

Alienation
and
Information Communications Technology

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by

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Abstract

This study explores the contradiction of the heart of ICT: the technology presents to us all manner of possibilities yet it habitually fails to deliver on those promises. This failure is often seen as arising from either a problem with the technology or end-user proficiency. Thus better technology and/or more effective end-user education are seen as the solutions.

This study is based on the premise that such approaches are inherently faulty and explores how applicable notions of alienation can be in researching the contradictory nature of ICT. By using a critical realist methodology allied to tools available through PAR, this investigation engaged with participants in three distinct settings: ICT professionals; scholars concerned with researching the ethical/societal implications of ICT; and a group of pensioners living in South East London, UK.

The research interrogated the literature concerned with themes of alienation and ICT to show there is a consensus that something called alienation does exist but that the term is used as a poorly defined descriptor of dissatisfaction with ICT. It also revealed that minimal research in the subject area has been undertaken using theories of alienation and none which involve multiple settings.

The thesis makes an original and distinct contribution to the field by utilising one approach to alienation, that presented by Marx, in three seemingly disconnected settings to draw out the underlying commonalities shared by participants of these settings. In doing so, the findings challenge widespread assumptions about end-user experience of ICT and offer new insights into the much mentioned but little understood alienated way we experience ICT. Moreover, the thesis, in moving beyond description of alienation, to reveal the genesis of the condition, indicates the inadequacy of simply using the term alienation as an ill-defined label to describe people's experiences of ICT. It argues for embracing a more rigorous approach to the issue to realise the significant

potential offered through investigating and applying theories of alienation in research. Additionally it advances knowledge in the area by emphasising shared experiences of user groups which has considerable implications for future research. Finally the thesis is unique in highlighting the prospective benefits to be realised by researchers in adopting a CR methodology working in tandem with PAR methods in ICT research.

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As Chaucer, Cervantes and more recently, Estevez, and, above all, Homer, record no journey is ever taken alone; each encounter and conversation with other travellers *en route* adds to life's rich tapestry, encourages reflection and opens up new directions and possibilities. In undertaking this research, I have had the privilege of having had numerous encounters and conversations with many interesting people. The first acknowledgement must be to those who agreed to participate in the study: the ICT professionals, the scholars, and the pensioners in Southwark. It is simply stating the obvious to say that without their commitment this work would not have been completed. As part of my debt to them, I have tried to preserve their presence in the narrative as people rather than as simply subjects for study.

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In memory of Tony Cliff and Duncan Hallas

They simply helped to lift the scales from my eyes so I
could see life as it is and learn how to change it.

Glossary

AUS Australia

CDA Critical discourse analysis

CCSR Centre for Computing and Social Responsibility

CPSR Computer Professionals for Social Responsibility

CR Critical realism

EU European Union

ICT Information and Communications Technology

IS Information Systems

IT Information Technology

PAR Participatory Action Research

SPAG Southwark Pensioners' Action Group

SPC Southwark Pensioners' Centre

SA South Africa

UK United Kingdom

US United States of America

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Chapter 1: Introducing the research

1.1 Research motivation

There is a substantial contradiction at the heart of our experience of information communications technologies. ICT offers to us all kinds of possibilities that could enrich our lives in many different ways; yet the technology habitually fails to deliver on its promises, leaving us to grapple with profoundly negative experiences, be they at a global, national, local, organisational or personal level. Often the genesis of this contradiction is identified as arising from issues such as inadequate technology, poor policy decisions, or problems emanating from limited end-user proficiency, or a mixture of all three, thereby encouraging the view that the development of better technology and/or better policy initiatives and/or improved end-user education will resolve the contradiction.

Yet despite the wide-ranging and sometimes positive initiatives flowing from this approach, the contradiction remains. Indeed as more people use ICT and growth in the numbers using ICT increases, the deeper and wider the contradiction appears to be. Experience of ICT can lead, for example, to normally calm people being enraged with their personal computers or technology in general; to drive those proficient in a range of skills to denigrate themselves by saying “I am not very good with computers”; to feed a fear of what the technology can do; to an adverse disruption of family and work life; and to facilitate major economic crises. Thus this research was motivated by one simple question: what feeds the contradiction leading to people experiencing ICT in a profoundly negative way?

This study is based on the premise that approaches focused on, for example, providing better technology and/or more effective end-user education are inherently limited, in terms of addressing the issues mentioned immediately above. Instead, this research seeks to explore the problem from a radically different, if not new, perspective to

investigate how applicable notions of alienation can be in researching the contradictory nature of ICT and in doing so seek to make a contribution to the existing body of knowledge.

Of course in order to undertake an investigation of this type a number of subsidiary questions need to be formulated and these are the subject of the next section.

1.2 Research questions

Initially two research questions were developed:

How valuable are theories of alienation in explaining people's experience of ICT?

How valuable are theories of alienation in investigating people's experience of ICT?

However, as the initial phase of the research progressed it became clear that these questions needed refinement. There are different theories of alienation (for further details see Chapter 2.4 and 2.5) and it was decided to focus on one particular theory of alienation; advanced by Marx. This led to an editing of the research questions resulting in the following:

How effective is Marx's theory of alienation in explaining people's experience of ICT?

To what extent can his theory be used as a framework for investigating people's experience of ICT?

Formulated like this however, these questions still have a weakness in that they rest at a rather abstract level and needed to be more focused by referencing the specific tasks undertaken in the research. This led to the formulation of the following set of questions:

RQ1: How effective is Marx's theory of alienation in seeking to investigate the experience of participants in three distinct settings: ICT professionals, scholars, and pensioners, as it relates to ICT?¹

RQ2: How effective is the explanatory power of his theory in identifying a commonality of experiences both within and between the three settings?

RQ3: To what extent can his theory be of use in providing a framework for undertaking the research in the three settings?

A further question also arose which was directly related to the method employed in the research:

RQ4: To what extent can PAR linked to CR make a positive contribution to research of this nature?

The decision to use Marx's theory of alienation was primarily informed by the nature of the theory itself with its emphasis on a totality of view as opposed to others which tend to focus on de-coupled aspects of alienation. The decision was supported by the review of the literature outlined in Chapter Two.² Marx's approach to alienation is contentious as well as being regarded as difficult to operationalise thereby presenting significant challenges, and risks, for research of this nature. But we all enjoy a good argument, don't we, and normally there is no effort or fun to be had in scaling a three foot wall: the higher the climb, the greater the view.

Having outlined the nature of the research questions and pre-signified the arguments justifying the choice of approach, the discussion will now look at the aims of the research.

¹ Chapter Four describes the motivation governing the selection of these settings in more detail.

² For a fuller discussion of this issue see section 2.5

1.3 Research aims

As has been mentioned above the purpose of this research is to investigate the validity of using theoretical concepts from other fields to study the contradictions associated with the use of ICT; specifically this will involve employing existing theories of alienation to provide a framework for examining the use of ICT. While in a previous period there was a rich seam of research related to alienation based on the theories of those such as Seeman and Marx, more recently this perspective has been largely neglected. However, a pulse of interest in this approach can be detected with contributions in journals such as *Work, Organisation, Labour and Globalisation* and *Triple C Communication, capitalism and critique*, indicating that the contradictory reality of ICT is beginning to be addressed by researchers in the field using theories of alienation. The work undertaken for this thesis is part of this process.

The aims of this research are:

- To make a unique contribution to research concerned with investigating the relationship between society and ICT;
- To buttress and aid the re-discovery of alienation theory in researching this area;
- To provide a rigorous test bed for Marx's theory of alienation;
- To assess the pertinence of PAR methods, working within an overarching framework informed by CR, to studies of this nature;
- To identify further areas of research;
- To produce a piece of work that has a worth beyond the immediate goal of achieving an academic qualification.

By using a critical realist methodology allied to tools available with PAR, this investigation sought to engage with participants in three distinct settings: ICT professionals, scholars concerned with researching the ethical/societal implications of

ICT, and a group of pensioners living in South East London, UK. In doing so it provides a set of contrasting contexts within which to examine Marx's theory of alienation and to provide a measure of quality through triangulation.

1.4 Structure of the thesis

So far this Chapter has outlined the motivation for the research as well as the research questions and the aims of this study. This last section outlines the structure of the thesis.

Chapter Two is concerned with a review of the research associated with alienation and it starts by looking at the key moments in the development of theories of alienation before outlining in detail the perspectives of Marx and Seeman, two of the key contributors to this area. It then goes on to look at how theories of alienation have been used in recent research, with particular reference to Mann, before concluding with a review of the literature linked to ICT professionals, scholars and age. Part of the purpose of this Chapter is to pre-signify themes that appear later in the thesis.

Chapter Three focuses on research design and methodology. After outlining a number of possible approaches for research, it provides the rationale for the chosen methodology, CR underpinned by the tools available with PAR. This Chapter concludes by looking at ethical considerations in research activity.

Chapter Four provides a description of the organisations and individuals that go to make up the subjects of the settings adopted for the research. As such it details the processes involved in obtaining the data from sessions based work and individual and group interviews.

Chapters five, six, seven and eight form the core of the thesis and they include a description and analyses of the data gathered from each of the chosen settings. In a perhaps slightly unusual approach, the end of each Chapter includes an analysis linked

to the data for that specific setting or theme, as is the case with Chapter Seven. This route has been taken simply to aid the development of a robust structure, where data and analysis are in close proximity, thereby helping to underpin a coherent narrative.

Chapter Nine discusses whether the research questions have been addressed; to what extent the research aims have been met; and identifies areas of possible further research. Chapter Ten provides a critique of the research process as well as providing a conclusion for the thesis.

Chapter 2: Literature Review

2.1 Introduction

This research is concerned with alienation and ICT and uses three different settings to pursue this endeavour. The review is structured in a way that mirrors the development of the themes covered in this thesis. Thus it opens by referring to a selection of recent research contributions that signify the important relationship between alienation and ICT and then proceeds to examine a number of key texts, specifically those of Marx and Seeman, which consider the validity of theories of alienation as appropriate tools for investigating societal issues. The focus of the review then shifts to consider the research specifically concerned with the three settings selected and opens with reference to ICT professionals. This section includes a discussion about the nature of professionalism and is followed by a discussion centred on studies concerned with ICT and education, ethical issues, and age.

The discussion of existing research could have been structured in another format with consideration of relevant texts placed at the start of the Chapters concerned with each of the settings. As with any structure there are likely to be advantages and disadvantages. In this instance it is believed that, on balance, an overview at the start of the thesis is the best way to proceed since apart from highlighting and critiquing pertinent research, it helps define the parameters within which this doctoral research should be considered.

The relatively recent diffusion of information communication technology, both in terms of breadth and depth, has been paralleled by an expansion of research focused on the relationship between this technology and society. University departments, journals and journal articles, conferences, books and research projects, involving public and private funds, seek to investigate a wide range of issues where ICT both creates and is a

possible provider of solutions to significant problems. This has been particularly so since the development of web technology.

It is, therefore, beyond the scope of this review to provide a discussion of all relevant texts nor is it possible, because of a deficiency in language skills, to include non-English texts. In addition, since the focus here is primarily concerned with the interaction of ICT and society, it is necessary to reference appropriate non-ICT specific texts that are of a sociological nature; in particular works concerned with alienation, which is the theme of this study. Despite these caveats, what follows is an exploration of the literature linked to the research theme.

2.2 Alienation in ICT research

There is an extensive array of literature referencing the relationship between alienation and ICT of which more recent contributions include reference to: alienation at work among women IT workers (Adya 2008); business investment decisions (Abdullah and Kozar 1995); urban alienation (Foth 2005); international ecommerce (Sinkovics *et al* 2007); the impact of technology job structure and redundancy (Vickers and Parris 2007); education (Akudolu 2007, Moule 2003, Rovai and Wighting 2005); the alleviation of poverty (Slater and Tacchi 2004); business ethics (Smith *et al* 2004), public administration (Tummers *et al* 2009); and foster workers (Dodsworth *et al* 2013).

However, often in the literature linking ICT and alienation, the latter term is a vaguely defined shorthand descriptor for feelings of unease or dissatisfaction with the technology; a rigorous scientific application of the term is rarely used. A review of the literature covering a range of issues associated with ICT reveals that although the term alienation appears frequently, it often does so with no clear definition of what it means or how it can be used to explain people's interaction with the technology. This is in contrast to the use of alienation as a concept in other fields. Thus where, for example, alienation and work also appear as a prominent theme in the literature there is a

tendency to engage with theories of alienation. Kohn (1976) examined the relationship between occupational structure and alienation, a theme that has been echoed more recently by DeHart-Davis and Pandey (2005) in their research into rules, regulations and procedures and public employees. Ferguson and Lavalette (2004) have also used theories of alienation to argue for a refocusing of what they term “emancipatory social work” (Ferguson and Lavalette 2004: 297). Banai and Reisel (2007) have employed concepts of alienation to look at supportive leadership and job characteristics, DiPietro and Pizam (2008) examined causes of alienation among American fast food workers, and Fuchs and Sevignani (2013) have investigated alienation and digital labour. Work of this nature provides a rich source of information and perspectives when investigating alienation and ICT. However, the existent body of work is limited and the significance of using a theory of alienation needs to be proven in a range of different contexts and environments. To some degree this comment is pre-signifying the sentiments embodied in the critical realist approach which is discussed in Chapter 3.2.9. Thus, while most researchers concerned with society and ICT may not use terminologies more often associated with sociology, the issues they seek to investigate and address could benefit from the use of concepts such as alienation.

2.3 Alienation in academic endeavour: key moments

Having described a number of relevant texts, the review will now turn to look in greater detail at some of the key moments in the discussion about alienation and its importance in academic research. It will open by looking at the work of Seeman and move on to consider Marx’s contribution to the area.

2.3.1 Alienation: a sociological perspective

Martin *et al* (1974) noted that in 1969 the US National Institute of Mental Health had compiled a bibliography of 225 articles concerned with alienation. This was a period when there was a flourishing of research using concepts linked to alienation to provide

an overarching framework for understanding developments in society. Nisbet (1953 quoted in Seeman (1959)) notes that the hypothesis of alienation played a central role in social science research. Seeman (1959) also talks about the concept of alienation as being a “pervasive theme in the classics of sociology” with the concept having a “prominent place in contemporary work” (Seeman 1959: 784). Seeman’s paper in 1959 was a seminal work in that it attempted to “present an organized view of the uses that have been made of the concept; and to provide an approach that ties the historical interest in alienation to modern empirical effort” (Seeman 1959:783). In doing so, Seeman distils the work of various eminent academics such as Marx, Weber, Durkheim, Adorno and Wright Mills to provide six categories of alienation that he argues can be used to develop viable research activities and these are discussed in the following section.

2.3.2 Alienation: the Seeman perspective

The six categories Seeman presents are: powerlessness; meaninglessness; normlessness; isolation, self-estrangement; and cultural estrangement. The discussion below outlines in greater detail the characteristics of these categories and is followed by a critique of Seeman’s scheme. This structure has been chosen to allow for an adequate description of his notion of alienation thus providing the groundwork from which a critique can be developed.

2.3.3 Powerlessness

Powerlessness is described by Seeman as the belief held by a person that her “own behaviour cannot determine the occurrence of the outcomes or reinforcements” she wants (Seeman 1959: 784) and arises from the lack of control over socio-political events; in this aspect he does sail close to the views of Marx which will be discussed in the next section. However, Seeman cautions against simply applying notions of powerlessness to “more intimate need areas” such as love and affection (Seeman 1959: 785). However, it does seem that space exists for the idea of powerlessness to

be of some use in looking at activity that lies between the larger social and intimate environments. Work, community, citizen-state discourse, and learning are examples of spheres of activity in which people have both an immediate contact with others and interface with distant entities such as government departments or commercial and non-commercial organisations. These are also examples of activity which are increasingly mediated through the use of ICT. This notion of powerlessness has influenced a significant amount of research, recent examples of which are agency verses structure (Hitlin and Long 2009); education and healthcare (Mirowsky and Ross 2005), policy development (Tummers *et al* 2009), and consumer behaviour (Mady 2011).

2.3.4 Meaninglessness

Meaninglessness is the second aspect of alienation in Seeman's typology and refers to the "individual's sense of understanding the events in which he is engaged" or the lack of clarity as to what she is expected to believe (Seeman 1959: 786). As a consequence, a person cannot determine with confidence "the consequences of acting on given belief" (Seeman 1959: 786). An obvious instance of where this could apply is online privacy where research has shown that online users are increasingly concerned about the efficiency of online systems designed to secure private data and increasingly think that it is meaningless to believe the claims of organisations when say they will protect sensitive data (Furnell and Phippen 2012). The notion of meaninglessness has influenced studies of people at work and recent examples include research on nursing experience (Tummers and Den Dulk 2013).

2.3.5 Anomie

Seeman's third category of alienation draws upon Durkheim's notion of anomie which describes a situation where "social norms regulating individual conduct have broken down or are no longer effective as rules for behaviour" (Seeman 1959: 787). Durkheim argued that this arises in one of two circumstances: where social norms have been eroded and/or where individuals have become disconnected from a social conscience;

where individualism has been elevated to such a degree that people cease to consider or care about the concerns, needs and aspirations of others (Smith and Bohm 2008).

The driving force for the development of anomie is the inability of society to meet the aspirations or desires of individuals. Merton developed this theme to argue that the

inability of people to achieve culturally defined aspirations, such as the accumulation of material wealth, by legitimate socially structured means produced anomie or strain.....individuals develop adaptations to the strain they encounter. These adaptations include: conformity, innovation, ritualism, retreatism, and rebellion. Three of the adaptations (innovation, retreatism, and rebellion) tend to manifest in aberrant or criminal behaviour (Smith and Bohm 2008: 3).

Merton also considered that the development of anomie is a normal reaction to alienating circumstances created by the tension arising from the presence of aspirations and the absence of a mechanism through which these could be achieved. Smith and Bohn (2008) have succinctly summarised a range of texts addressing the issue of anomie.

2.3.6 Isolation

Isolation is the fourth aspect in Seeman's typology of alienation and it describes a situation where individuals "assign low reward value to goals or beliefs that are typically highly valued on the given society" (Seeman 1959: 789). Thus they develop a sense of separateness from society as a whole and may seek to bring about changes that reflect their own priorities and imperatives.

2.3.7 Self-estrangement

Seeman includes in his discussion on the different types of alienation reference to self-estrangement. This he characterises as "the loss of intrinsic meaning or pride in work and the failure to be fulfilled by the activities in which one is engaged." He also argues that "one way to state such a meaning is to see alienation as *the degree of dependence of the given behavior upon anticipated future rewards*, that is, upon rewards that lie outside of the activity itself" (Seeman 1959: 790). He also comments

that this aspect of alienation is perhaps one of the most problematic in terms of description and usage in analysis.

