>
<td>Lull</td>
<td>Founded in 1998. At time of research employed 54 with offices in London, Madrid, Rotterdam, New York and Frankfurt</td>
</tr>
<tr>
<td>Render</td>
<td>Founded in 1987. Partially owned by Irish public body,.. At time of research employed 35. Closed in 2001</td>
</tr>
<tr>
<td>Net-work</td>
<td>At time of research employed 35. Bought by a US company in 2002</td>
</tr>
</tbody>
</table>
### NON-IRISH OWNED COMPANIES

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucid</td>
<td>Large US multinational</td>
</tr>
<tr>
<td>Harp</td>
<td>Large US multinational</td>
</tr>
<tr>
<td>Oblige</td>
<td>Large US multinational. European Headquarters based in Dublin</td>
</tr>
<tr>
<td>Delf</td>
<td>Large French multinational, pulled out of Ireland in 2002.</td>
</tr>
<tr>
<td>Snug</td>
<td>US company, offices in North America and Europe. Moved corporate HQ to Ireland in 2000. At time of research employed 30 in Dublin</td>
</tr>
</tbody>
</table>
Name: xxxxx

How to fill in your weekly Diary

You should record events as soon as possible after they have occurred. Try not to put it off as long as you get a chance. Try not to let the diary keeping influence your behavior.

Instructions for Use

a  Between 0-5 minutes
b  Between 6-10 minutes
c  Between 11-15 minutes
d  Between 16-30 minutes
e  Between 31-45 minutes
f  Between 46-60 minutes

Do not include reading e-mail unless it is both not work related and longer than 5 minutes.

- Was this a typical week?
  No

- If not, can you tell me how it was different from other weeks
  I was sick Monday, Tuesday, Wednesday but had to come in + finish a job. Hence also working late on Tuesday night.
How to fill in your weekly Diary

You should record events as soon as possible after they have occurred. If you can’t fill it in immediately, fill it as soon as you get a chance. Try not to let the diary keeping influence your behavior.

When you start work: Write the exact time you started in the box with the same hour
Eg if you started at 9.45, write 9.45 in the 9 am box.

If you are working in the office: Put a cross through your start time.

If you are working at home: You circle round your start time.
Put a circle in all the boxes until you stop working at home.

When you leave work: Write the exact time you finished in the box with the same hour
Eg if you finish at 5.45, write 5.45 in the 5 pm box.

Breaks: If you take a break, indicate how long it was by using the following

a. Between 0-5 minutes
b. Between 6-10 minutes
c. Between 11-15 minutes
d. Between 16-30 minutes
e. Between 31-45 minutes
f. Between 46-60 minutes

So if you took a break at 10.15 that lasted 5 minutes, you would put (a) in the 10 am box.
If you took another break at 10.45 that lasted 30 minutes, you would also put (d) in the 10 am box.
APPENDIX FOUR: SAMPLE DAILY DIARY

Thursday the 27th of July 2000

Morning

6:00 am - Get up
7:00 am - Shower and have breakfast
8:00 am - Go to work

Afternoon

12:00 pm - Have lunch
1:00 pm - Back to work
4:00 pm - Leave work

Evening

4:30 pm - Work from home
6:00 pm - Dinner
8:00 pm - Watch TV

Notes:
- Work from home
- Read some books
- Spend time with family
- Enjoy the weekend