2.3.8 Cultural estrangement

In many of the texts referencing the work of Seeman, mention is made only of five categories; the sixth, cultural estrangement is often missing in the literature reviews in such research (Hancock and Sharp 2013). This can be partially explained because it was not included in his paper of 1959 and he added this element later in response to the political and social upheavals during the 1960s (Seeman 1972). As a result, researchers looking to Seeman can, by simply referring to his work of 1959, overlook this later addition to his typology of alienation. Nonetheless, cultural estrangement, “the individual’s rejection of or sense of removal from dominant social values” (Andrews *et al* 1991: 351) seeks to explain why individuals or groups of people are not prepared to accept and follow a set of commonly agreed standards of social practices. Having outlined the six categories that comprise Seeman’s framework of alienation, the discussion now shifts to develop a critique of his approach.

2.3.9 Seeman’s alienation: a critique

In moulding his typology, Seeman was seeking to make alienation more accessible than previous presentation of alienation such as that of Marx both as a concept describing various forms of behaviour and as a tool for investigating those behaviours. The strength of his approach is that it can help focus attention on specific types of behaviour, thereby facilitating research in these areas. However, as Seeman acknowledges, his scheme does have a number of problems and he refers in particular to difficulties associated with the notions of meaninglessness and self-estrangement. There are however more fundamental criticisms of his approach.

The view here is that in effect, Seeman has produced a list of categories describing the various conditions of alienation. The problem in constructing such a list is that there is a real need to consider the relationship between the component parts of that list including

the impact they may have on each other. As Rayce *et al* note, in Seeman's scheme “there is no theoretical structure between the six dimensions and presence of all six dimensions is not required” (Rayce *et al* 2009: 81).

While Seeman acknowledges that there may be inner connections between the versions of alienation, he considers three aspects, powerlessness, meaninglessness, and normlessness, to be operating independently of each other. In doing so he slices the notion of alienation vertically, thus severing the connectedness between the different strands. Yet he also confirms that the alternative versions could “be profitably applied in conjunction with one another in the analysis of a given state of affairs” (Seeman 1959: 789). This view could be taken a step further and it could be argued that analysis using a conjunction of the versions would help strengthen any attempt to comprehend and reveal the extent of alienation in a given situation. Research, such as that undertaken by Brooks *et al* (2008), provides supporting evidence for this criticism.

The second criticism that can be levelled at the Seeman approach is that he slices the notion of alienation horizontally by treating “alienation from the personal standpoint of the actor – that is, alienation is here taken from the social-psychological point of view” (Seeman 1959: 784). In doing so it encourages a perspective that sees the individual person or group as having a unique experience thus re-enforcing the notion that each instance of alienation can be considered as unique arising from quite specific circumstances. Thus the emphasis is on immediacy and, consequently, looking towards solutions that apply only to that specific circumstance.

As Shepard (1971), Seeman (1983), Rovai and Wighting (2005) and Case (2007) note, the approach adopted by Seeman is neither without its complexities nor without its critics and for a period, alienation as an acceptable concept of analysis was out of favour. However, the themes it encompasses have been persistently present, even if somewhat differently labelled, in research and the six dimensions of alienation he

outlined have had an enduring legacy and continue to influence study in a wide area of subject areas (Ross and Mirowsky 2013, Tummers 2013 and Buttram *et al* 2013).

Having looked at the approach of Seeman the discussion will now turn to consider the theory of alienation as proposed by Marx.

2.4 Alienation the Marxist perspective

2.4.1 Introduction

While the work of Seeman and others such as Merton was influential in the post war period, it was the discovery and subsequent publication in 1932 of an early text by Marx, the *Economic and Philosophical Manuscripts of 1844*, that provided much of the impetus for the interest in alienation theory in the first instance and it “rapidly became one of the most widely translated, circulated and discussed philosophical writings of the twentieth century” (Musto 2010: 94). It is the case that, as Costas and Fleming (2009) note, Marx’s formulations of alienation have not always been popular particularly so towards the end of the 20th century. In that respect they have followed the same trajectory as the general interest in alienation. However, as the awareness of alienation re-emerges, so does the interest in and the significance of Marx’s contribution to the discussion. Moreover, it can be argued, as do Costas and Fleming, that Marx’s tradition “yields important insights” in the exploration of alienation (Costas and Fleming 2009: 360) with, for example, Langman and Ryan (2009) drawing upon Marx’s presentation of alienation to explore contemporary global culture.

After an extensive review, comprising two lengthy articles in *Critical Sociology*, of research concerned with work and alienation, Archibald supports the importance of Marx’s view of alienation by making two important points: that “globalization and competition increased objective powerlessness and subjective alienation” (Archibald 2009b: 337) and that those seeking to study alienation from a Marxist perspective should be prepared to read widely and deeply on the subject. This

sentiment is echoed in the work of Fuchs (2013). Following Archibald's good advice, it therefore seems appropriate at this stage to review the key aspects of Marx's concept of alienation. This section traces a similar structure to that employed in the discussion on Seeman in that it opens with a description of Marx's theory of alienation and is followed by a critique of his perspective.

2.4.2 Species being

The essence of Marx's theory of alienation is connected to the loss of control over one's labour power (Cox 1998). Thus Marx gave the section concerned with alienation the title "Estranged Labour". For Marx, labour power is a commodity to be bought and sold in the market place like any other item. Furthermore, the worker has no control over the way the marketplace operates and so by extension has no real control over her labour. This means that the "object that labour produces, its product, stands opposed to it as *something alien*, as a power independent of the producer" (Marx 1970: 108). Erickson *et al* (2009) refer to this as the distance human beings experience from the things they make and the processes used to make them. This is an important building block in his theory of alienation since it is labour that expresses the essential humanity of the people and which makes humans different to other animals. As Fischer argues, the "species-being of animal is an eternal repetition, that of man is transformation, development and change" (Fischer 1996: 53).

2.4.3 The transformative power of labour

A further aspect of this perspective is that during the process of work, people also transform themselves. "Thus labour is a dynamic process through which the labourer shapes and moulds the world he lives in and stimulates himself to create and innovate" (Cox 1998: 2). In addition, this creative, innovative drive occurs within a social context as people enter into a range of relationships with others to achieve the outcomes of their labours. The emphasis here is on the collective endeavour needed to obtain those things required for us to live and survive. Thus for Marx, society "does not consist of

individuals, but expresses the sum of interrelations, the relations within which these individuals stand” (Marx 1973: 265). There are then three key aspects of Marx’s view of humanity: it is in our nature to work on and transform the world within which we live; in doing so we change ourselves; and, finally, we undertake these tasks within a collective environment.

2.4.4 The core aspects of alienation

Marx argues that capitalism, in which labour becomes a commodity, undermines creativity and intensifies alienation which takes four forms; these are outlined in the following discussion. It has been noted above that people become alienated from the products of their work in that they have, ultimately, and to varying degrees depending on the specific context, no control over what gets made; the decisions and priorities linked to the production of commodities are determined by the employer, not the employee. This can equally apply to both the service and industrial sectors. Some more recent researchers looking at ICT and white collar work, such as, Downing (2008), have referred to these workers as being so alienated from the product and processes of their work involving the use of computers that they could be described as “net slaves” (Downing 2008: 16).³

Thus for Marx:

the worker is related to the product of labour as to an alien object. For it is clear that, according to this premise, the more the worker exerts himself in his work, the more powerful the alien, objective world becomes which he brings into being over against himself, the poorer he and his inner world become, and the less they belong to him. ...The worker places his life in the object; but now it no longer belongs to him, but to the object. The

³ This may be an extreme description but recent research has found a striking similarity between management practices of slave owners and modern management techniques. For more on this discussion see <http://hbswk.hbs.edu/item/7182.html> and <https://archive.harvardbusiness.org/cla/web/pl/product.seam?c=28097&i=28099&cs=9780836848f84f739c7616ab61d4eca0> Notions of the technology as a tool of enslavement have also been discussed by Bynum and Rogerson (1996: 135), Braverman (1974) and Carter *et al* (2011).

greater his activity, therefore, the fewer objects the worker possesses. What the product of his labour is, he is not. Therefore, the greater this product, the less is he himself. The externalisation of the worker in his product means not only that his labour becomes an object, an external existence, but that it exists outside him, independently of him and alien to him, and begins to confront him as an autonomous power; that the life which he has bestowed on the object confronts him as hostile and alien.” (Marx 1970: 108).

Marx therefore argues that in the first instance, we are alienated, estranged, from the products of our labour. The alienation that a worker has from the products of her labours impacts on the relationships she has with world including herself.

The second element of alienation in Marx’s theory lies “not only in the result, but also in the *act of production*, within the *activity of production* itself” (Marx 1970: 109). It does so because of:

“the fact that labour is *external* to the worker – i.e., does not belong to his essential being; that he, therefore, does not confirm himself in his work, but denies himself, feels miserable and not happy, does not develop free mental and physical energy, but mortifies his flesh and ruins his mind. Hence, the worker feels himself only when he is not working; when he is working, he does not feel himself. He is at home when he is not working, and not at home when he is working....External labour, labour in which man alienates himself, is a labour of self-sacrifice, of mortification. Finally, the external character of labour for the worker is demonstrated by the fact that it belongs not to him but to another, and that in it he belongs not to himself but to another...the activity of the worker is not his own spontaneous activity. It belongs to another, it is a loss of his self” (Marx 1970: 111).

The third form of alienation outlined by Marx focuses on what he calls our species being. Labour is the life activity of the human species and he argues that “productive life is species-life. It is life-producing life. The whole character of a species, its species-character, resides in the nature of its activity, and free conscious activity constitutes the species-character of man” (Marx 1970: 113).

Human beings, unlike other animals, can reflect upon their own labour and are therefore able to see their species-character in the concrete objects they produce, in the processes they create, the relationships they develop, and in the world they have changed. Therefore, argues Marx, when people are denied control and use over the

product of their labour, when it becomes alienated from them, and appears as having power over them, they are in effect alienated from their own species-being; alienated from their own humanity. Drawing upon Lukács (1971), Costas and Fleming (2009) describe a condition where self-alienation arises because “self becomes an object to be exchanged since skill, expertise and experience are commodified as a productive resource” (Costas and Fleming 2009: 361). These attributes can only be embodied within a person. Weeks (2007) avers that the research of Mills (2002) and Hochschild (2003) provide a powerful argument in support of the view that “the critique of estranged labor is even more applicable to the conditions of immaterial labor than it ever was to industrial production. The alienation of immaterial laborers from the product and process of labor may be comparable to the experience of industrial work, but work that requires the application and adjustment of ‘personality’” intensifies the experience of alienation (Weeks 2007: 242).⁴

As a result, the purpose of work ceases to be the purpose of life and becomes instead merely a means of physical existence. “Estranged labour, therefore, turns Man’s *species-being*, both nature and his intellectual species-power, into a being alien to him and a *means* of his *individual existence*. It estranges man from his own body as well as external nature, from his spiritual essence, his *human existence*” (Marx 1970: 114).

This passage indicates that for Marx although alienation arises from the work experience which under capitalism is carried out in shops, offices and factories, alienation bursts beyond the confines of the workplace and touches upon the very essence of humanity in all spheres of human activity.

⁴ Brook (2009) provides a critical appraisal of Hochschild’s work in *The Managed Heart: Commercialization of Human Feeling* (2003) which includes a discussion on the reaction provoked by Hochschild’s research.

The final expression of alienation for Marx arises from the previous three and is related to the collective endeavour Marx identified as being critical to labour. In this respect, Marx argues that:

An immediate consequence of man's estrangement from the product of his labour, his life activity, his species-being, is the estrangement of man from man. When man confronts himself, he also confronts other men. What is true of man's relationship to his labour, to the product of his labour, and to himself, is also true of his relationship to other men, and to the labour and the object of the labour of other men (Marx 1970: 114).

As can be seen from this argument, for Marx every aspect of society is adversely affected by alienation. Further, as Worrell notes, few are able to avoid the logic of alienation and the consequential impoverishment and degradation of self (Worrell 2009: 432).

Marx uses this concept of alienation to identify a further aspect of relations between people. He argues that if the product of labour is not owned by the creator of the product, it is owned by someone else, a being that is alienated from the worker since it owns the outcome of alienated labour. This alienated being can only be another person.

Here Marx argues:

The alien being to whom labour and the product of labour belongs, in whose service labour is performed, and for whose enjoyment the product of labour is created, can be none other than man himself. If the product of labour does not belong to the worker, and if it confronts him as an alien power, this is only possible because it belongs to a man other than the worker. If his activity is a torment for him, it must provide pleasure and enjoyment for someone else. Not the gods, not nature, but only man himself can be this alien power over men (Marx 1970: 115).

Marx, in this passage, is emphasising his claim that alienation is a product of a given economic and social context and conditions social relationships because there are those who benefit materially from alienated labour. Morris (2009) in his discussion of these issues maintains that a further consequence of this aspect of alienation is that workers "encounter one another as competitive individuals and not as essentially cooperative beings" (Morris 2009: 144). As

Marx notes “The competition thus created between the labourers allows the capitalist to beat down the price of labour, whilst the falling price of labour allows him, on the other hand, to screw up still further the working-time (Marx 1970 (a): 549)

Marx maintains that as a result of alienation from labour, the product of labour and other people, people relate to their labour as “unfree activity” and that it is undertaken in the “service, under rule, coercion, and yoke of another” person. Furthermore, because labour is *forced labour* it is undertaken not to satisfy the needs of the worker but is “a mere *means* to satisfy needs outside itself” (Marx 1970: 111). Worrell develops this theme and argues that forced labour leads to an abstraction of the person, to “depersonalization, (an) irretrievable loss of time, (and a) permanent depletion of vitality” (Worrell 2009:432).

Marx was aware that the argument he advanced needed to be grounded in concrete circumstances and he spent considerable time developing themes initially outlined in Adam Smith’s *Wealth of Nations*, specifically those concerned with the division of labour (Smith, 1863). The division of labour was seen by Marx as playing a crucial part in the alienation of labour.⁵

As Smith and Bohm (2008) note, the Marxist notion of alienation is often considered as being focused on the relationship between the employer and employee. Frequently it has been seen as particularly relevant to the industrial worker (Blauner 1964). However as has been noted above, research, such as that of Mills, Hochschild, and Downing indicates that alienation is also experienced by employees working in the white-collar and service sectors. Moreover, as the *Philosophical and Economic Manuscripts*

⁵ This theme, the division of labour, is given extensive consideration by Marx in *Capital* Vol 1 Chapter 14.

indicate, Marx considered alienation an experience embracing the totality of human relations and thus touched upon areas beyond the immediate working environment. As Adler argues, the “subjective feelings of alienation are the inevitable counterpart of the workers’ objective alienation” (Adler 2009: 76). Adler is also identifying the dual contradictory nature of alienation; it is both an abstraction and a concrete condition.

As can be seen from the foregoing, Marx identified four distinct expressions of alienation: estrangement from the products of and the processes involved in our labour; alienation from ourselves; alienation from our species being; and alienation from others. It attempts to define and reveal man’s relationship to the wider social order. The strength of Marx’s presentation of alienation is its overarching theoretical framework consisting of interlocking elements. It is not a pick and mix approach since each of its component parts is intimately dependent upon others. As Mészáros argues, “one cannot grasp the “specific” without identifying its manifold interconnections with a given system of complex mediations” (Mészáros 1975: 256). Therefore it encourages an adoption of a total view of human activity. This focus on totality, mediation and immediacy, is in sharp contrast to the compartmentalised approach adopted by Seeman, as described earlier, and encourages a view of research that requires any event or moment to be considered as part of a total experience. Thus in any consideration of alienation, the wider context is as important as the specific instance; indeed, alienation in the Marxist sense, cannot be comprehended unless both the abstract and concrete conditions are appreciated for they both influence and impact on each other.

This leads onto a further point about Marx’s theory of alienation when he argues we are all alienated under capitalism. The section on estranged labour in the *Manuscripts* is very much focused on those who provide labour yet towards the end of that section he

talks about examining “the relation to the worker, to labor and its object” by those who have appropriated the labour. Here Marx says:

First it has to be noted that everything which appears in the worker as an *activity of alienation, of estrangement*, appears in the non-worker as a *state of alienation, of estrangement*.

Secondly, that the worker’s *real, practical attitude* in production and to the product (as a state of mind) appears in the non-worker who confronting him as a *theoretical attitude*.

Thirdly, the non-worker does everything against the worker which the worker does against himself; but he does not do against himself what he does against the worker (Marx 1970: 119)

Although, unfortunately, the *Manuscript* breaks off at this point, he does return to some of these ideas in the section headed the *Meaning of human requirements* when he speaks of

Estrangement is manifested not only in the fact that *my* means of life belong to *someone else*, that my desire is the inaccessible possession of *another*, but also in the fact that everything is itself something *different* from itself – that my activity is *something else* and that, finally (and this applies also to the capitalist), all is under [the sway] of *inhuman power* (Marx 1970: 156)

Talking directly about the owner of capital, Marx says

To be sure, the industrial capitalist also takes his pleasures. He does not by any means return to the unnatural simplicity of need; but his pleasure is only a side-issue – recreation – something subordinated to production; at the same time it is a *calculated* and, therefore, itself an *economical* pleasure. For he debits it to his capital’s expense account and what is squandered on his pleasure must therefore amount to no more than will be replaced with profit through the reproduction of capital. Pleasure is therefore subsumed under capital, and the pleasure-taking individual under the capital-accumulating individual, whilst formerly the contrary was the case (Marx 1970: 157)

In the following section, *Power of money in bourgeois society* Marx gives a caustic criticism of the power of money:

In the light of this characteristic alone, money is thus the general distorting of *individualities* which turns them into their opposite and confers contradictory attributes upon their attributes.

Money, then, appears as this *distorting* power both against the individual and against the bonds of society, etc., which claim to be *entities* in themselves. It transforms fidelity into infidelity, love into hate, hate into love,

virtue into vice, vice into virtue, servant into master, master into servant, idiocy into intelligence, and intelligence into idiocy.

Since money, as the existing and active concept of value, confounds and confuses all things, it is the general *confounding* and *confusing* of all things – the world upside-down – the confounding and confusing of all natural and human qualities.

He who can buy bravery is brave, though he be a coward. As money is not exchanged for any one specific quality, for any one specific thing, or for any particular human essential power, but for the entire objective world of man and nature, from the standpoint of its possessor it therefore serves to exchange every quality for every other, even contradictory, quality and object: it is the fraternization of impossibilities. It makes contradictions embrace (Marx 1970: 169)

In discussing these issues Marx is arguing that all relationships under capitalism are alienated but that he is also aware that they may not always take the same form. The key point to take from this is that all professionals can be considered as experiencing alienation. As will be argued in later in Chapters Five to Seven of this thesis, the professionals that participated in this research experience alienation in a common manner.

That there is a growing, if at the moment limited, number of current researchers who draw upon “Marx’s pioneering insights” to explore alienation across a range of areas is indicative of the explanatory power of his analysis (Archibald 2009a: 152), (Wolff 2012).

2.4.5 Marx’s alienation: a critique

Most research seeking to investigate alienation tends to either ignore or bypass the contribution made by Marx and favours the perspective advocated by scholars such as Seeman or draws upon grounded theory to provide analysis. While there are a number of explanations for this, the confines of this thesis allow for an outline of just five of these reasons and this forms the basis of the next part of this discussion. The first relates to Marx’s view of human nature which is not without its critics. Costas and Fleming (2009) provide a brief overview of those who have sought to challenge Marx in this area and seek to sidestep problematic issues by attempting to develop “a discursive and non-essentialist approach” to alienation (Costas and Fleming 2009: 362).

The second reason relates to the emergence of postmodernist perspectives, once so dominant in certain intellectual quarters, which criticised the notion of alienation itself since postmodernism denied the existence of the subject.

The third reason arose from the criticism of alienation from within Marxism itself with writers such as Althusser referring to Marx's discussion of alienation as residing in his immature period and arguing that Marx dropped the notion of alienation from his later work (Althusser 2005). This was a significant intervention within Marxism since it challenged the view that Marx continued to adhere to this approach in his later work as it implies a humanism which some scholars argued cannot sit with Marx's materialist perspective. This is often referred to as the difference between the early and late Marx. A convincing criticism of Althusser's approach can be found in Thompson (1978), Callinicos (1983) Harman (1983) and Geras (1987). While it is not considered appropriate to enter into this debate for this research, a useful overview can be found in Fuchs and Sevignani (2013). The criticisms articulated by Althusser and his supporters were particularly important, for they addressed an audience that would have favoured a qualitative approach to research and had a significant influence over researchers in Europe.

The fourth reason for the neglect of Marx's theory of alienation is linked to a perceived weakness because his approach does not sit comfortably with attempts to investigate and reveal how alienation is expressed in concrete forms. Seeman's salami approach sought to resolve this problem and to fuse the Marxist approach with other views of alienation in order to make "alienation more amenable to sharp empirical statement" (Seeman 1959: 783). Thus research focusing on only one or, at most, two aspects of alienation offers a less troublesome route to follow.

The final reason for the lack of interest in Marx's notion of alienation arises from its explicit political consequences. If it can be shown that his scheme offers much by way

of research analysis and indeed reveals how and why alienation is at work, it immediately asks questions about control and power over, for example, ICT. If his theory is applicable, it demands action of a political nature and raises serious concerns about the implications of realising the full potential of ICT under the prevailing social, political and economic structures. As a result, studies using a Marxist approach can be subject to trenchant criticism as exemplified by the reaction to Hochschild's (2003) work on immaterial labour (Brook 2009).

Despite the criticisms levelled at Marx's theory of alienation and his other economic, political and social analyses, his ideas continue to have an important place in the fabric of academic research and teaching. This view is evidenced firstly from the coverage of his ideas in courses ranging from Yale's *Foundations of Modern Social Thought* to the University of Sussex's *MA in Social and Political Thought*. Secondly, as has been mentioned previously, there is a growing interest in his ideas, including his view of alienation, by researchers seeking to provide explanations for a range of issues across an array of disciplines.

Much of the criticism directed at Marx's notion of alienation is developed at a theoretical level; this thesis is concerned with putting the notion under test.

Notwithstanding the reasons contributing to the lack of attention Marx's theory of alienation has received, as has been mentioned above, his ideas are developing an increasing purchase with those wishing to investigate social phenomena. As such it appears to have an enduring and valuable legacy.

Two of significant interventions in this area of study are particularly worth reporting.

The first is the oft cited research by Blauner in his book "*Alienation and Freedom*", first published in 1964 and subsequently running into several editions; a text that has been cited in over 2800 research publications. (Google Scholar: 2014). Blauner's book seeks to examine alienation from a Marxist perspective by focusing on the operational aspect

of alienation rather than engaging in a philosophical debate on the topic. Blauner seems impatient with those who use “minimal empirical materials” to support their discussions on alienation (Blauner 1964: 4). He set himself the task of testing the “theoretical assumptions” of alienation “through consideration of empirical evidence” (Blauner 1964: 4) and to undertake this project by looking at different workplace settings. He also saw this activity as being placed within an overarching framework inspired by the Marxist theory of alienation.

However, while his book continues to have a considerable influence on research concerned with alienation, his approach has also been subject to significant criticism, which Edgell (2012) argues can be located at the methodological, conceptual and interpretive levels. In terms of method for a major part of his study, Blauner relied on data generated “by a job attitude survey carried out by Elmo Roper for *Fortune* magazine and in 1947” (Blauner 1964: 11). The Roper research was based on a questionnaire with the questions designed to investigate job satisfaction. In effect, Blauner was re-visiting the results of a job satisfaction survey that had been undertaken some 17 years before the publication of his research. Blauner does acknowledge that the data is “somewhat old” (Blauner 1964: 13). Further data for his study was obtained from a questionnaire survey conducted by another researcher investigating the “effects of job redesign” (Blauner 1964: 13). In short, the major part of the data Blauner used for his investigation was derived from research concerned with job satisfaction and job redesign rather than data arising from research directly informed by Marx’s notion of alienation. This problems with data collection persisted into his contribution to data which derived from 21 interviews of chemical workers with critics of Blauner arguing that his interviews do not fit neatly with the other data used in the study (Edgell 2012). Apart from the issues associated with data collection, there are further, perhaps more fundamental, problems with Blauner’s investigation arising from

his approach to the analysis of the data. He explicitly draws upon the first five of Seeman's six categories of alienation to undertake his investigation without acknowledging or discussing the problems inherent in the Seeman approach. This is highly problematic for an investigation that claims to examine alienation from a Marxist perspective in that by uncritically using Seeman's categories, he imports into his research all the conflicts and contradictions associated with Seeman's method as highlighted above.

As a result, Blauner makes the same fundamental errors that beset many studies seeking to investigate alienation from a non-Marxist perspective; namely that alienation arises from specific contexts and conditions; that it can be only investigated within those contexts and conditions; and that solutions to alienation can be located within those contexts and conditions. A further criticism of Blauner is that he appears to accept the notion of technological determinism, described by Wendling (2011) as "an attitude that misrecognizes changes in human labor and social life and attributes properties of those changes to machines themselves rather than the mode of production that shapes them (Wendling 2011: 204). In Blauner's case this appears when he argues that changes in technology can either increase or diminish alienation (Blauner 1964: 182). Further, in a section called "Solutions to alienation at work", he argues that a "crash program of research in industrial design and job analysis is needed orientated to the goals of worker freedom and dignity..." (Blauner 1964: 185) and for "policy recommendations aimed at reducing...alienation" (Blauner: 1964: 186). In addition, he argues that a "strong labor union would not only reduce powerlessness and improve working conditions of textile workers; it would also be an important force towards the modernization of this...industry" (Blauner 1964: 186).

While these demands of themselves may be admirable, by framing the solutions to alienation in this way, Blauner is clearly not at one with Marx in identifying the nature

of commodity production, and hence capitalism as a system, as the root of the problem of alienation. Like many who engage in research into alienation, he focuses on specific partial solutions. Further he reduces alienation as arising from the perceptions of those involved in his study. Thus “by focusing on the subjective experience of alienation, Blauner has trivialized Marx’s concept of alienation in the sense that he has reduced it to a study of job satisfaction” (Edgell 2012: 42).

It is also noticeable that in his work, Blauner does not engage, even in passing, with the later texts of Marx to consider what impact these may have had on both Marx’s theory of alienation and consequently his (Blauner’s) research. Nor did he draw upon the [Manuscripts](#) to inform the categories he wishes to examine. Because of the fundamental problems associated with the use of Seeman’s categories; the reliance on data generated by job satisfaction research; and the apparent adherence to technological determinism, Blauner’s work on alienation, while placing alienation in an historical context, does not offer a way forward for those wishing to research alienation and technology from the classical Marxist perspective. One could take this further and argue that compared, say, to Mills’ discussion of alienation in his consideration of white collar workers (Mills 2002), Blauner’s approach is a step backward in terms of its Marxist inspiration and content. These criticisms of Blauner’s work mean that there is very little in the field that attempts to study alienation from a Marxist perspective as it applies to the workplace and none that embraces ICT professionals, academics and end-users within its research parameters.

If Blauner presents a number of problems for a researcher in this field, a more recent text in area provides a number of insights that can be usefully employed by a researcher in this area. Wendling (2011) seeks to examine the relationship between technology and alienation from a Marxist perspective. However, whereas Blauner was focused on the relevance of alienation in explaining attitudes to work in specific

instances, Wendling offers “ a conceptual history of alienation as the concept developed in modern thought, was refined in Marx’s work and was handed on to the tradition that followed him” (Wendling 2011: 1). Thus her discussion includes the relevance of Aristotle, Rousseau, Locke and Adam Smith as well as Hegel to the development of Marx’s theory of alienation and its relationship to technology. Further, she seeks to establish the lineage between Marx’s early conception of alienation and his use of the idea in his later texts such as *Capital* and his various notebooks.

In taking this approach, Wendling engages in a number of complex arguments relating to, *inter alia*, commodity fetishism; and machine fetishism. She also notes that Marx developed “the distinction between “objectification” (as the ontological interface between human beings and nature) and “alienation” (as the form this takes in capitalist labor)” (Wendling 2011: 34). A further category outlined by Wendling is technological alienation (mentioned above) which is considered directly relevant to the study at hand. Wendling also notes the significance of formal and real subsumption on alienation within capitalism. The move from formal to real subsumption describes a transformation, identified by Marx, where the process of production (the ownership of tools, processes of production and the like) moves from the control of the worker to be fully controlled by capital thus deepening and broadening the division of labour. (Wendling 2011: 32). As a result, it is capital itself that shapes the production process. In this process, Marx talks of a development where “formal subjection is replaced by real subjection of labour to capital” (Marx 1970: 510) (This references back to the second aspect of alienation outlined by Marx in the 1844 *Manuscripts*). The transformation from the formal to the real subjection is a process and as such, Marx argues, involves changes over time and space and can move at different velocities depending upon the specific circumstances; such conditions he refers to as “intermediate”. (Marx 1970: 340) Wendling adds that in a condition of real subsumption

“the failure of receiving a just equivalent for one’s labor and the concentrations of private property and tools in a few hands are accomplished facts” (Wendling 2011: 33) meaning that inequality and the concentration of control of the production process are an integral part of the capitalist system. This belief that they are accepted “facts” has implications for alienated labour in that labour under the condition of real subsumption, capitalist production appears as the “natural form of social production” (Marx 1970: 515). This has implications for any study seeking to investigate alienation in specific conditions. It implies that if the capitalist form of labour is considered natural, it can appear to the participants of such studies, both those undertaking the research and those being researched, that alienation, rather than being inherent in the capitalist system, is an aberration, an unusual state, that can be, indeed needs to be, alleviated or eradicated if things are to revert to normality. This does, in part, take us back to the discussion concerning the problems associated with Seeman’s and Blauner’s approach to alienation.

Wendling also touches upon a two other issues pertinent to the research covered in this thesis; the relationship between labour and labour power, and the difference between concrete and abstract labour. For Marx, labour is the physical act of work and as such is present in all forms of society. Labour power is the capacity to work and under capitalism exists as a commodity. Further, the difference between use value and exchange value of commodities impacts upon different kinds of labour. As Boucher (2014) notes:

Concrete labour is the expenditure of human effort by a specific individual in the production of a determinate item with a socially defined use value, whereas *abstract labour* is the socially necessary time required by an average individual which determines the exchange value of the item (Boucher 2014: 26)

Wendling (2011) argues that because concrete labour produces a use value, it can contribute to the objectification of labour, a condition as has been noted above which

does not necessarily lead to alienated labour. However, abstract labour, being concerned solely with exchange value results in an alienated state. Further, capitalist society “celebrates abstract labor while degrading concrete labor” (Wendling 2011: 53). However, while the distinction between concrete and abstract labour is useful for comprehending how labour can be understood, in reality, under capitalism, both concrete labour and abstract labour occur simultaneously. (Blackledge 2012).

The discussion covering Blauner’s research and Wendling’s conceptual engagement with Marx and alienation helps position the research and analysis contained within this thesis. It aims to rectify a number of the problems associated with Blauner’s work by embracing the interrogatory approach preferred by Wendling and applying it to a range of contrasting settings. As such it offers a unique contribution to the current discussions about the relevance of Marx’s theory of alienation.

This thesis is concerned with examining the validity of Marx’s theory of alienation and to do so focuses tightly on the four aspects of alienation Marx outlined in the *Manuscripts*. As a result, neither time nor space allow for a sustained engagement with a number of debates, such as those falling with the autonomist and Open Marxist movements, concerning how workers can confront and, if possible, overcome the alienation they experience. Such an engagement would presuppose the outcomes of this research thesis itself and would, therefore, require a different research project other than that covered by this thesis. Nonetheless, it is considered appropriate to include reference to the debates surrounding the autonomist and Open Marxist perspectives since these have a significant influence on discussions about alienation and ICT. It is appreciated that the movements themselves are wide ranging, constantly shifting and being elaborated and refined but the confines of this thesis allow only for the referencing of a limited number of key texts that fall within these movements. Thus

the following discussion revolves around the contributions of Hardt and Negri, and John Holloway.

In their book, *Empire* (2000), which was an influential text in the development of the autonomist perspective and that of the wider anti-capitalist movement emerging at that time, Hardt and Negri start from the acceptance that work in contemporary capitalism is dominated by immaterial labour with jobs being “for the most part...highly mobile and involve flexible skills. More important, they are characterised in general by the central role played by knowledge, information and communication” (Hardt and Negri 2000: 285). For Hardt and Negri, commodity production has become informationalised in that information and communication play a “fundamental role in the production process” (Hardt and Negri 2000: 285). Hardt and Negri argue that there are a number of consequences of immaterial labour which include: the homogenisation of the work process; the emergence of the computer as a universal tool; labour is a service which does not result in any material or durable commodity products; and thus production tends towards things that are “intangible, a feeling of ease, well-being, satisfaction, excitement and passion” (Hardt and Negri 2000: 286). Drawing on these developments, Hardt and Negri (2000) argue that immaterial labour takes three forms: labour within industrial production has become informationalised; labour is of an analytical kind and which works on symbolic tasks; and finally, immaterial labour of affect.

A further feature of immaterial labour is that “*cooperation is completely immanent to the labouring activity itself*” (Hardt and Negri 2000: 294) (Italics in the original text) The political and social consequences of these developments mean that by engaging in immaterial labour “producing means constructing cooperation and communicative personalities” and that as a result “we participate in production in a more radical and profound commonality than has ever before been experienced in the history of capitalism” (Hardt and Negri 2000: 301-302). In developing their argument, they say

that “productivity, wealth, and the creation of social surpluses take the form of cooperative interactivity through linguistic, communicational, and affective networks. In the expression of its own creative energies, immaterial labour thus seems to provide the potential for a kind of spontaneous and elementary communism.” (Negri and Hardt 2001: 294). Flowing from this analysis, Hardt and Negri talk about the role of the commons. Here they argue that their analysis of immaterial labour creates the possibility of the “commons” which is the “incarnation, the production and liberation of the multitude” (Hardt and Negri 2000: 303).

The ideas outlined by Hardt and Negri in *Empire* remained crucial to their subsequent book *Multitude* (2004) although in this later text the analysis is in a “rather more cautious and qualified form than before” (Wright 2005: 37). For example, in talking about alienation and immaterial labour, they argue that “the hegemony of immaterial labor, then, does not make all work pleasant, nor does it lessen the hierarchy and command in the workplace or the polarization of the labor market” (Hardt and Negri 2004: 111). The reference to alienation is not really developed as it relates to Marx’s view of the condition except to say that it was not helpful when applied to factory workers. The approach articulated by Hardt and Negri regarding labour has implications for research focused on responses to alienation as the potential for “spontaneous and elementary communism” and the development of the commons imply the possibility of overcoming alienation while capitalism continues.

The work of John Holloway is also seen as pivotal in the informing the debates within, and the direction of, autonomism. In his books, *Changing the world without taking power* (2002) and *Crack Capitalism* (2010), as well as his many other articles and talks, he criticises orthodox Marxism as starting “with capital or domination” whereas the autonomist tradition insists “on starting from below, from the struggle of the working class, or more broadly, anti-capitalist struggle” (Holloway 2011). In discussing

alienation, Holloway maintains that “it is possible to emancipate human activity from alienated labor by opening up cracks where one is able to do things differently, to do something that seems useful, necessary, and worthwhile to us” (Holloway 2014).

Further he argues that “the rejection of alienated and alienating labor entails, at the same time, a critique of the institutional and organizational structures, and the mindset that springs from it” (Holloway 2104). Unlike Hardt and Negri, Holloway makes extensive reference to alienation in his works. Thus in *Changing the world without taking power* he says that the “concept of alienation, or fetishism, in other words, implies its opposite: not as essential non-alienated 'home' deep in our hearts, but as resistance, refusal, rejection of alienation in our daily practice” (Holloway 2002: 137).

Holloway places the scream at the heart of his resistance to alienation for he argues that the scream is “not a scream in the abstract. It is a scream against: a scream against oppression, against exploitation, against dehumanisation” (Holloway 2002: 150). More recently, Holloway has spoken of the possibilities of overcoming alienation within capitalism when he records that “Reclaim the Streets realized this beautifully, recognizing that if what the RTS activists opposed was privatization, alienation, and isolation, a street party was not just a protest of these conditions but a temporary triumph over them” (Solnit 2005: 23 cited in Holloway 2010: 45). In making these arguments, Holloway is revisiting the themes he covered in 1992 with his contribution to the volumes of *Open Marxism* (Holloway 1992).

The perspectives presented by Hardt and Negri, and Holloway differ in a number of respects, for example in their attitudes towards taking state power, yet they both seem to articulate a view that it is possible to alleviate alienation under capitalism. The arguments they present have been critiqued from a number of aspects such as such as: immaterial labour (Camfield 2007, Fuchs and Sandoval, 2014, Harvey 2009); the commons (Harvey 2014, Kostakis and Stavroulakis 2013, Mudu 2009); the impact on

ICT in the labour process (Federici 2008); and crack capitalism and alienation (Blackledge 2012).

However, as has been mentioned above, the nature of this research project means that it has not been possible to engage further with the perspectives advanced by Hardt and Negri, and Holloway. That being said, these concerns are re-visited in Chapter Ten which looks at the possibility of future research in this area.