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<table>
<thead>
<tr>
<th>Morning</th>
<th>Afternoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-6.30 am asleep</td>
<td>12.00 -12.30 pm work on curriculum plan, look at stuff on web</td>
</tr>
<tr>
<td>6.30-7.00 am asleep</td>
<td>12.30 1.00 pm read email, walk to Donnybrook and buy sandwich</td>
</tr>
<tr>
<td>7.00-7.30 am asleep</td>
<td>1.00-1.30 pm walk back from Donnybrook and eat lunch</td>
</tr>
<tr>
<td>7.30-8.00 am asleep</td>
<td>1.30-2.00 pm eating lunch, looking through some source material</td>
</tr>
<tr>
<td>8.00-8.30 am asleep (played gig last night - slept late!)</td>
<td>2.00-2.30 pm reading source material, continuing to update curriculum plan</td>
</tr>
<tr>
<td>8.30-9.00 am shower and dress</td>
<td>2.30-3.00 pm procrastinating - reading Irish Times on web!</td>
</tr>
<tr>
<td>9.00-9.30 am go out to café for breakfast (treat!)</td>
<td>3.00 -3.30 pm work on curriculum plan</td>
</tr>
<tr>
<td>9.30-10.00 am finish breakfast, cycle to work</td>
<td>3.30-4.00 pm work on curriculum plan, get drink from vending machine, read stuff on web!</td>
</tr>
<tr>
<td>10.00-10.30 am arrive in work, read email</td>
<td>4.00 -4.30 pm work on curriculum plan</td>
</tr>
<tr>
<td>10.30-11.00 am read email, send work mail</td>
<td>4.30-5.00 pm ditto</td>
</tr>
<tr>
<td>11.00-11.30 am have cup of tea, work on curriculum plan</td>
<td>5.00 -5.30 pm ditto</td>
</tr>
<tr>
<td>11.30-12.00 am work on curriculum plan</td>
<td>5.30-6.00 pm read stuff on web, more work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evening</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00 -6.30 pm working still on wretched curriculum plan, leave work 6.25</td>
<td>12.00 -12.30 am still in pub, leave pub</td>
</tr>
<tr>
<td>6.30-7.00 pm cycling into town</td>
<td>12.30-1.00 am get home, go to bed</td>
</tr>
<tr>
<td>7.00-7.30 pm in the supermarket</td>
<td>1.00-1.30 am asleep</td>
</tr>
<tr>
<td>7.30-8.00 pm sitting down with a cup of coffee!</td>
<td>1.30-2.00 am asleep</td>
</tr>
<tr>
<td>8.00-8.30 pm cooking</td>
<td>2.00-2.30 am asleep</td>
</tr>
<tr>
<td>8.30-9.00 pm visitors arrive, still cooking, serve dinner</td>
<td>2.30-3.00 am asleep</td>
</tr>
<tr>
<td>9.00-9.30 pm eating</td>
<td>3.00-3.30 am asleep</td>
</tr>
<tr>
<td>9.30-10.00 pm finishing meal, go out to pub</td>
<td>3.30-4.00 am asleep</td>
</tr>
<tr>
<td>10.00-10.30 pm in pub</td>
<td>4.00-4.30 am asleep</td>
</tr>
<tr>
<td>10.30-11.00 pm in pub</td>
<td>4.30-5.00 am asleep</td>
</tr>
<tr>
<td>11.00-11.30 pm in pub</td>
<td>5.00-5.30 am asleep</td>
</tr>
</tbody>
</table>
Some Further Questions

- Was this a typical day?

- If not, can you tell me how it was different from other days?

If you need to clarify or explain any of your entries or have any comments, please include them here.

Instructions

How to fill in your Daily Diary

You should record events as soon as possible after they have occurred. If you can’t fill it in immediately, fill in it as soon as you get a chance. Try not to let the keeping the diary influence your behavior.

I am interested in finding out what you are doing at particular times.

Every half hour I would like you to fill in what you did in the proceeding half hour.

I would also like you to tell me where you were during the proceeding half hour.

Eg.

9.00-9.30 sleeping, alarm went off 9.45, turned it off, sleeping
10-10.30 am 10.30-11.00 am woke up, listened to radio, made tea, drank in bed

Check list of things you might be doing:
- Eating
- Sleeping
- Traveling to work
- Socializing (drinking in a pub, watching TV)
- Talking to work colleagues

If you are working on a number of tasks, give them a number to distinguish between them.

Eg. 12.00-12.30 worked on task one, finished task two

If you have any queries I can be reached at aocarrol@tcd.ie or 608 2085.
Guidelines for Interview One

**Work History**
How long since you graduated? How long have you been working as a programmer? Is this your first job? How many previous workplaces have you been in? Why did you decide to move from your previous workplace? How long do you think you will stay in this job? How did you get this particular job? How is it related to jobs you have done in the past, in the firm or outside the firm?

**Current Work Experience**
Describe your job to me? Describe an average working day (do you have an average working day)? Is your work varied or is it repetitive? Can you vary or control your own workplace? Do you work to deadlines? When is your next deadline?

**Time**
What hours are you contracted to work? Do you have a fixed starting and finishing time? Do you have to keep note of your working hours for your employers? Are break times fixed in your contract?

**General attitudes towards time**
Do you wear a watch? Would you know what time it was without looking at a watch? Suppose you wanted to meet somebody after work? What time would arrange to meet them at? What time do you think you would arrive at?

**Weekly diary**
How did you find filling in the weekly diary? Did you find it difficult? Was this a typical week? Did you include reading e-mail as a break? How much e-mail is work related? How much personal? How many email lists are you on?

*These questions to be asked in conjunction with the diary*

**Starting work**
What time would you like to get to work by? What affects the time you get to work? What do you feel about the time you start work? (do you feel guilty? pleased? Rushed) Has the time you start work ever been commented on (by partners, friends, work mates, employers)?

**Finishing work**
What time do you think you should leave work by? What affects the time you leave work?
What do you feel about the time you leave work?
Has the time you finish work ever been commented on (by partners, friends, work mates, employers?)

**Breaks**

Where did you have lunch? Did you have it alone or with others?
How did you decide how long to take?
What do you do for a short break?
How do you decide to take them?
Where do take them?
What do you do for a short break?
How do you decide to take them?
Where do take them?