Engaging with the literature up to this point confirms there are two dominant traditions which investigate the notion of alienation and that one of these perspectives that advanced by Seeman, has been the method of choice for most researchers. However, the review has also identified weaknesses in this approach and consequently has fed into and confirmed the decision to employ Marx's theory of alienation for this study as described in research questions 1 and 2. The research covered by this thesis has been driven by the categories and relationships located within Marx's *Manuscripts* and supported by the references to alienation within his later works, most notably the *Grundrisse*. As was outlined in the research questions, this study does not revolve around a conceptual assessment of Marx's theory of alienation. Neither is the purpose of this study to justify or otherwise the lineage and development of Marx's theory of alienation as it relates to his later works. As was intimated in the literature review, a number of scholars have engaged with this aspect of Marx's theory alienation and have provided significant evidence to show the connection between the ideas contained in the *Manuscripts* and Marx's later output. As a result, the argument concerned with the relationship between the early and late Marx is no longer one of significant importance. Rather this study has sought to test the validity of his approach in helping to comprehend alienation as experienced under capitalism. It was felt that a tight focus on the formulation of alienation as outlined in the *Manuscripts* and the *Grundrisse* was the most effective way to proceed with this task. A further reason to work with Marx's

theory of alienation was to provide a clear break with dominant approaches to researching this theme such as those associated with Blauner and Seeman which, as has been argued above in the literature review, tend to de-link the categories they seek to examine.

The approach adopted here researches the core aspects of alienation as described by Marx in the *Manuscripts* and the *Grundrisse* and in doing so appreciates and tries to incorporate the dynamic developing and changing manifestation of the condition. The third reason for using the *Manuscripts* as a focus for the research is simply that this is the starting point for in the journey of many other researchers interested in Marx's formulation of alienation. However, while it may be a starting point, as the literature review has indicated many researchers lapse in the Seeman/Blauner perspective while continuing to investigate alienation. The focus on the *Manuscripts* and the *Grundrisse* is part of the attempt to show that it is feasible to research alienation using Marx's categories and relationships contained within these works. Without pre-figuring the conclusion to this thesis, the evidence gathered, analysed, and presented in this study indicate the significant potential that exists by using Marx's theory of alienation as formulated in the *Manuscripts* and the *Grundrisse*.

Having looked at two of the main contributors to the discussion concerning alienation in general, and attempted to provide a critique of each, the review will now go on to focus in detail on the three settings that form the centre of this research, namely, ICT professionals, scholars, and mature users of ICT linked to ICT training. In each case the discussion will take the form of considering to what extent theories of alienation have been used to investigate players in the three areas and will also develop the general context for each setting. The following discussion opens by looking at issues related to ICT professionals. It then proceeds to review the research linking academics

to alienation and includes a reference to ethics. The discussion ends with a review of age, alienation and ICT and links this to ICT training.

2.5 ICT professionals

2.5.1 Introduction

This section opens by considering what could denote an ICT professional. This is followed by an outline of the dynamically changing context within which this group works, and this part of the review concludes by looking at the research focused on this particular profession. The purpose of this part of the review is to help establish the framework for Chapter Five.

2.5.2 Professionalism

There is no common, acceptable definition for the 15 million or so people who work as ICT professionals in the OECD countries or for the millions of others who work elsewhere (OECD 2012) and it would therefore seem appropriate that any discussion concerned with what denotes an ICT professional should start with the general notion of the core characteristics of professionalism. Shin argues that “Professionalism can be broadly defined as professional knowledge/qualifications, proven high standards, confidence, attitudes and values” that will influence practice (Shin 2012: 135). To this, Cruess *et al* (2000) add reference to a social contract between society and the professional and the possible vocational nature of the work encompassing an adherence to notions of morality and virtue (Cruess, *et al* 2000). In their discussion concerning the UK building industry, Bordass and Leaman list 10 characteristics that go to make the professional including stewardship of the general community and an independent attitude to problems (Bordass and Leaman 2013). Researching professionalism in the UK police, Fyfe emphasises the need to contextualise professionalism to reveal how it can be compromised by circumstance (Fyfe 2013).

All of the aforementioned research is concerned with enhancing the professionalism within a given sector such as construction or policing and each of the contributions

cited above indicate a crisis of and challenges to professionalism across a wide spectrum of occupations.

Looking at consultancy work, Furusten (2013) tracks the emergence of commercialised professionalism which is regarded as the new professionalism. Research also indicates that there is a tension between professionalism and commercialism (Carrington *et al* 2013) as well a trend away from more traditional forms of professionalism towards the managerial professional model (Thursfield 2012).

Turning now to focus more tightly on ICT professionals, Székely (2011) in his study of the attitude of IT professionals towards surveillance asks what defines this population group. There are issues associated with attempting to determine whether any group of IT professionals can be said to be representative of the total social group in this area. However, these problems can be alleviated by focusing on a set of common characteristics that can provide a working model which can relate, resonate if you will, to the group as a whole. (The issue of resonance is discussed in Chapter Four).

Székely's response to these issues is to quote a possible definition from Wikipedia which contains reference to those who work on computer networks, information databases, networking, engineering computer hardware and software as well as the management of IT systems (Wikipedia 2013). It is not normally good practice to cite Wikipedia but in this instance it does echoe the views of the BCS Chartered Institute for IT which considers that membership can be obtained by someone who has five years relevant experience in the industry. Here, relevant is defined as being "professionally engaged in any aspect of building, maintenance, management or operation of IT or in teaching or training (at degree level) related to the knowledge and skills appropriate to that activity" (BCSCIIT 2013). Other IT associations widen the notion of professionalism to encompass non-technical attributes. So, for example, Canada's Association of Computer Professionals (CIPS) moves beyond a reference to technical

skills and describes an IT professional as someone working in IT but who also has a commitment to an ethical code of practice (CIPS 2013). There is one other point worthy of note about the notion of professionalism. It approaches those working in ICT as individuals rather than as a collective body and thus seeks to place the responsibility for professional behaviour on the one rather than the many working in a shared community. Having looked at issues linked to professionalism, the review will now turn to look at the literature concerned with researching ICT professionals.

2.5.3 Current Research on ICT professionals

Relatively little research has been undertaken in the area of ICT professionals and job engagement and where the ICT professionals form the focus of study (Tong *et al* 2013). Even when these studies are undertaken they are often focused on issues such as those seeking to resolve problems associated with, for example, employment turnover of ICT professional employees or how to control their activity and as such see managers as their audience (Rasmussen and Johanse 2005, Ramos and Joia 2013). It is surprising, given that so much has been written about the importance of the technology to so many aspects of human endeavour, that only a limited amount of research has made the creators of the technologies the subject of study. Pittenger *et al* put it more starkly when researching ICT professionals and engagement; they note that this area “has been largely ignored as a focus of scholarly research” (Pittenger *et al* 2012). Where such research has been undertaken it frequently takes the form of a quantitative nature using online questionnaires (Shaw 2003) or a mixture of quantitative or qualitative methods (Székely 2011). The aspirations, perspectives and thoughts of the ICT professionals are reduced to quantitative analysis with evidence taking the form of levels of significance, standard deviation statistics and model coefficients and conclusions focusing on “snapshot statistical relationships” (Tong *et al* 2013: 29).

One of the quantitative studies undertaken in this area does recognise the problems associated with this approach and “recommends that qualitative based studies and semi-structured interviews with focus IT professionals groups be conducted to examine the causal relationship between job satisfaction, age, and perhaps other demographic factors” (Ghazzawi 2011: 48). There are a few exceptions to this trend, such as the series of semi-structured interviews with ICT professionals based in Norway (Rasmussen and Johanse 2005). However, the focus of their study was to show that by giving professionals some sense of autonomy, it was possible to get them to work long hours, often with unpaid overtime.

There are studies that take as their theme the lived experience of ICT professionals and do use in-depth semi-structured interviews as part of the data collection process (Roos 2013) but these are very rare. A significant exception to this is the research undertaken by Xiang into the practice of “body shopping” where he carried out extensive interviews with IT professionals in India (Xiang 2007). Interestingly, where the focus is on the experience of women working in ICT, the research methodology tends to include extensive use of in-depth interviews (Clerc and Kels 2013).

The subjects selected for this part of the research were not filtered by reference to any formal adherence to codes of ethics or conduct; the emphasis was on their technical capabilities and responsibilities. Proceeding on this basis, the group of IT professionals who participated in the research can be said to reflect those attributes that characterise the view of what it means to be a professional.

This part of the review has described the limited amount of research that has been undertaken with the experience of, rather than the role of, the ICT professional as its primary focus. As such it confirms the choice of this group for one of the settings for this study, thereby supporting the development of the research questions as they focus on this setting.

Having looked at the literature, such as it is, concerning alienation and the ICT professional, the thesis will now consider the research linking ICT and education to provide a framework for the second of the settings identified in research question 1.

2.6 Alienation theory in education

In contrast to that associated with ICT professionals, there is a wealth of research seeking to investigate the relationship between ICT and the learning environment. This will be reviewed later but first the discussion will look at the research on alienation and education as well as the general conditions within which scholars undertake their labours.

Mann (2001) uses alienation theory to provide an explanation for and a possible solution to the lack of active engagement by learners in higher education. Drawing upon the work of others in the field such as Marton and Saaljo (1976) and Prosser and Trigwell (1999), Mann writes of the difficulties associated with surface or strategic learning. The former is “characterised by a focus on rote learning, memorisation and reproduction, a lack of reflection and a pre-occupation with completing the task” (Mann 2001: 7). Strategic learning is driven by simply getting the task done and is determined by “assessment requirement and lecturer expectations and a careful management of time and effort, with the aim of achieving high grades” (Mann 2001:7).

In discussing alienation in education, Mann notes two possible approaches to using the concept. The first argues that alienation is an intrinsic part of human existence; an “inescapable part of the human condition” (Mann 2001: 8); the second locates alienation in specific concrete conditions. The latter approach is the one argued by Marx and is implicit in Seeman’s perspective on the topic. In her discussion, Mann identifies six possible conditions within which learners’ alienation may arise. The first relates to the tendency within higher education to focus on external needs, primarily the

labour market, Here notions such as utility, transferable skills, and fit for purpose, drive the teaching agenda. All of these imperatives are familiar to those working or studying in higher education and they dominate subject choice, subject coverage, delivery and assessment. In short, study is generally determined by external need which has a profound impact on student choice.

This, argues Mann, results in the student being estranged from the possibility of a meaningful personal purpose in engaging in higher education. To emphasize this theme, Mann cites Barnett who comments:

“To reduce human action to a constellation of terms such as ‘performance’, ‘competence’, ‘doing’ and ‘skill’ is not just to resort to a hopelessly crude language with which to describe serious human endeavours. In the end, it is to obliterate the humanness in human action. It is to deprive human being of *human* being” (Barnett 1994: 178 cited in Mann).

The second and third contexts Mann identifies as engendering alienation are related first to the student entering a “pre-existing discourse” determined and controlled by entrenched, established roles and “more powerful others” (Mann 2001:10). Secondly, when the student encounters language, customs, and systems alien to her, she is an outsider. Here Mann uses the metaphor of colonisation to illustrate the argument.

These two pressures create a tension within the student between the creative urge to explore the world and the repression of this creativity arising from the need to conform to the demands of higher education. (The impact on alienation on the creativity of scholars is discussed in Chapter Six.) As Mann argues:

The demands of learning the language of rational, abstracting, academic discourse and processes may require the student to repress their being as non-rational, creative, unconscious and desiring selves, the very selves which they may need for engaging in learning (Mann 2001: 12).

These pressures led to Mann’s fourth condition of alienation: the denial/repression of student creativity by the knowledgeable other. Compliance and acquiescence to the institution, lecturers, and course demands dominate the student’s existence. As a

consequence the student is estranged from her “own creativity and autonomous self as a learner” (Mann 2001:13).

Mann’s fifth description of alienation draws heavily on Marx in that she likens the student’s loss of ownership of the learning process to that of labour. In the context of higher education, the product, i.e.the essay, report, exam paper or PhD thesis, becomes part of the system of exchange. Hence the relationship between the student and the institution is mediated through assessment outcomes, thereby re-enforcing the power relationships.

Here one could add that students have no right to challenge academic judgements about the quality of their work. Processes do exist that allow students to question what might be termed technical issues, such as marks being entered or added incorrectly, but decisions about the academic worth of their endeavours rest solely with others. Rather than liberating the student and propelling her into greater discoveries about herself and the world in which she lives, the product of her work simply re-enforces the powerlessness she feels and replaces the idea of study with achievement determined and judged by pre-set norms. As will be shown later in the thesis (Chapter 6.9), these pressures are also very much at work on the scholars engaged in researching the ethical and societal implications of ICT.

Mann refers to Marx’s notion of species being to argue that the student’s drive to engage in creative study is undermined by the very learning process itself.

"From this perspective the learner’s estrangement arises out of the unequal distribution of power within the teaching and learning relationship, and the ownership by lecturers or the institution of the means for, and the values given to, work produced through assessment"(Mann 2001: 14).

The student ceases to be a person and becomes a summation of her grades. This leads to Mann’s final expression of alienation where the process of assessment, apart from re-enforcing hierarchical and unequal relationships as well as normalised

judgements, determines what a student feels about what he has or has not achieved. His worth is measured by his mark and his worth, as determined by the grade, is judged against those of other students.

Thus a "good" grade reaffirms the student's worth to the institution, to his teachers, to her supervisors, to other students and to herself as well as to all those outside the education institution, such as parents, who have invested time, money and emotional energy in the student's outcome. The grade, which is itself the result of an academic judgement which cannot be challenged, cements the power relationship within academia, further strengthening alienation. As Mann notes, " Such an experience, especially when it is linked to failure, can be argued to contribute significantly to a feeling of alienation, in the Marxist sense, from the product and process of one's work, from one's self and from others" (Mann 2001: 15).

From the perspective of the student, it is the needs of the other that determine education programmes so, for example, the organisational structures and goals set for students, at all levels, in the EU are geared towards enabling students to become digitally literate so as to provide a workforce of appropriate skill levels to meet the needs of the knowledge economy. This has profound implications for the academics for two reasons. The first has been identified by researchers, such as Thorpe (2009), who talk about the priorities of academics in academia being driven by corporate goals. "As universities and departments operate according to corporate plans, so the institution takes priority over individual creativity and collegiality gives way to corporate-bureaucratic line-organization" (Thorpe 2009: 110). Here he cites the specific instance of the UK Research Assessment Exercise driving the research agenda and determining the quality of research output. The second is that if the student is alienated it poses the question: from whom is she alienated? Part of the answer has to be her lecturers and those who are responsible for running the institution. Thus the argument

advanced by Mann requires a shift in the angle of vision to bring into view the others involved in this alienated environment. What this means for scholars forms part of the discussion in Chapter Six. Having looked at the position of the student, the focus will now shift to consider those factors that impact on the landscape within which scholars work; this develops the backdrop for the discussion covered by Chapter Six.

2.7 The academic environment

The purpose of this section is to foreground the forces shaping the context within which scholars work and the pressures to which they are subject; this is in preparation for the discussion in Chapter Six. It opens by outlining the characteristics informing the higher education environment and then moves on to consider how academics are reacting to their conditions.

Sidhu (2008) identifies a number of trends that shape the higher education landscape on an international scale with practices such as standardisation and benchmarking, ranking league tables (where universities compete on both national and international levels), audit technologies, research assessment exercises, and increased class sizes, all affecting the way scholars work. There are additional pressures arising from research imperatives which undermine traditional approaches to scholarly activity and which are informed by the need to buttress and enhance the competitiveness of a given economy as well as focus on income generation. As Imrie (2009) puts it in talking about research “the trend is towards the privatisation of research and its cooption and capture by specialist, partisan, organisations” (Imrie 2009: 86). These trends arise from a fundamental overarching impulse that Adamson (2012) recognises as neoliberalism, a reform process that encourages global competition in all sectors.

In education, the neoliberal agenda seeks to mould all institutions of higher education using a die cast by a philosophy that champions “the role of the private sector in political and economic affairs, holding that competition brings about efficiency”

(Adamson 2012: 301). In Europe, the Bologna process is the driving force behind much of this change (Teelken 2012). The extent of the adverse impact this process has had on higher education is well documented with research indicating that de-skilling and casualisation are significant consequences of the process (Callinicos 2006, Fredman and Doughney 2011, Bryson 2004, Waitere et al 2011).

Some see the imposition of neoliberal policies in higher education as a contradictory and doomed reform project (Greenwood 2012, Marginson 2013) while others argue that the future of the neoliberal agenda cannot be predicted since it is contested terrain both ideologically and practically (Wolfreys 2012). However, in the present it has resulted in "the rise of managerialism and a diminishing influence of the academic voice" (Courtney 2013:41), where targets, contribution towards competitive edge, and performance management systems determine the worth of an individual academic to her institution (Franceschini and Trina 2013). Further it impacts on the working conditions of academics. Giroux notes that "in the United States out of 1.5 million faculty members, 1 million are adjuncts who are earning, on average, \$20,000 a year gross, with no benefits or healthcare, no unemployment insurance when they are out of work" (Giroux 2013)

A further feature arising from the imposition of the neoliberal agenda within universities is the emergence of new forms of measuring academic activity some of which Di Angelis and Harvey (2009) argue can be categorised as quantification, standardisation and surveillance. In this environment, measures such as benching marking related to student performance; critical success factors; and key performance indicators (Schram 2014). Although the issue of measuring staff performance in universities is not new (Green 1994, Sullivan *et al* 2013), the intensification of competition between educational institutions both within and beyond national boundaries is driving the managers of universities to develop, from their perspective, effective performance

metrics that can hold scholars to account. Here the language is concerned with, *inter alia*, geometric averages that measure the ratio of out-put and in-put based indices (Sullivan *et al* 2010), target achievement, target interconnection, consequence management, and (fuzzy) Analytic Hierarchy Process performance measurement tools (APH) (Lee 2010) and value added activities.

While there is some recognition that measuring academic performance can be a complex process, essentially what is being described here is a “management model that analyzes all organizations (universities, hospitals, railways) as if they all have the same formal structure and they consist of identical input/output processes, which can be quantified and controlled by management. In theory the manager’s job is to make these processes as efficient as possible” (Lorenze 2012: 611-612)

Another implication of the neoliberal agenda for universities has been identified by Rikowski (2012) when he states that “Indeed, the current crisis of higher education appears to be facilitating the capitalisation process: it provides opportunities for the business takeover of higher education and the expansion of private HE provision. Capital’s insertion into HE seems to be intensifying” (Rikowski 2012; lecture)

McGettigan supports this view noting that UK government policy is to open up higher education to private companies and to include the right for students in private universities to have access to the student loan scheme (McGettigan 2012). One of the policy initiatives highlighted by McGettigan, is the desire to remove funding to the established universities for subjects that can be provided by private universities.

As is to be expected, not all academics experience the environment described above in the same way or at the same time for it is mediated through specific contexts. Thus, Horle and Teichler can write that across Europe academics believe “that efforts to care for academic creativity and pursuit of knowledge for its own sake are not endangered by the growing pressures” (Horle and Teichler 2013: 34). However, they also add that

in the United Kingdom “many academics consider themselves as losing the typical academic life due to managerial pressures” (Horle and Teichler 2013: 34). This is not surprising given that the neoliberal agenda has had more purchase in the United Kingdom than in much of the rest of Europe and it could be argued that the developing shape of the UK’s higher education sector anticipates the potential contours of those of other countries.

Apart from measured outputs related to teaching, academics are judged by their engagement with research as gauged by grant approvals, publications, conference papers, and participation in the publishing process via journal editorships, membership of editorial boards and peer reviewing. That this is an increasingly competitive environment is evident with the concentration of academic publishing in a limited number of publishing houses (Hampe 2013). As a result, it has been estimated that just three publishers, Elsevier, Springer and Wiley-Blackman, control 42% of all published articles. This has a direct impact on how research is disseminated, both in terms of form and content (Peekhaus 2012). It has also had an adverse impact on the viability of niche journals, often linked to professional associations, which, while providing an important outlet for quite specific areas of research, have suffered from a decrease in funding and problems of ranking as academics and librarians are coerced into subscribing to the journals owned by the big publishing houses (Scott 2012, Rokach 2012).

There has been an increase in the number of online open access journals which have been estimated to account for between 7 and 11% of academic publishing (Kaiser 2010). While a first sight this appears to be a positive development, as Gores (2010) argues, it does raise questions concerning the business model with the possibility of authors having to carry the cost of publication which can range from \$500 to \$3000 per paper (Kaiser 2010). A further problem is associated with peer review. Here “according

to the Directory of Open Access Journals, which tracks some 5000 scholarly and scientific journals, only two-thirds are peer-reviewed” (Mcketin 2013: 1)

Eve (2014) has engaged with a number of the issues associated with open access which he records can take three forms: green open access (archiving research outputs in an online depository or depositories [sometimes referred to as LOCKSS: lots of copies keeps stuff safe]); gold open access (refers to research being made available for free in its full, original form in the journal where it was published [or, in the case of a book, being made freely available by the publisher]) (Eve 2014: 10), and creative commons licensing (“designed to allow content creators to use their copyright protections to allow others to redistribute, modify, translate and computationally analyse works, among other activities” (Eve 2014: 20).

In his discussion about peer review and open access, Eve notes that problems linked to with peer reviewing in publications are not simply confined to open access channels. Leaving aside issues such as quality, Eve recalls that peer reviewing often acted as filter to reduce the number of articles appearing in journals given the limitations of space (Eve 2014: 140). Further the process of peer reviewing is often faulty given the nature of the subject areas and various sub-sets contained within them and the targeted audiences for academic journals. He also argues that open access does not of itself promote plagiarism since there are various forms of rigorous intervention that can identify instances where work of one person is passed off as the work of another. (Eve 2014: 111)

Goodfellow (2014) argues that there are problems associated with digital scholarship and openness and that “any assumption that as academic scholarship becomes more digital it should naturally become more open ignores tensions that reside not only within the scholarly community in its response to digitality, but also between the ideals of academic scholarship and the idealisation of a democratising and inherently

educational open internet” (Goodfellow 2014: 21366). In this context he speaks of the “impossible triangle” of scholarship, openness and digitality.

A further major development has been the extensive introduction of ICT into the sector and while it is not clear to what extent this has been embedded in and positively contributed to the actual act of teaching, recent evidence appears to show that the technology can undermine professional autonomy through “exclusion from decision-making processes, increased workloads, and delimited teaching and research roles” (Johnson 2013: 126). This then is the general environment within which scholars carry out their daily tasks and the next section consists of a brief overview of how these trends affect academics.

2.8 The scholars’ perspective

As is to be expected, the conditions described in the previous section have an impact on how academics feel about their roles and the strategies they use to work in an environment riven with competition and contradiction and there has been a significant amount of research exploring these themes. While a review of the literature in this field has identified a significant amount of quantitative research (Boyd *et al* 2011) it also indicates numerous qualitative studies that have sought to illuminate the experiences of academics working in this environment. In their study in 2001, Barry, Chandler and Clark found that “Cuts, together with an increase in throughput...intensified workloads...put staff under considerable stress“(Barry *et al* 2001: 93).

In looking at how academics react to managerialism, Teelken (2012) found that academics exhibited “a clear dislike of the growing administration, the increasing competition for research funding, the obligation to fill in time-consuming grant applications and the heavier workload. Examples of frustration and stress are omnipresent” (Teelken 2012: 287). An extensive study of Australian academics found that on average they tended to work 55 hours a week, 35% of which were worked at

home. Not all of this work was directly connected to the university since many “successful” academics are also required to undertake outside consultancies (Goodman-Delahunty and Walker 2010). A more recent study of workloads at a research intensive American university found that academics work up to 60 hours a week (Misra *et al* 2012). The problem of academics pressured into working long hours does not appear to be nation-specific predicament since the previous research is supported by evidence from Iceland (Heijstra and Rafnsdottir 2010).

The increased demands being placed on academics are mediated through and amplified by the tools they use to do their job. The impact of ICT on academics has also been a topic of extensive research, covering themes such as increasing email traffic, (Jerejian *et al* 2013), surveillance (Lorenz 2012), ethical concerns relating to plagiarism (Byrne and Trushell 2013), impact (or lack of) on teaching practice (Chetty 2013), and work-life balance. Qualitative research based on 20 in-depth interviews in Iceland found that Internet technology has a serious impact on academics’ ability to manage work and home life with family holidays, irregular sleeping patterns, very early morning starts to check email, and the blurring of the distinction between work and self-time being affected by the use of technology (Heijstra and Rafnsdottir 2010). In many of the studies adopting a qualitative approach, such as the one in Iceland, the female participants had particular concerns about life as an academic.

This working environment presents a number of problems for relationships in the sector. Cummings and Finkelstein (2012) note that academics express “a sharp decline in their loyalty to their employing institutions” (Cummings and Finkelstein 2012: 131).

Furthermore, the evidence indicates that a reconfiguration of relationships is taking place within and between universities with a divergence of interests emerging between those individuals or institutions that have access to research funding and those who do not. An analysis of the impact the peer review process has on competition for research

funds found that both within and between universities the process appeared to strengthen research elites and university managers (Musselin 2013). In discussing the relationship between academics one researcher goes so far as to talk about “academic tribes” and while this may be overstating the case, it does evoke an image of desperate academic groups in conflict over dwindling resources (Jones GA 2013: 76).

However, the process here is contradictory since at the same time as being in competition with each other, institutions of higher education and researchers also seek to collaborate with each other so as to frame successful grant applications, especially from awarding bodies like the EU. To this could be added those researchers who are working for quasi-public bodies that depend on funding from both private and public sources. Many of these institutions regularly participate, alongside academics from universities, in project initiatives from organisations such as the EU running, for example, under the auspices of its 7th Framework Programme.

This brief review indicates that academics work in an environment subject to powerful external shocks that adversely impact on their working conditions as well as forcing through a reconfiguration of relationships with academia. However, at the same time one imperative arising from the neoliberal agenda in higher education, with its demand that intellectual endeavour be directed to supporting the prevailing economic formation, requires the persistence of a collegiate way of working. This then is the increasingly pressurised and contradictory landscape that provides the context for the setting covered by Chapter Six.

The next section looks more specifically at ICT and the learning experience to provide a context for considering the task undertaken in Chapter Eight which involved running a series of training programmes with the Southwark Pensioners Action Group (SPAG). (Chapter 4.2, 4.3 and 4.4 provides more detail on this group of participants.)

2.9 ICT and learning

Mann's description of the alienating experience of students in higher education resonates with concerns familiar to those connected with teaching ICT across a range of ages and genders. However, Phelps *et al* (2005) also note that research indicates that where learners have control over their learning environment they "feel comfortable about learning any software, are willing to 'have a go' and are generally not intimidated by computers" (Phelps *et al* 2005:70). The connection the approach of Phelps *et al* (2005) has with the discussion here about alienation is that their perspective foregrounds the notion that control must be given over to the learner as s/he learns. During this process end-users feel they have the power to determine the pace, direction, purpose and product of their learning activity.

Phelps *et al* (2005) speak of learners being "agents (playing) an active role in co-constructing knowledge through interaction with others and with their environment" (Phelps *et al* 2005: 73). Here it is conceivable to argue that in such a context it is possible to talk about the amelioration of powerlessness that end-users often exhibit. Phelps *et al* (2005) argue that without the development of learning based on complexity theory, computer training will fail to provide the "self-directed learners needed for an ICT based society" (Phelps *et al* 2005: 81).

2.10 Echoes of Marx and Seeman

Clearly the self-activity of the learner is at the heart of this discussion on the importance of learning based on complexity theory. However there is more than this in the scheme of Phelps *et al* since for complexity theory to work in the learning, it requires a cooperative effort in co-constructing knowledge through interaction with others and their environment. Although alienation does not form part of the discussion of Phelps *et al*, it is possible to discern themes that fit with the insights presented by both Marx and Seeman. Phelps *et al* see the application of complexity theory as

enabling a degree of power to be given over to the end-user. Implicit in this view is the recognition that powerlessness is often a problem for end-users in an ICT learning situation. Similarly, the call for ICT learners to be co-operatively involved with others is also a recognition that isolation or alienation from others needs to be overcome for learning to be more effective and transferable to new situations.

In an interesting study of the use of web blogs in a web-based distance learning environment, Dickey (2004) sought to examine the impact of blogs on student feelings of isolation, alienation and frustration and notes that the research often “identifies the lack of prompt unambiguous feedback and technical problems” as a source of student distress (Dickey 2004: 280). She also remarks that as well as providing an enabling structure for study, the technology can also cultivate feelings of marginalisation and disenfranchisement for students learning in this particular environment. The introduction of blogs for small group learning communities was in response to the dissatisfaction articulated by students taking a distance learning programme.

It would seem that the small group communities played a critical role in the success of the blogs since they helped develop the notion of a connected community. In addition, students used the blogs to discuss the issues and themes reaching beyond those expected in a more formal academic discourse and postings contained elements “of socialisation, reports of activities and events, signs of support and reports of feelings and emotions” (Dickey 2004: 283). Through this process, Dickey reports that students developed a support “system within the community” and could “empathize” with each other’s problems (Dickey 2004: 284).

In discussing the findings of this research, Dickey noted that most of the “students were very familiar with blogs and many had friends and family members who maintained their own blogs. They were familiar with the personal and self-revealing of blogs” (Dickey 2004: 288). In concluding her paper, Dickey remarks that “learner perceptions

of community and alienation impact on learning” and that the use of technologies such as blogs can enhance the community and thereby help alleviate feelings of alienation (Dickey 2004: 290).

Dickey's paper is a further example of how teachers of ICT increasingly see the need to consider concepts such as alienation and isolation and how they view technology to be both the creator and solution to these experiences. It is further recognition that non-technical areas need to be considered if ICT is to be utilised effectively.

However, the paper is illuminating from another perspective in that the concepts of alienation and isolation are not fully described or explored. Thus they are left hanging in the air, being used as labels to name some vague form of dissatisfaction. The separation of the terms alienation and isolation are an indication of this weakness since, as has been discussed above, in the variants of alienation theory, isolation is identified as a key component of alienation itself. One consequence arising from the lack of clarity is that it inhibits the formulation of appropriate measures designed to investigate the impact of student blogs on the student experience in a set of given circumstances and its relation to wider issues associated with alienation in education as a whole.

In this context it is worth recalling the papers published in a special issue of *Education Information Technology* in 2006 which reported the discussion on “Imagining the Future for ICT and Education” conference held in Norway in June 2006. A key theme identified by Watson (2006) in her introduction to this volume of papers was that the pivotal point of discussions in this field had shifted from the technology to focus on the learner and learning.

As Tondeur *et al* note in research by the Australian Department of Education, Science and Training, most “national ICT policies focus on the educational sector” and it would therefore seem appropriate in a study of this nature to consider a number of issues concerning ICT and education (Tondeur *et al* 2007: 963). The study by Tondeur *et al*

(2007) found that in schools ICT is hardly used as a tool to support the learning process. Their findings echo those of other studies (ICTeacher.eu 2010) undertaken in different policy and organisational contexts. Tondeur *et al* (2007) conclude by arguing that teachers within Flemish schools have hardly been involved with regard to the integration of ICT competency frameworks and they call for further research into this area including what they call those contextual factors that can be identified as influencing the use of ICT in the learning environment. However, they cite policies and school plans as examples of contextual factors that need to be explored and in doing so move away from one of their core findings: the significance of intimate involvement of teachers in developing ICT integration. Once again, here is a good example of research zeroing-in on the problem but lacking the analytical tools to take the discussion in an appropriate and fruitful direction.

Robertson (2003) also seeks to move beyond the technical and typically rational analyses based on resources, curriculum policy and training to look at why ICT is under-utilised in education and to look for inspiration from other perspectives. In doing so he explores the possibilities of using frameworks based on “social anthropological concepts of symbol, language, ideology, ritual and myth applied to 20th century cycles of educational change, the sociological concept of subculture and human computer interaction (HCI) theory and models of technology acceptance” (Robertson 2003: 323). Although Robertson does not make a specific reference to alienation, his discussion is peppered with comments that strengthen the view that alienation theory would be of importance in researching the area in which he is interested. He cites, for example, Papert who has argued that a “top down approach driven by administrators and academic researchers has denied teachers involvement” in incorporating ICT in teaching and learning (Robertson 2003: 329). He also makes reference to the work of Morrison that shows where teachers and students had a high level of autonomy over

the learning the take up of ICT was significantly higher than more rigid, top down approaches (Robertson 2003: 337).

Four key features emerge from this review of research concerned with education, learning and technology. The first is the recognition that the initial expectations of the positive role of ICT within the learning environment across a range of levels and subjects have not been realised. Secondly, the initial response to this problem was to focus on technical solutions which have failed to resolve the contradiction between what the technologies can do and what actually happens. The third is the more recent impulse to move beyond technical solutions and to embrace approaches inspired by theoretical frameworks associated with the social sciences. The fourth aspect is the frequency with which terms such as isolation, marginalisation, and alienation appear in the literature even if, as was argued earlier, these references lack appropriate application. This review has also shown that while the education sector is one that is well researched in relation to ICT, apart from relatively few studies, such as those of Mann and Case, the Marxist notion of alienation has rarely been employed. This confirms the decision to select this sector as one of the settings for this study thus feeding into the development of the research questions.

Having looked at the literature concerned with ICT, alienation and learning, the focus will now shift to consider the relationship between ethics and societal issues of ICT and alienation. The function of this discussion is to help provide further background for the discussion in Chapter Six.

2.11 ICT and ethics

This part of the review focuses on ethics since this field of study was one from which participants from one of the settings were chosen. In this area, Tavani had done us all a mighty service by his almost annual review of books published covering ethical, legal and social issues in ICT (Tavani 2008). However, even with Tavani's help the scale of

the problems involved in attempting to review the literature concerning ethics and ICT can be measured by the results for a search on Google scholar using the key words ICT and ethics which present some 17,700 texts. It is therefore far beyond the scope of this review to attempt to cover the area in every aspect. However, since one of the objectives of this review has been to push to the fore concepts associated with alienation, this section of the literature review seeks to consider those texts concerned with ICT, ethics and alienation.

From the research undertaken for this literature review it has been difficult to find texts that are concerned to link the issue of ICT with ethics and alienation. Floridi (1999) argues that personal data transformed by information systems and subsequently re-presented to an external audience is a process that creates alienation. This approach has been used by others to examine the connection between privacy, alienation and ethics in the context of Internet research and arrives at the conclusion that the notion of non-alienation may be more fruitful than the concept of privacy in researching the ethical use of the Internet (Berry 2004, Bakardjieva and Freenberg 2001b).

In other fields of study such as medicine, management theory, education and consumer research, there is a body of knowledge that seeks to combine ethical concepts and theories of alienation. Kanungo (1992) in an interesting study argues that managerial practices that create employee alienation are themselves unethical. Attempts are being made to employ theories of alienation to examine a range of issues in other fields. Yuill (2005) for example seeks to explore the importance of Marx's theory of alienation in theorising health and health inequalities.

Two areas of research where there is some attempt to relate ethical issues to alienation and ICT are social media (Choi and Berger 2009) and critical participatory

design (Yamouchi 2012). However, in these instances alienation in ICT research still continues to be used shorthand for a vague feeling of unease.⁶ Having looked at alienation and ICT in with regard to ICT professionals and education, the discussion now moves on to focus specifically on age and ICT as part of the preparation for the activity covered in Chapter Eight.

2.12 ICT and age

This part of the literature review will focus on research that is directed at age and ICT; in particular it will be concerned with the more mature age groups. It will open by looking at current demographic changes. It then moves on to consider the ways in which ICT is considered to be an important element in responding to the problems arising from these trends. The review will then go on to look at current research in this area. However, before the main issues are addressed, some discussion is required about what ages are encompassed by the term “mature”.

There is no real standard definition of the age at which someone is considered older. There are measures that are associated with pensionable age, but this too can vary between and within cultures and countries since the pensionable age differs across countries and is affected by gender. In some research, specific ages are not discussed and instead there are references to the elderly, senior citizens, old age, the older population or older adults (Eggermont *et al* 2006, Goodman and Lundell 2005, Blaschke *et al* 2009). Further implications are that people categorised as above are no longer employed and are subject to the stereotyping associated with people considered to be old such as a decline in physical and mental capacity as well as reduced capability to learn and utilise new technologies.

⁶ The work of Fuchs and the group associated with Triple C are an exception to this general trend.

When looking at age and employment, it appears that other factors come into play. So Newton *et al* (2005) found evidence to suggest that most people consider “older” to be around 15 years above their current age. In Germany and Austria the consensus is that the term “older” refers to people aged 45 and over. Thus Healy and Schwarz-Woelzl (2007) in their pan-European study of age and work note that the notion of “maturity/olderness is a relative concept and depends on several factors like gender, the nature of work, supply and demand, and the age structure of the industry, occupation” (Healy and Schwarz-Woelzl 2007: 4). They took 45 as the age from which people are considered older or mature.

Whatever age researchers choose to define an older person, demographic trends, published by the World Health Organisation (WHO 2011), show that populations of the advanced economies are becoming older (WHO 2011). On a global scale the WHO believes that “between 2000 and 2050, the proportion of the world's population over 60 years will double from about 11% to 22%. The absolute number of people aged 60 years and over is expected to increase from 605 million to 2 billion over the same period”(WHO 2011). It also estimates that the global population of people aged 60 plus will triple between 2000 and 2050. In the EU, the number of young people continues to decline as overall population figures are dropping whereas the population of older people is the only growing segment in Europe. It is anticipated that the number in the 50 to 64 age group will increase by 25%, while the people in the 20 to 29 age band will fall by 20% over the next two decades (Buck and Dworschak 2003:11).