**Daily Diary**

Was there anything unusual about the day? How typical was it?
How did you find filling in the weekly diary. Did you find it difficult?
Would you plan how long you intend to spend doing something in work/out of work (give example)
Did you socialise with people from work? Did you meet them through work or did you know them previously?

**New Years Eve**

Are you working it?
Guidelines for Interview Two

Review questions arising from earlier interviews

**Supervision and Management**
How and by whom is your work supervised?
What is the quality of your relationship with the person who supervises your work?
Are you subject to any computer-based supervision?
Are you subject to any other machine-based forms of control?
Is your e-mail, web surfing monitored?
How many layers of management are there in your workplace?
How many people between you and the CEO?
How formal are the management structures?

**Sickness**
What has your sickness record been like since you began this job?
What have your immediate employees sickness records been like?
Do you ever feel guilty for taking time off sick?
Does your employee make you feel uncomfortable for taking time off sick?
Do you take sick days when you are not physically sick?

**Holidays**
How many holidays do you get a year?
Are holidays important to you?
Do you take them all?
Do have difficulty taking them when you want?
What do you normally do for holidays?
How do you decide to take them?
How do you feel after your holidays?

**Rhythm**
Effect of bank holidays after Easter?
Effect of fall in share price?
Was there period of intense work around January?

**Training**

Have you been on formal training courses?

How do you keep skills up to date?

When do you do it?

What information sources do you use (web mailing lists, experts, books)?

How do you decide what to learn?
Guidelines for Interview Three

**Orientation to work**
Do you enjoy your work?
Do you find it interesting?
What aspects of your work do you enjoy? not enjoy?

**The workplace (culture)**
Who do you work with? What kind of immediate workmates do you have?
What gender are your immediate colleagues?
What gender are the employees in the workplace as a whole?
Who do you talk to or communicate with in the course of your work?
Have there been changes recently in the organization which have affected your work? If so in what way have they done so?
Has this workplace changed over time? (are you in new workplace?)
How does this workplace differ from your previous workplaces?
Looking over the last year in work, how do you think it has been? How would you describe it?
What efforts are made to retaining workers?

**The Physical Environment**
How many people employed in your workplace?
What is your workplace like as a physical environment (size, number of employees in one space, light, noise, dirt, space for each employee to work in)?
Do you work in an office or from your home?
Is your workplace in or near the rest of the organisation?
Do you have physical access to the rest of the organisation?

**Family circumstances**
Are you married or living with a partner?
Do you have any children? If so how many and what are their ages now?
Do you have any other dependants?

**HomeTime**
Cooking
Eating
Housework
Shopping

Do you have much free time?
What do you do with your free time?
Other activities (hobbies/evening courses/sports/political/volunteer work etc)?

Do you think you work long hours?
If you could, how would you change your working hours?
What do you think the company expects from you in terms of working hours?

**Salary Scale**
Do you mind telling people what your salary is?
Would you know how much other people are earning in your workplace?
How would you fit in on the salary scale of your workplace?
How much would you hope to be earning next year?
Are you a homeowner or renting? what percentage does mortgage or rent take up of income?
Shares? how many, when vest? attitude towards?

**Time Perceptions**
List the three most important things you do with your time?
List the three most time consuming things you do with your time?
What are your future plans?
Can you give me an example of a time that was special (in the way New Years Eve wasn’t). Tell me about it?

Has participating in this study changed the way you think about time?
APPENDIX SIX: NUDIST CODES

(1) /Length
   (1 1)/Length/Start
   (1 2)/Length/Finish
   (1 3)/Length/Decision
      (1 3 1)/Length/Decision/Task
   (1 4)/Length/Attitude to

(2) /Boundaries
   (2 1)/Boundaries/DayDef
   (2 2)/Boundaries/Work-Time
   (2 3)/Boundaries/maintaining
   (2 4)/Boundaries/Commuting
   (2 5)/Boundaries/Fragment
   (2 6)/Boundaries/cooking
   (2 7)/Boundaries/shopping
   (2 9)/Boundaries/housework
   (2 10)/Boundaries/Home

(3) /Porosity
   (3 1)/Porosity/Lunch
   (3 2)/Porosity/breaks
      (3 2 1)/Porosity/breaks/work
   (3 3)/Porosity/INTENSITY
   (3 4)/Porosity/smoking
   (3 5)/Porosity/Decisions