Demographic trends in the United Kingdom reflect these general tendencies and “the proportion of the population in the UK who are over 60 is expected to increase from 20% in 2000 to 27% by 2025” (Goodman and Lundell 2005: 613). These trends do have a number of social, economic and political consequences and while space is not

available here to fully explore these themes, some comment is required on a limited number of pertinent aspects as they relate to this part of the study.

Demographic changes will have a dramatic effect on employment and reliable forecasts estimate that, for example, in Europe's five biggest economies, representing two thirds of regional GDP, the majority of the workforce will be 40+ years old in the next 10 years while there will be a 10% decline in the number of employed aged between 20 and 40 (Adecco Institute, 2006:2). There is a weakness in these estimates in that they do not take into account the impact of the current recession on employment. Employment studies also indicate that the ICT sector is likely to be the most important sector for future employment growth within the EU. At present the ICT sector provides employment for some 5.3 million people working in 520,000 enterprises, and 5% of total EU employment has been categorised as narrow ICT specialists who are able to create and maintain ICT tools used by others (EU ICT Task Force, 2006). While it is the case that the EU has dramatically revised its perspectives about growth based on the so-called knowledge economy and has re-focused its economic strategy on the latest buzz words such as green growth, ICT continues to be seen as the crucial element that can provide both the mechanism for growth as well as future employment. Yet all the evidence shows that in the EU, including the UK, employment in the ICT sector is very much seen as a young man's activity. A review of ICT employment within the ICT sector has confirmed that the sector is heavily skewed towards the 25 to 44 age groups, with the average age of those working in the area in the UK being 39 (e-Skills UK, 2006). Platman and Taylor (2004) in their study of the employment data for 2002 show that the overwhelming majority of IT practitioners are still aged under 45 years: in the UK 82.2% were aged under 44, in Germany 77.5% and in the Netherlands 79.5. The reasons contributing to the situation appear to flow from a bias against the employment of older people in general and specific prejudices concerning technology

and mature employees. The Employers Forum on Age has identified a history of discrimination against older workers within the ICT sector. In 2000, for example, the UK ICT industry weekly, *Computer Weekly*, carried an article which called to “sack all over 50s”, citing their inability to learn skills (Employers Forum on Age 2000). More recently, figures show that within the UK IT labour market discriminatory practices are prevalent with HR managers frequently confessing that age influences employment decision making. Age and ICT are intimately linked and the next section discusses how this has been researched.

2.13 Research age and ICT

Research concerned with age and ICT generally falls into three quite distinct categories. The first covers the economic benefits to be gained from recognising and responding to the expansion of ICT use by mature end-users. Eastman and Iyer (2004) are concerned to promote the marketing potential of the senior online consumer segment. One of their key findings is that mature users would be more inclined to use the Internet if they felt it was safe and easy (Eastman and Iyer 2004: 218). They also noted that income level appeared to determine willingness to shop online.

There are however a number of issues arising from their work. It is not clear if buying online included the wide range of options available from online auctions through to grocery shopping. It also appears that issues associated with ancillary but important activities, such as product delivery times, impacted on the choice concerning buying online. It is also not clear from the paper what is meant by safety on the Internet. Clearly this does relate to economic transactions, but it could also cover a range of non-economic issues such as identity theft, data protection, privacy, personal safety, security from physical theft, data loss through lost hardware or system failure, as well as threats to system integrity.

A more fundamental criticism of the approach adopted by Eastman and Iyer (2004) is that they perceive mature end-users as a possible missed marketing opportunity. As a result, the thrust of their argument, which is primarily directed at marketers, is that mature end-users need to be encouraged to expand their use of ICT because money is to be made from this activity. The themes that interest Eastman and Iyer are present in more recent publications such as that of Mieczakowski and Clarkson (2013) where they argue that as "50+ year olds constitute about 80% of the purchasing power and wealth in the western world, it is almost a no-brainer that competitive advantage in today's world can be largely gained by targeting a wider range of customers" (Mieczakowski and Clarkson 2013: 18).

The problem with framing the argument in this manner is that it loses power should the incomes of mature end-users decline or not significantly expand. Eastman and Iyer perceive end-users solely as sources of income and therefore as instruments of gain and, by implication, not worthy of consideration independent of the financial resources they have at their disposal.

A further example of this approach is the work of Healy and Schwarz-Woelzl (2007) where they characterised the European labour market and the business economy as displaying the following trends: an ageing population of Europe's workforce and a critical shortage of young workers with specialist skills; a shrinking labour supply; the implementation of anti-age discrimination laws; the growing contribution of ICT to EU economic growth; and an increasing reliance on ICT in economic, political and social activities. This study was primarily concerned to argue that, given the confluence of these features in the European context, employers should adopt a less discriminatory approach to employing mature workers. So once again, the focus of the argument was located in the potential worth of mature employees rather than on the more comprehensive issue of rights of access.

The second approach is covered by literature concerned with ensuring that mature people directly benefit from the variety of opportunities that the technology offers. Health figures significantly in this area with recent examples being a review of the possibilities of using ICT to help people with dementia, Lauriks *et al* (2007), Nugent (2007), Powell *et al* (2008), and integrated healthcare, Loeder *et al* (2008). Notions of networking are also prominent in the literature concerned with ageing and ICT. Gilleard *et al* (2007) have looked at the impact of the Internet and mobile phone use on attachment to place. Similarly, social capital and social networks have also received significant attention Russell *et al* (2008). Access to information is a further aspect of ICT and ageing that has provided fertile ground for research projects, Capel *et al* (2007). A recent example of such research is the study sponsored by the Centre for Ageing Research and Development in Ireland which examined issues related to e-government and mature users of ICT (Hardill 2013).

The third aspect of age and ICT that is the subject of research is associated with the older adults' use of the technology. The papers here frequently seek to identify those problems encountered by mature ICT users from the perspective of resolving access issues often outlined in the research referred to immediately above, Selwyn *et al* (2003). Selwyn (2004) has also undertaken a qualitative study of mature ICT users; and an interesting field of study focused on the communication between grandparents and grandchildren has been undertaken by Quadrello *et al* (2005).

A point of note here is that while there is a considerable expanse of research in his field, few of the texts refer to concepts directly associated with alienation, such as empowerment and control, Eggermont *et al* (2006), Dickinson *et al* (2005). It seems therefore that while concepts associated with alienation have a proven track record of investigating a whole range of social issues, they are, as yet, apparently neglected by

researchers looking at the relationship between age and ICT. This would support the decision to focus on more mature users of ICT as one of the settings for this research.

So far this review has attempted to cover three areas linking ICT and alienation, namely the ICT professional, education and ethics, and age. It indicates that while there is a significant body of knowledge within the social and management sciences which draws upon concepts of alienation to explore a range of issues linked to ICT research itself, while often referring to the term alienation, it makes comparatively limited use of theories of alienation. This is considered a weakness in the research. The review also gives support to the choices made for the settings selected for this study since the literature indicates that each setting has its merits; taken together they provide a balanced framework for the research.

This review will conclude with some of the general problems associated with the use of ICT in other areas. This is considered appropriate because it helps place the experiences described in the three settings within a more general framework.

2.14 General concerns with ICT

A recurring theme in much of the literature concerned with the non-take-up of ICT relates to the need for end-users to be more intimately involved with the initial planning and implementation of ICT systems. A study on the introduction of an Internet television service in La Grance, Georgia (Youtie *et al* 2002) found that despite being offered a free service, many potential users did not adopt the facility. While technical problems did present some barriers, the research also revealed a significant drop-off of those who had initially used the system and concluded that "it was necessary for policy makers to more fully consider and factor demand" by including targeted households in the development of the system (Youtie *et al*: 356). Work such as this echoes the findings of Gurstein (2003) who argues that system design, development and implementation should involve end-users preferably by defining systems' functions.

Aurigi (2006) reflects on the same problem as it affects urban planners. In a paper examining the impact that ICT has on the development of so-called digital cities, he notes that the discussion in this area has been dominated by infrastructural concerns, thus giving over to engineers the power to set priorities. As a result planners “have no or little active involvement” in developing the best way to utilise the latest generation of ICT. One consequence of this, Aurigu (2006) argues, is the tendency for the IT professionals to divorce cyberspace from the real physical city. He maintains that:

Technological entrepreneurs have tended to believe that computers, networks, and software could act as a quick-fix for a variety of urban problems, by changing the rules the game was played by. This has allowed ‘digital city’ initiatives to be often conceived and deployed in isolation, confident that the innovative potential would be a catalyst for change. This ‘pigeonholing’ of innovation, competencies and decision making can – and does – easily reach extreme levels of fragmentation (Aurigi 2006: 4).

Planners who have the responsibility for the development of urban areas appear to have no connection with the technological experiments focused on urban organisation. This process, argues Aurigi, will strengthen what he calls the dualisms of “audience vs customers vs citizens as well as government vs governance” (Aurigi 2006: 6). There is a long history within the discipline of human geography concerning the alienating aspects of modern cities and ICT has been perceived as a possible mechanism to encourage people to engage more effectively with those who run cities as well as other urban dwellers. The problems identified by Aurigi indicate that the ambitions of those who seek to develop the digital city are often undermined by the drive to satisfy the need to engineer solutions for problems or to make initiatives economically viable (Aurigi 2006).

In another area of investigation concerned with e-inclusion, Mancinelli (2008) refers to the rich tradition within sociology associated with investigating the connection between events and processes such as crime, poverty and anomie and she notes that social exclusion “*stems from the combination of multiple factors of deprivation*” (Italics in the

original) (Mancinelli 2008: 1). She argues that while the digital divide is essentially about social access to ICT, very little research has been undertaken that links social exclusion and e-inclusion and that emphasis has so far focused on hard issues such as broadband penetration. Mancinelli argues for a readjustment to the research but is not clear about how this would be undertaken and what theoretical underpinnings could be used in this activity.

2.15 Conclusion

This literature review has engaged with a number of relevant texts pertaining to alienation theory and has referenced the research as it concerns the ICT professional, education and ethics, and age; the three themes covered in this thesis. In doing so it has covered those texts pertinent to research focused on IT professionals and has discussed notions of professionalism as well as the work experience of this particular group.

The discussion has emphasised that while theories of alienation have informed a rich seam of work other fields, they have been under-utilised in the ICT subject area save for vague references to feelings of dissatisfaction. This indicates there is a space in researching ICT that can be partially filled with the contribution made by this doctoral research. The review of research also provides support for and was influential in the way in which the research questions were developed. The next Chapter of the thesis considers the research design and methodology employed in this study

Chapter 3: Research design and methodology

3.1 Introduction

The evidence contained in the literature review in the previous Chapter asserts that something called alienation does exist, even if it is, when applied to ICT research, sometimes described in vague terminology, and that it is possible to talk about the relationship between it and ICT (International Sociological Society 2010). Furthermore, as the literature review also revealed, while there is a discussion about the causes and nature of this phenomenon and how it can be researched and measured, there is general agreement within a growing body of academic enquiry that alienation should be the subject of study. There are, however, a number of major problems associated with undertaking such a project that have to be articulated at the outset.

Alienation does not form part of the natural world independent of human activity. While it can be expressed through human activity and can be evidenced by a material reality, it does not always have to take on a structural form. Furthermore, while alienation is an ever present feature of human relations, expressions of alienation are not constantly observable; its expression is mediated through specific contexts and the triggers generating these expressions are linked to specific events. Alienation tends to ebb and flow; to break the surface of seemingly tranquil waters. This creates a problem associated with how to reveal the presence of alienation. Therefore rather than considering developing tools that can simply seek to measure levels of alienation, the challenge is to create mechanisms that can identify the fluidity of alienation and bring it to the surface. This requires an approach that brings alienation to the surface where it can be subject to a degree of investigation and discussion.

Finally, it is generally agreed that researchers should be aware of their own presuppositions and biases (Fielden 2003) although it is not always agreed that this of itself should be a negative factor (Janesick 2000). For this research it is also necessary

to recognise that I too am subject to feelings of alienation which are bound to influence the direction, progress and outcomes of this research. In this respect the task here is to guard against the adverse impact feelings of alienation can have on both the progress and conclusions of this project. With these caveats in place the discussion will now focus on the appropriate research approaches that can best facilitate the study without adding to the problem it seeks to investigate.

The task of a researcher is to employ an appropriate research methodology or set of methodologies which, as Denzin (2009: 13) notes, should be seen as mechanisms that allow the researcher to move between theory and reality and to provide data that can be subsequently analysed and validate or challenge an appropriate theory.

Perhaps it should be noted at this point that in grounded theory, theory or reversed engineered hypothesis is the culmination of the research rather than appearing at the start (Rowlands 2005, Corbin and Strauss 2008, Denzin and Lincoln 2005).

Baum *et al* (2006: 854) recall that a research methodology is a “strategy or plan of action that shapes our choice and use of methods and links them to the desired outcomes.” In developing a research methodology, it would be tempting to roll out a pre-defined set of measurement tools with which participants could engage or undertake. However, adopting and developing such a research methodology in this particular research context could re-enforce the very experiences the research seeks to critically examine. Since this research is essentially concerned with alienation and, as the literature review above has indicated, this can be expressed through a range of experiences at the heart of which is the notion of powerlessness, a lack of control over activities with which one is engaged, failure to allow participants to help develop the research approach could re-enforce alienating experiences. Therefore the challenge here is to employ a credible research methodology that can provide an examination of the topic but at the same time minimise the possible alienated experiences of research

participants and the researcher.

Given the above, the discussion in this Chapter is primarily concerned with evaluating a range of research philosophies so as to identify the most effective approach for this research context. After initially looking at generally accepted research theories, the discussion then shifts to consider what other methodological candidates offer themselves for this task. As a consequence, this Chapter attempts to describe, in broad brush strokes, a number of key moments in the development of social research philosophies and the following discussion treads a familiar path that looks first at the three main traditions of social research, namely positivism, the interpretative paradigm and critical theory. During this discussion, issues connected with possible candidate approaches for this research such as hermeneutics, phenomenology and structuration will be considered, as will the relationship between agent and structure. It is appreciated that what follows is not the only way to engage in this discourse. Mingers (2004), for example, undertakes a similar review but by constructing his argument around categories such as conventionalism, empiricism and pragmatism. This section concludes with an expanded discussion about the significance of CR and critical discourse analysis to research generally and their pertinence specifically to this particular study.

Having presented a justification for the research methodology for this study, the Chapter moves on to identify in greater depth the potential of PAR as a guide for constructing an appropriate research framework for the task at hand. Finally the Chapter concludes with a discussion justifying the choices made with regard to the selected cases.

3.2 Approaches to social research

3.2.1 Positivism

Reason (2006) talks about research activity being dominated by two broad trends categorised as quantitative hypothetico-deductive research, sometimes described as the technocratic perspective, and interpretative, qualitative research with the former retaining a dominant position. Howe (2009a, 2009b) argues that the technocratic method has its roots in positivism and as such mirrors the weaknesses inherent in that tradition in that it seeks to adopt a kind of “formalized mechanism for causal inference, explanation, and prediction that characterized physics” (Howe 2009a: 769) by attempting to apply the scientific endeavour to the social sciences. An analysis of research into information technology in organisations found that 96.8% were based on a positivist framework (Orlikowski and Baroudi 1991). Later research by Choudrie and Dwivedi (2005) appears to support the findings of Orlikowski and Baroudi, although it indicates there is a difference of approach between researchers in the United States and Western Europe with the latter more receptive to a qualitative methodology.

Parker (2008: 912) refers to positivist tradition as the “monolithic, economic, and positivist research engine” where the technocratic method relies on purely third person knowledge with the researcher as the “detached impartial observer”. Here the emphasis is on the collection and analysis of quantitative data which can involve statistical modelling and searching for correlations between measurable characteristics (Rex and Baumann 2008). In doing so, it looks to build upon a reductionist notion of investigation which holds that a question or statement is verifiable or falsifiable through experimentation. As Howe (2009b) recalls, the positivist perspective has been criticised by a range of social researchers for, *inter alia*, failing to appreciate that observation was value laden; for attempting to test statements in isolation; and for believing that

data, experimentation and resulting evidence could be isolated from their “humanly constructed conceptual content” (Howe 2009b: 429).

Laverty also identifies the “quest for indubitable truth” as a further weakness of the positivist method (Laverty 2008: 21). These criticisms do, of course, touch upon the whole discussion about the relative autonomy of scientific endeavour which, unfortunately, neither time nor space allow for in this study. Suffice to say at this point that by the mid-1990s, positivism was attracting a number of criticisms creating, as Smith (1991) notes, a crisis of value. From a perspective that seeks to examine human behaviours, there are four further weaknesses of the positivist approach. The first is that it has a “view of the world as being flat, undifferentiated and unchanging” (Bhaskar in Bhaskar and Callinicos 2007: 98). This criticism is particularly pertinent to research within the field of ICT since both its subject matter, in terms of technology, and its relationship to human action are in a state of constant flux. The second weakness is that the approach seeks to create a closed system of experimentation in an effort to identify influential variables; a process which denies the notion that any one particular (or set of particulars) is “modified and restricted in various ways because it’s operating in relation to all sorts of other powers” (Callinicos 2004: 90).

A further problem with the positivist approach is located with its inability to adequately deal with the relationship between agent and structure, a relationship that is at the heart of, for example, Giddens’ (1979) structuration theory and CR, both of which are discussed in more detail below. This problem arises because positivism has a tendency to separate things and relations. Ollman (2001) refers to this as the “common sense view” that there are things and relations but that these cannot be subsumed into each other (Ollman 2001: 289). These latter criticisms are more fundamental than those normally associated with the quantitative-versus-qualitative debate and cast doubt on the effectiveness of the positivist approach for this research project since it

deals precisely with an aspect of the world that is in constant change and is essentially concerned with general relations, albeit mediated through specific contexts.

3.2.2 Structural functionalism

It is appreciated that within the positivist family there are a variety of theoretical approaches. One such is structural functionalism which focuses primarily on institutions and social systems and has its roots in the work of Durkheim, and was developed by researchers such as Radcliffe-Brown and Malinowski (Tavory and Timmermans 2009; Chilcott 1998). Porter and Cordoba (2009) neatly summarise structural functionalism by identifying its key assumption as being that “the technical parameters, social institutions, customs, and beliefs of social systems may all be included in a single, integrated whole that may then be managed as a mechanical system” (Porter and Cordoba 2009: 326). The implication here is that all parts of the system are interdependent and need to operate in harmony for the system to function effectively.

It could be argued that this approach would have some relevance in this study given that it does seek to investigate interlocking associations. However, in discussing structure-functionalism, Angrosino notes that in concentrating on institutions, it has tended to pay insufficient attention to issues such as art, language and, particularly important for this research theme, technology (Angrosino 2007: 3).

Symbolic interaction theory in rejecting the premise of structural-functionalism sees society not as “a set of interlocking institutions, as the structural-functionalists might have thought, but as an ever changing kaleidoscope of individuals interacting with each other” (Angrosino 2007: 5). Researchers coming from a feminist perspective have also developed a critique of structural-functionalism arguing that it fails to appreciate that relationships in society are determined by gender; and have criticised it for claiming the researcher’s neutrality and objectivity. As a result, argue supporters of the feminist

perspective, structural-functionalism strengthens the male bias of social science knowledge (Uddin and Hamiduzzaman 2009).

Developing out of the 1950s and 60s, cultural studies sought to draw upon a wide range of methodologies to investigate, *inter alia*, the relationship between cultural practices and power. Explicit in this approach is a criticism of structural-functionalism in that the latter does not seek to develop a critique of society as a whole. As During (2007) notes, cultural studies developed in Britain as an attempt, essentially by academics on the political left, to provide a theoretical framework to aid critical analysis of post-war economic, social and cultural development. It was also seen as a mechanism that could unite different disciplines or “even help federate them” (During 2007: 24).

An additional problem here is that, apart from exhibiting a number of the weak characteristics of positivism as described above, structural functionalism is very much focused on institutions and sidelines agency. This is a major drawback for any study that seeks to investigate alienation where the experiences of the agent form a core component of the research. Having looked at the positivist tradition and examined a number of criticisms of this approach that have left it wanting with regard to this particular study, the discussion will now consider the interpretative paradigm.

3.2.3 Interpretative approach

Criticisms such as those detailed above concerning positivism led a number of researchers to conclude that social research needed to develop different methodologies, the most prominent of which is the interpretative approach (Osborne 1994, Walsham 1995). The interpretative, qualitative method, seeks to explore the first person perspective, thereby focusing on an agent’s own explanations and reasons for an event rather than referring to a given general theory. Where positivism emphasised “prediction, control and measurement”, other interpretative approaches centred on

“discovery, description and meaning” (Laverty 2008: 21). Black (2006) argues that the strength of the interpretative approach arises from its capacity to examine complexity and meaning in situations. From the agent’s perspective, the researcher recognises that reality is seen as an interpretation of experiences. The researcher also recognises that since data does not speak for itself it needs interpreting (Keating 2009).

As Onwuegbuzie and Leech (2005) recall, the discussion surrounding the assessment of these two approaches, positivism and interpretative, is often conducted in the form of quantitative versus qualitative research. However, as Howe (2009a) also points out, if an adherence to the positivist perspective is removed, the differences between qualitative and quantitative research cease to be of major substance and instead become significant only in that one approach may be better suited to a particular form of research activity. For Howe, therefore, the Chinese wall between the qualitative and quantitative research melts into dust once the weight of positivism is stripped away. So, for example, action research (which is discussed in greater depth in 3.3 below) may include the collection of quantitative data that can be used as the basis for or alongside qualitative or more innovative forms of research.

Although, as is argued below, a qualitative approach to data collection has been preferred for the research covered by this thesis, this choice should not be taken to assume that it is believed that quantitative data collection is synonymous with positivism. As Adam argues “postpositivism also does not reject quantitative methodology, but it does attempt to harness it within a more complex research design” (Adam 2014: 5) Fotheringham makes a similar point when he says that a quantitative approach does not necessarily “carry all the hall marks of positivism’s inter-connected features” (Fotheringham 2006: 241). Given that this thesis is concerned with Marx’s view of alienation, perhaps it is worth recalling that Marx himself resorted to frequent use of quantitative data in his analyses and that towards the end of his life he prepared

a questionnaire to be distributed to “25,000 French workers to determine...working conditions and raise questions in the minds of workers about their working condition” (Erdogan 2012: 353). Marx also made extensive use of quantitative data in discussing issues in the *Manuscripts* as well as in later publications such as *Capital*. Finally, many Marxist economists, while rejecting a positivist approach, make extensive use of quantitative data to explore issues such as the falling rate of profit and the re-distribution and concentration of wealth (Roberts 2014)

An interpretative framework would, at first sight, seem appropriate for researching alienation, as it very much centres on the views of the participants since it seeks to give a voice to their perceptions. Phenomenology and hermeneutics are two prominent traditions within the qualitative approach and both are evident in information systems research. Walsham (1995) notes that Boland writing in 1979 and 1985 “uses phenomenology and hermeneutics as the philosophical bases for his research” and that he believed that the “design and study of information systems is best understood as a hermeneutics process” (Walsham 1995: 378). Further, Walsham (1995) believes that the attitude towards the interpretative approach has noticeably softened in the more prestigious journals publishing IS research papers. Given that substantial ICT research has been influenced by these traditions it would seem appropriate to interrogate their significance for this research programme; the following section seeks to undertake this task.

3.2.4 Phenomenology

Laverty (2008) has produced a useful overview of the history and methodological issues associated with phenomenology. In this approach true reality and meaning result from an agent’s experience and the function of the researcher is to capture and describe these experiences, however trivial these may seem at first sight. It recognises that these experiences are a reality. There are two significant strengths of this

approach in that it puts the experiences of the agent at the very foreground of research activity and undermines the notion that she is merely a passive recipient of some forms of external stimuli. Since phenomenology strives for reality based on experience, some proponents argue that in doing so it overcomes the dualism that arises from the separation of the individual and an external reality and/or structure.

Walsham's review of interpretative information systems research recalls that soft systems methodology research (SSM), such as that undertaken by Checkland and Scholes in the 1980s, (Checkland and Scholes 1990) was influenced by phenomenology. In this instance, SSM "embodies a philosophy of organisational intervention that sees different individuals and groups as constructing interpretations of the world, the interpretations having no absolute or universal status" (Walsham 1995: 379).

While foregrounding the actions or motivations of the agent, a phenomenological approach is not without a number of problems. The main difficulty is that it marginalises the notion of an objective reality that needs to be investigated or that has an impact on behaviours. Archer argues that phenomenology "cannot exceed a description of lived experience and excludes inquiry into the objective conditions of its possibility" (Archer 2010: 291). It can be argued that it is not the case that there are different realities, as defined by individual accounts, but that there is one reality which is mediated through a particular context, such as time, place, and culture. It is this mediation that gives expression or shape to reality and therefore seems to present a range of realities. It is not that there are many realities; it is that there are many manifestations of one reality because a multitude of contexts. These discussions matter because they help us develop a shared understanding of our world. So taking poverty as an example, we can say that poverty exists, we can discuss or investigate what it means to be poor, we can use tools to measure poverty, and we can examine why there is greater poverty in

some contexts rather than in others. This enables and encourages a shared recognition that context influences or mediates how poverty is expressed. If someone dies from the lack of nourishment because they do not have access to or are unable to buy food because of poverty, there is a shared understanding that this is not an interpretation of poverty but a real event; it is an objective reality. These shared understandings are very important because they provide a common perspective that allows us to ask a more fundamental question, namely, what is it about our world that enables poverty to exist? A similar discussion could take place covering issues directly connected to ICT, such as the digital divide, privacy, and the role of technology in political movements.⁷

3.2.5 Hermeneutics

As is to be expected there are a range of approaches that come within the overarching nomenclature of hermeneutics. Cole and Avison (2007), in making a case for the use of hermeneutics in information systems research, note that “hermeneutics is a theory of interpreting texts. An ‘interpreter’ is one who renders words intelligible and meaningful” (Cole and Avison 2007: 821). They go on to argue that the hermeneutic methodology is one which seeks to determine the “exact meaning of a word or phrase” as well as outlining appropriate protocols for the interpretative process (Cole and Avison 2007: 822). Harvey and Myers (1995) argue that hermeneutics has a significant role to play in information systems research and note that there are a number of subsets within the hermeneutic tradition including pure hermeneutics which “is uncritical in that it takes statements or ideologies at face value” (Harvey and Myers 1995: 21).

Postmodern hermeneutics develops an interpretation of texts from a different perspective with interpreters resisting totalities, but using political criticism and

⁷ Lukács’ discussion of social totality, mediation and immediacy is of relevance here and is given appropriate consideration by Mészáros (1972).

deconstruction as sources for their interpretation (Jeong and Dreyer 2003). The problem here is that by adopting this approach it becomes impossible to develop an objective meaning of a given text since, as Maddison says, there is no such thing as an objective or true meaning of a text or set of texts since facts “are what a cultural, conversational community agrees they are” (Madison, 1990: 191 in Myers 2004). Critical hermeneutics seeks to tread a path between pure and postmodern hermeneutics with the interpreter seeking to assess the objective value of different interpretations and draws its inspiration from general critical theory (see section 3.2.8 below) thus emphasising issues such as power, empowerment, control and social participation. As Frymer (2005) argues, this approach was used by Freire in his development of a philosophy of education centred on the notion of youth education. There are a number of problems associated with using a hermeneutic approach for this particular study. There is the implication that the interpretation of a text or set of texts, such as interviews, will provide *the* view of the experience. “Interpretivism asserts that reality, as well as our knowledge thereof, are social products and hence incapable of being understood independent of the social actors (including the researchers) that construct and make sense of that reality” (Orlikowski and Baroudi 1991: 13). As has been noted above, alienation is both a product of and a contributor to social relations. Since the hermeneutic approach would, in effect, reveal a one-sided view of alienation with the possible implication that expressions of alienation arise from subjective rather than objective conditions, it is not considered a productive approach for the study.

3.2.6 Postmodernism

The postmodernist perspective, a relatively recent contribution of social theory, argues that it would be “better to assume that all social structures are pure social constructions, that history is fully relative and open to chance, and that there are no forms of unity and universal commonalities of humans or society” (Fuchs and Sandoval 2008: 118). For

the postmodernist, society is divided into disconnected elements each of which can be researched without reference to the other so, for example; culture can be considered quite separate from politics or economics. Postmodernism also sets out to challenge universal notions of truth and objectivity: “there is no objective standard in society, only a plurality of different meanings and identities” (Fuchs and Sandoval 2008: 121). Consequently, challenging hierarchies and hierarchical knowledge are very much the focus for postmodernist inspired social research. The questioning of established assumptions can be a valuable approach to research, as is the move to give the agent a more central role in the research agenda.

However, a prominent criticism of the postmodernist perspective is that it undermines any conception of shared interests, or common ground or dialogue, thereby making connections between different entities difficult to investigate (Wayne 2007). This does of course present a number of difficulties for this study for if the postmodernist approach is adopted, it becomes impossible to draw out any generalities or commonalities between the various arenas within which this research is located. As the discussion above indicates, this research programme needs to utilise a theoretical base that focuses on relationships, can deal with agency and structure, and respond to change. Structuration theory is one possible candidate that can meet these challenges.

3.2.7 Structuration theory

Structuration theory, developed by Giddens, is one method that also seeks to provide a resolution to the problems arising from the relationship between agency and structure. The reference to external structures within this approach has proved to be attractive for those researching within the IS field. Rose and Scheepers (2001) and Jones and Karsten (2008) outline the case for adopting Giddens’ structuration theory (ST) in information systems research. Jones and Karsten, in their review of ST, note that this

approach has influenced a significant number of research papers in English within the IS field, with some 531 either directly drawing upon ST for analysis or considering it as a possible tool for exploration. Furthermore, as the “central concern of structuration theory is the relationship between individuals and society” and in doing so it “proposes that structure and agency are a mutually constitutive duality” (Jones and Karsten 2008: 129), it does appear to concern issues associated with alienation. It would seem therefore that any consideration of research theory within the field needs to examine the relevance of ST.

Giddens developed his theory of structuration in an attempt to overcome the problem of dualism of structure and action; the notion that existing structures prevent the development of actions that can influence/change those structures and he argues that “the structural properties of social systems are both the medium and the outcome of the practices that constitute those systems” (Giddens quoted in Callinicos 2004: 94). A further refinement in this framework is that structures arise as unanticipated outcomes of actions by agents and this may be unacknowledged at the time of events. In addition ST identifies “three main dimensions of structure, signification, in which agents communicate and rationalize their actions by means of interpretative schemes, domination, arising from asymmetries in the distribution of resources, and legitimation, through which different forms of conduct are sanctioned by means of norms” (Callinicos 1985: 136).

Signification can be considered as the myriad of signs and symbols that inform about the role and function of a person within a given context and allows for interpretation of those roles and functions. Domination from an ICT perspective could be expressed in the asymmetrical distribution of access to and knowledge of the capabilities of the technologies. Here it is possible to talk of the IT expert with the power to access and change the capability of a personal computer used by someone else. Legitimation for

this form of domination could, for example, be reflected in a code of conduct governing the use of ICT at work. Giddens does not argue that these dimensions operate in harmony with one another. Rather they "operate in terms of each other but at the same time contravene one another" thereby creating conditions of contradiction" (Giddens 1979: 141).

The focus on signification, domination and legitimation does recall a number of the themes discussed in the literature review on alienation and so would indicate that ST has a number of strengths that could be used in this study. This view is further supported by Giddens' argument that structures can both enable and restrict action; they are not simply all conquering barriers to change. A key aspect of ST is the notion of "knowledgeable human agents, who resist, blunt or actively alter the conditions of life that others seek to thrust upon them" (Giddens 1981: 171). This approach opens the possibility of action by agents and Giddens argues that since conditions are no more than internalised rules, an individual is free at any point to follow the rules differently: 'the individual could have acted otherwise' (Giddens 1979: 56).

However, as Archer (2010) and Callinicos (2004) discern, there are a number of problems with ST. Archer criticises ST for focusing too tightly on the mutual constitution of agency and structure thereby strengthening the tendency towards the central conflation of both structure and agency subsequently creating major problems with any attempt at analysis of the dual aspects of the Giddens model. The difficulty here is that ST, while identifying a number of useful directions for research, such as signification, domination, legitimation and contradiction, would be problematic to use in this study since it is necessary to separate alienation experienced by individuals and the structural causes of that alienation.

The need here is to recognise that although ST implies that people create and recreate the conditions of alienation, there are structural factors beyond their immediate control

that drive the alienation process. As Archer argues ST underplays the impediments that social structures present to individuals thereby constraining the degree of freedom with which they can act (Archer 2010 [1982]: 234). “This conclusion is strengthened when we consider that structures connect not named individuals but any persons who come to occupy the positions specified by the relation(s) in question” (Callinicos 2004: xxv).

ST then refocuses research activity back onto structure and agency but does not allow for an appropriate abstraction of these constituent parts to enable effective analysis. Nonetheless, a consideration of the merits of ST is an important part in the process involved in identifying an appropriate methodology for this research since it reasserts the relationship between agency and structure. Similarly, consideration of critical theory can facilitate the selection of a research strategy and this forms the subject of the next section.

3.2.8 Critical theory

Critical theory is often described as a term that loosely covers a range of theoretical constructs designed to analyse critically society. It is generally considered that theory is deemed critical if it “provides the descriptive and normative bases for social enquiry aimed at decreasing domination and increasing freedom in all their forms” (Bohman 2013). So, for example, in talking about the economic crisis that began in 2008, Marcuse (2009) notes that one of the key functions of critical theory “may well be to expose and evaluate both the strengths and weaknesses of the existing system and the ultimate nature of its crises, thus informing practice as to what its strategic potential actually is, as well as analyzing the strategies that that practice might adopt” (Marcuse 2009: 188). Kincheloe, and McLaren propose that a “critical social theory is concerned in particular with issues of power and justice and the ways the economy; matters of race, class and gender; ideologies; discourses; education; religion and other social

institutions; and cultural dynamics interact to construct a social system” (Kincheloe, and McLaren 2002: 90).

Verdeja (2009) notes that the distinguishing features of critical theory are an adherence to empirically grounded analysis; a critical evaluation based upon explicit normative principles; and concrete proposals for social change. Critical theory also offers an alternative to the technocratic and the interpretative approaches to social enquiry in that while it provides the space for the role and voice of the agent in research, it does not collapse the need for analysis for it encourages the use of appropriate theory or the development of theory to explain events and actions.

Looking more specifically at ICT, Kellner (2006) argues for a critical social theory that can theorise on the emergent technologies and their impact on social life. In discussing the possibilities of developing such a theory, Kellner looks for inspiration from the Frankfurt School which sought to “criticise institutions, social relations and phenomena from a normative standpoint through which existing realities can be judged” (Kellner 2006: 52). The strength of such an approach is that it seeks to avoid the errors of the technophile and technophobe perspectives, thereby presenting a balanced perspective of the given area. Kellner believes that a critical theory of technology would focus on the potentials of specific technologies and facilitate a creation of a “substantive vision of the role of technologies in human life” across a range of contexts from work to ecology to democratic participation. In this formulation, a critical theory of technology would embrace an examination of the negative effects of technology and would “valorise” what he sees are the “empowering, democratising and ecological positive” forms and uses (Kellner 2006: 54). From the perspective of this research project it would seem that the approach described by Kellner would have much to offer. However, the area that he does not comprehensively address is the question of agent

and structure. This omission is considered a weakness and this is considered in the following section looking at CR.

3.2.9 Critical realism

Critical realism (CR) has developed within the school of critical social theory but is more explicit in stating that its initial inspiration was derived from a Marxist model of the world and is increasingly seen as a valuable tool for those researching information systems and other ICT related activities⁸. CR seeks to overcome a number of dualisms that exist within social research, namely positivism and hermeneutics, individualism and collectivism, agency and structure, values and facts, reasons and causes, and mind and body (sometimes referred to as society and nature) (Bhaskar 1998: xiv).

Porter (2002) argues that CR overcomes dualisms and dichotomies by using a “modified naturalism” which recognises the difference between the natural and social worlds, yet also acknowledges their commonality on the “connection between empirical investigation and theory construction” (Porter 2002: 62). Further, CR recognises four key points: the relationship between structure, action and context is complex and multi-layered; rigorous observational research is required to lay bare the “interactions of individuals both at the level of action and motivation”; the use of theoretical constructs is required to explain the pattern of action by individuals; and an acceptance of “the existence of structured, but non-determining social relationships” (Porter 2003: 70).

Bhaskar also argues that seeing “society rationally and emergent” and adopting a “transformational model of social activity” further helps overcome the dualisms prevalent in social science (Bhaskar 1998: xiv). A critical realist approach contends that the world is “a pre-existing condition for intentional agency” and that “society is both the

⁸ The thirteen year history of the *Journal of Critical Realism*, its inclusion in SCOPUS, its recent move from four to five issues per year and the development of centres such as the International Centre for Critical Realism, University of London, are indicative of the widespread appeal of this approach across a range of disciplines.

condition and outcome of human agency and human agency both reproduces and transforms society” (Bhaskar 1998: xvi). However, unlike Giddens' theory of structuration, CR recognises that society is a “pre-given for individuals who never create it but merely reproduce or transform it” (Bhaskar 1998: xvi).