(4) Perceptions
   (4 1)/Perceptions/Awareness
   (4 2)/Perceptions/Personal
   (4 3)/Perceptions/Types of time
      (4 3 1)/Perceptions/Types of time/Commodified
      (4 3 2)/Perceptions/Types of time/Clock Time
      (4 3 3)/Perceptions/Types of time/Non-work time
      (4 3 4)/Perceptions/Types of time/Time-Space
      (4 3 5)/Perceptions/Types of time/Natural
      (4 3 6)/Perceptions/Types of time/Work time
      (4 3 7)/Perceptions/Types of time/Local
      (4 3 8)/Perceptions/Types of time/volunteering
      (4 3 9)/Perceptions/Types of time/housework
   (4 4)/Perceptions/Senses of time
      (4 4 1)/Perceptions/Senses of time/Future
      (4 4 2)/Perceptions/Senses of time/Past
      (4 4 3)/Perceptions/Senses of time/Early
      (4 4 4)/Perceptions/Senses of time/Late
      (4 4 5)/Perceptions/Senses of time/Timelessness
      (4 4 6)/Perceptions/Senses of time/Simultaneous
      (4 4 7)/Perceptions/Senses of time/Time-Squeeze
         (4 4 7 1)/Perceptions/Senses of time/Time-Squeeze/work
         (4 4 7 2)/Perceptions/Senses of time/Time-Squeeze/non-work
      (4 4 8)/Perceptions/Senses of time/waste

(5) Self management
   (5 1)/Self management/Tasks
   (5 2)/Self management/taking
   (5 3)/Self management/unpredictable
   (5 4)/Self management/frame
      (5 4 1)/Self management/frame/job-frame
      (5 4 2)/Self management/frame/task-frame
(5 5)/Self management/multitasking
(5 6)/Self management/strategies
  (5 6 1)/Self management/strategies/intensity
(5 7)/Self management/time
(5 8)/Self management/timesheets

(6) WorkOrg
(6 1)/WorkOrg/Job
  (6 1 1)/WorkOrg/Job/specialist
  (6 1 2)/WorkOrg/Job/knowledge
  (6 1 3)/WorkOrg/Job/meetings
  (6 1 4)/WorkOrg/Job/contractor
(6 2)/WorkOrg/Learning
  (6 2 1)/WorkOrg/Learning/training
(6 3)/WorkOrg/Teams
  (6 3 1)/WorkOrg/Teams/Global
(6 4)/WorkOrg/Management
  (6 4 1)/WorkOrg/Management/timesheets
  (6 4 2)/WorkOrg/Management/layers
  (6 4 3)/WorkOrg/Management/production chain
  (6 4 4)/WorkOrg/Management/monitoring
(6 5)/WorkOrg/Culture
  (6 5 1)/WorkOrg/Culture/collegial
  (6 5 2)/WorkOrg/Culture/informal
  (6 5 3)/WorkOrg/Culture/bureaucratic
  (6 5 4)/WorkOrg/Culture/not Irish
  (6 5 5)/WorkOrg/Culture/Local
  (6 5 6)/WorkOrg/Culture/commitment
(6 6)/WorkOrg/Flexibility
  (6 6 1)/WorkOrg/Flexibility/Movement
  (6 6 2)/WorkOrg/Flexibility/speed
  (6 6 3)/WorkOrg/Flexibility/perks
(6 7)/WorkOrg/Security
  (6 7 1)/WorkOrg/Security/security
  (6 7 2)/WorkOrg/Security/insecurity
(6 8)/WorkOrg/Solidarity
  (6 8 1)/WorkOrg/Solidarity/solidarity
  (6 8 2)/WorkOrg/Solidarity/Individual
  (6 8 3)/WorkOrg/Solidarity/sociability
  (6 8 4)/WorkOrg/Solidarity/networks
(6 9)/WorkOrg/Orientation
  (6 9 1)/WorkOrg/Orientation/Instrumental
  (6 9 2)/WorkOrg/Orientation/Other
  (6 9 3)/WorkOrg/Orientation/salary
(6 10)/WorkOrg/Homework
(6 11)/WorkOrg/size

(7) TimeFlex

(F) Free Nodes
(F 1)/Free Nodes/online time
  (F 1 1)/Free Nodes/online time/email
  (F 1 2)/Free Nodes/online time/web
(F 2)/Free Nodes/Space
(F 3)/Free Nodes/Shares
(F 4)/Free Nodes/Rhythms
  (F 4 1)/Free Nodes/Rhythms/daily
  (F 4 2)/Free Nodes/Rhythms/weekly
(F 5)/Free Nodes/NYE
(F 6)/Free Nodes/Deadlines
(F 7)/Free Nodes/Methodology
(F 8)/Free Nodes/Boredom

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(F 8 1)/Free Nodes/Boredom/Interest
(F 9)/Free Nodes/Women
(F 10)/Free Nodes/sickness
(F 11)/Free Nodes/andrewblackmore
(F 12)/Free Nodes/holidays
(F 13)/Free Nodes/timewants
    (F 13 1)/Free Nodes/timewants/expectations
(F 14)/Free Nodes/travel