Bhaskar argues that the critical realist conception contrasts with hermeneutics in that “actors' accounts are both corrigible and limited by the existence of unacknowledged conditions, unintended consequences, tacit skills, and unconscious motivations”. He also argues that in opposition to the positivist view, CR maintains that “actors' accounts form the indispensable starting point of all social enquiry” (Bhaskar 1998: xvi).

There are a number of further core elements of the critical realist approach. These include the notion of relationships with society being “an ensemble of structures, practices and conventions that individuals reproduce or transform” (Bhaskar 1991: 76). Here Dobson (2002), following Layder (1993) argues that CR would demand any given social situation to be subject to a multi-layered investigation involving the relationships between the layers. Such a process will involve the development of abstractions that are drawn from “the real stratification (and ontological depth) of nature and society” and an attempt to “grasp...precisely the generative mechanism and causal structures which account in all their complex and multiple determinations for the concrete phenomena of human history” (Bhaskar 1998: xvi).

The foregoing indicates that the emphasis in CR lies with ontology which includes relationships. Further, as Zachariadis *et al* note, CR starts from the view that a world exists independent from our knowledge of it and that our knowledge of that world can be fallible (Zachariadis *et al* 2010).

In addition, the world consists of intransitive and transitive objects; the former being things that exist and act independently of our knowledge of them and the latter being “artificial objects fashioned into items of knowledge by the science of the day” (Bhaskar

1998: 11). From an ICT perspective, Mingers (2004) argues that every time someone sits down at a computer, she is accepting that there is an existing set of “structured, intransitive domain resources, concepts, practices and relationships” (Mingers 2004: 386).

Critical realist research is based on recognition of the dynamic interaction between three layers, the real, the actual and the empirical. The real is the world as it exists; the actual is that part of the world as we experience it and the empirical is that part of the world we are able to research and capture. There are a number of other key elements characteristic of CR such as the “notion of causality as a generative mechanism” and the action, including the latent potentiality of change even if such change is not realised, which is activated by a set of complex generative mechanisms (Smith 2010: 227). As a result the social world is considered an open system.

Drawing upon Archer, Bygstad (2008) notes in his paper on information infrastructures that CR is a unity of a realist ontology and interpretative epistemology with the best theories being those that provide the closest approximation to reality. Thus the object of research is to reveal and provide the best possible explanation for underlying mechanisms and their relations. Such an approach appears to be most suited to the study of alienation and ICT.

Building upon Bhaskar's notion that “illusions are in one sense real and in another sense unreal” (Bhaskar and Callinicos 2007: 104) it is possible to conceive of a situation where the illusion, in this instance a person believing they are not alienated, can be real and unreal at the same time. The belief that a person lives in an unalienated state can appear real to that person. Yet this creates a contradiction where illusion and reality inhabit the same emotional and intellectual space. The focus then becomes how this contradiction can be resolved. It cannot be taken as a given that the contradiction is resolved by the recognition of the illusion. It can be resolved by the

illusion becoming a concrete expression of reality. Bhaskar refers to the “spontaneous, unpaid creativity of the workers” that enables workplaces, be they production lines, offices or call centres, to keep going (Bhaskar and Callinicos 2007: 105). Spontaneous creative activity is employed to overcome the shortcomings of ICT, with, for example, end-users writing copious notes in the margins of training manuals.

Archer (2010) has developed the morphogenetic approach to CR that centres on morphogenesis: “processes which tend to elaborate or change a system’s given form or state” (Buckley 1967:58 in [Archer 2010: 274]) and morphostasis, where events leave a condition unchanged. Involved in this perspective are considerations associated with actions and/or structures that constrain or enable change. Further, Archer argues that the “morphogenetic approach endorses a stratified ontology for structure ..., cultures ... and agents ... because each has emergent and irreducible properties and powers and explains every social outcome as a product of their interplay” (Archer 2010: 274).

In developing this view of CR, Archer contends that a double morphogenesis can occur where “actors themselves change in the very process of actively pursuing changes in the social order” (Archer 2010: 274). In a further refinement to her argument, Archer brings in the notion of reflexivity and its relationship to habit. Here Archer believes that “reflexive deliberation is increasingly inescapable in order to endorse a course of action held likely to accomplish it; self-interrogation, self-monitoring, and self-revision are now necessary given that everyone unavoidably becomes her own guide” (Archer 2010: 285). Note has already been made of the increasing application of CR within information systems and ICT research. The approach outlined by Archer is similarly being utilised by researchers in the field (Cecez-Kecmanovic 2010, de Vaujany 2008, Jones and Healing 2010, Markham 2006, Mutch 2010, Strong and Volkoff 2010).

The requirement here is for a research philosophy and set of tools that can: recognise the depth of analysis research on alienation requires; cope with notions of mediation; incorporate potential and existing relationships between people and objects; handle relationships between people; accommodate the ebb and flow of manifestations of alienation; look for the generative mechanisms that create expressions of alienation; be amenable to managing results that are non-linear and changing; encourage the researcher to embrace the reflexive capabilities of research participants; encourage research to consider the creativity of participants/subjects of research; and finally relate to the notions such as powerlessness and estrangement that are characteristic of alienation.

In addition, the theoretical framework sought for this research project needs to be able to give voice to the agent while recognising that voice will be mediated by context and will articulate experiences without fully appreciating the nature of the external causes of those experiences. CR appears to provide the overarching framework that can match the requirements of this study.

Perhaps it is appropriate to insert a cautionary note at this point in relation to CR.

Brown (2013) makes an interesting argument about the nature of CR research in that “the critical realist ontology of separable structures in interaction hinders comprehension” thus making the full understanding of a given (in his case capitalism) system difficult to achieve. In doing so, he is, in some respects, echoing the criticisms of Seeman’s approach to alienation. Fleetwood (2013) rebuts Brown’s argument by reasserting CR’s capability to perceive of systems as whole entities and to identify that a “social system is a collection of structures and mechanisms, the agents who reproduce and transform them, relations between these agents, and relations between these structures and mechanisms” (Mingers 2011 in Fleetwood 2013: 9). The debate between Brown and Fleetwood is helpful because it sensitises the researcher to the

potential pitfalls when using CR as well as encouraging a more general awareness about possible difficulties when using any particular research methodology.

3.2.10 Critical discourse analysis

While it is believed that a convincing case has been made for adopting a critical realist approach to the research, there remain two further problems, namely what attitude should be taken towards the textual analysis of the data collected during this study and how those data can be collected.

Critical discourse analysis (CDA) is the most likely candidate for the first activity because, as Wodak and Meyer (2009) argue, it draws upon a problem based approach and “is characterized by the common interests in de-mystifying ideologies and power through the systematic and retroductable investigation of semiotic data (written, spoken or visual).” Moreover, CDA researchers attempt to make their own positions and interests explicit while “retaining their respective scientific methodologies and while remaining self-reflective of their own research process” (Wodak and Meyer 2009: 3). Miles and Huberman (1994) note that it is not the specific word, discussion, interview or document (here one could add images and sounds) that matters, but deeper meaning behind these products. Therefore processes need to be employed to reveal these meanings. For this particular study, a further relevant point is that meanings cannot be considered as standing free of external influences.

CDA is “united by its critical lens, which is focused on the ways knowledge, subjects and power relations are produced, reproduced and transformed within discourse, and is operationalized through a variety of methods to analyse texts in context” (Leitch and Palmer 2010:1195). Taking a cue from Archer, an additional point could be made that text often directs the research to the generative mechanisms that can also encourage morphostatis or morphogenesis. One of the key measures of success in critical discourse analysis lies in how effectively analysis of a given single or set of texts is

“integrated with other forms and levels of analysis” (Chouliaraki and Fairclough 2010: 217).

Chouliaraki and Fairclough argue (2010: 1214) that critical discourse analysis should be concerned with “stronger conceptual links between discourse, power and other moments of the social process that emerge as theoretical and empirical problems...as well as towards more versatile and porous methodologies that make space for novel, interdisciplinary research designs.” In their concept of critical discourse analysis they argue that the researcher should “simultaneously keep a constant analytical focus not just upon discourse as such but on *relations between discursive and other social elements*” (Chouliaraki and Fairclough 2010: 1215).

As will be seen in the chapters concerned with the three settings chosen for this study, data were collected through the focus group, interviews and hands-on sessions and have been integrated into wider contexts as they relate to the specific settings. Each setting is supported by the relevant section of the literature review and the analyses of the data are informed by layers of research existent within the literature as well as Marx’s theory of alienation. Further since CDA argues that “language-in-use is always part and parcel of, and partially constitutive of, specific social practices and that social practices always have implications for inherently political things like status, solidarity, and power” (Gee 2014: 68) CDA seems appropriate for the analyses contained in the chapters concerned with the three settings as they incorporate references to these types of issue.

Context is therefore in effect part of the process for a CDA approach and thus changes as it both influences and is influenced by events. This dovetails with the argument from Fairclough and Wodak that since “discourse is so socially consequential, it gives rise to important issues of power. Discursive practices may have major ideological effects – that is, they can help produce and reproduce unequal power relations between (for

instance) social classes, women and men, and ethnic/cultural majorities and minorities through the ways in which they represent things and position people” (Fairclough and Wodak 1997: 258). Given that, as the previous Chapter has discussed, alienation is *inter alia* concerned with power and absence of power and/or access to power, the emphasis of CDA on these aspects would be of importance in the research programme.

CDA is not without its difficulties, however. Antaki *et al* (2003) describe a number of practices that can result in the failure to develop a robust analysis of a given piece of text. These include under-analysis through the use of summary; because of taking sides; and arising from over-use of quotations or isolated quotes. Further problems are associated with the circular identification of discourse and mental constraints; using the text as a form of survey; and finally simply using the texts to spot features rather than exploring the content. The hope is that the efforts made here with regard to the analysis of transcripts and the use of critical discourse analysis, working under the umbrella of CR, will have minimised the potential pitfalls identified by Antaki *et al* (2003).

It would seem therefore that CDA, operating within an overarching research approach guided by CR, is the best way to proceed with this particular study. Having determined the general research approach to be adopted for the research, the discussion will now turn to look at the specific mechanics of data collection which will focus on PAR.

There are echoes of thematic analysis contained within the thesis. “Thematic analysis is used to identify a limited number of themes that adequately reflect the study data, by comparing and refining emerging topics” (Katsakou *et al* 2012: 1170). However, the themes covered by this research, both in terms of categories and their relationships, were derived by Marx’s theory of alienation. So rather than following the common practice where themes emerge from data analysis, the process adopted here used a set of *a priori* themes. This was necessary since the purpose of the study, as the

research questions indicate, is to examine the validity of Marx's view of alienation; that is to say the themes themselves were being researched. Accordingly, while there are similarities between thematic analysis and the analysis within this thesis, the approach adopted for this study, could not be described as following the procedures normally associated with thematic analysis.

Before moving on to discuss specific tools for data collection, perhaps this is a good moment to re-emphasise why a qualitative method (QM), rather than quantitative method (or a mix of the two) approach to data gathering has been preferred for this research. As has been noted in the literature review, a quantitative approach has been and continues to be the method of choice for those wishing to research alienation. The reasons for this are clear. Following on Seeman's and Blauner's studies, researchers believe that the creation, dissemination and subsequent analyses of data garnered from questionnaires can provide sufficient descriptions of and explanations for alienation. It has been argued in this thesis that such studies, particularly those based on Seeman and Blauner, do not seek to measure alienation from a Marxist perspective since, and this is particularly so for those concerned with workplace activity, they in effect measure satisfaction within a given context. As has been argued above in relation to job satisfaction, this cannot be a measure of alienation. The decision not to follow the quantitative data capture route was thus in part an attempt to break with the entrenched methodologies that dominate this field of study.

Secondly, the nature of the research programme meant that a quantitative approach would not have enabled any comparative analyses between all three settings.

Following on from Mills' (2002) studies on white collar work it would have been possible, difficult but possible, to carefully construct a questionnaire that drew upon Marx's theory of alienation to cover issues such as gratification obtained from work; separation from work and play; the fusion between work and play; the unity between

planning and performance of work; and the relationship between values and qualities developed in working and non-working periods. However, such a questionnaire would have had to be tailored to the specific circumstances of the ICT professionals and scholars. The problem then would have been one of comparability between the two groups: would it have measured the same thing? Finally such a questionnaire would not have been at all suitable for the SPAG activity. It is believed that the inconsistencies that can emerge in multiple settings-based research would have been compounded by a quantitative approach if applied to the three selected settings chosen.

The third reason for adopting a qualitative approach also flowed from the decision to embrace a critical realist perspective. Thus it was felt that qualitative data gathering based on interviews and groups sessions would allow for emergent properties to be more easily observed and explored. This is not to say that quantitative data of itself cannot reveal emergent properties (as is often the case of non-social science research) but in the context of studying alienation, a qualitative approach would allow for an appropriate investigation of the condition. A key aspect of this process was the attempt to see whether knowledge from the literature review could be meaningfully related to, or was at variance with, understandings from each of the three contexts.

Further, as has been argued above, the research covered by this thesis concerns Marx's theory of alienation and the categories he discussed in the *1844 Manuscripts* influenced the shape of the group sessions and interviews that generated the research data. This process fed into further reasons for choosing a qualitative approach which were linked to the intangible nature of the topic itself and QMs allow for a greater exploration of underlying motivations and sentiments thereby discovering "findings not arrived at by means of statistical procedures or other means of quantification" ([Strauss and Corbin 1990](#):. 17).

3.3 Participatory Action Research (PAR)

3.3.1 Introduction

The sections immediately above have provided a justification for approaching this research by linking CR and critical discourse analysis. The next challenge was to adopt a practical way of working supported by a range of relevant tools that would allow for the generation of appropriate data as well as recognising the need to avoid, as far as is practically possible, creating environments that generate alienation. Miles and Huberman (1994) and David and Sutton (2011) identify a number of options available for undertaking qualitative research which include social anthropology and collaborative social research. While approaches such as these have their merits, it was felt that a method that included the researcher and the participants working in a close relationship would be the best direction of travel for this study particularly if it resulted in outcomes relevant to all concerned. Thus PAR was selected as the most appropriate method to employ. The following discussion provides detailed reasons for this decision

3.3.2 PAR Theory

Denzin (2009) argues that social research is underpinned by theory, methodology, research activity and “sociological imagination” (Denzin 2009: 5). The last element is described as the ability to move from one perspective to another thereby developing an overarching view of society and various elements. However, in order to access various perspectives, interactionist research theory requires the researcher to become absorbed into the experience of his or her subjects. Researchers seek to be regarded by the participants in the research as an ally, trustworthy and capable of sharing and articulating any aspect of these participants’ world view. This perspective echoes the approach and values contained within the PAR methodology.

PAR has developed out of action research (AR) and in their excellent overview of AR, Dickens and Watkins (1999) identify the core features of this method as being a continuous, cyclical process of research and learning; not seeking to impose strict

boundaries on the experimental context; using results to influence subsequent behaviours; treating participants as objects; and researchers identifying “the need for change and the direction that that change might take” (Dickens and Watkins 1999: 132). PAR builds on these core characteristics. Baum *et al* (2006) note that PAR is essentially based on critical theory and constructivism, the view that knowledge and meaning arise from experiences and can employ a range of methods of both a quantitative and qualitative nature. As with traditional action research, PAR researchers can intervene in the research arena rather than simply withdrawing after completion of the research leaving the situation unchanged.

The genesis of PAR can be located in postcolonial, Marxist and feminist thought (Hubbard 2009, Reason and Bradbury 2001) and seeks to move beyond observation and subsequent analysis, and to engage in social change. As such, PAR has been described as a “major epistemological break with mainstream research traditions” (Hubbard 2009: 433).

Although a relatively recent addition to the research toolbox, PAR has developed a rich tradition within social sciences for investigating issues of exclusion, marginalisation and disadvantage and requires collaborative research in which participants actively engage in, and possibly help shape, the research agenda. The collective reflection of participants is highly valued in this methodology as is their inclusion in the planning, action and observation phases of a research project. Fournier *et al* (2008) argue that the goal of PAR is to move beyond suggesting changes that arise from research to “incorporating methods for translating the knowledge gained directly into practical decisions and/or practicable courses of action” (Fournier *et al* 2008: 2).

Van de Velde *et al* (2009) distinguish the four basic tenets of PAR as revolving around participation, knowledge attainment; empowerment and social change. A basic premise of PAR is the discovery of voice (Fournier *et al* 2007) by adhering to the view

that participants are capable of providing and projecting their own voice rather than have the researcher act as spokesperson for their concerns. Here participation becomes part of a “joint venture in which decision making, planning and responsibilities are shared among participants” (Van de Velde *et al* 2009: 1296). Baum *et al* (2006), following Crotty (1998), further argue that the “critical edge” provided by critical theory is necessary for the effective application of PAR practice which must also seek to move beyond interpretivism to focus on “authentic accounts of lived experience” (Baum *et al* 2006: 856).

Further, this approach has been strongly favoured by researchers interested in using of ICT across a range of spatial and societal situations. Good recent examples here are the investigation of African women and ICT (Buskens and Webb 2009); ICT-enabled rural microeconomic development (Rhodes 2009); ICT professional development for teachers in online forums (Prestridge 2010); and participation in e-home healthcare (Jansson *et al* 2008). These examples indicate there is a body of experience upon which to draw in undertaking this research.

There is however the issue associated with the relevance of the outcomes arising from research using PAR since the researcher ceases to be an impartial observer, becomes involved with the subject of the research and thereby directly influences events. As Brydon *et al* argue (2003: 25) the “concerns of conventional researchers about objectivity and controls are replaced in action research by concerns of relevance, social change, and validity tested in action by the most at-risk stakeholders”. They also contend that PAR also questions the separation of theory production and theory application and that the processes seeking to establish the validity of outcomes involves the participants of the research.

The belief that there may be doubts about the veracity of findings from research using PAR is in part strongly influenced by the positivist tradition. However, as has been

discussed earlier in this Chapter, the very notion that the researcher can be an impartial observer has been questioned by many other well respected, and often used, research perspectives. In many ways, research has moved on from the constraints imposed by positivism. Indeed some social scientists argue that objectivity is impossible to achieve (Phillips 1987). The problem of the relationship between objectivity and qualitative research continues to be a source of consideration (Lichtman 2013). The issue is then to ensure that sufficient rigour has been brought to the research to realise the results have credibility, dependability, conformability and transferability (Guba and Lincoln 1994).

A critical realist perspective would also add that results are the nearest approximation to reality and are therefore by implication fallible. Recognising the potential pitfalls of a research programme using PAR is of itself the first step towards applying appropriate rigour. This, allied to the demands inherent in a critical realist approach, aided by CDA, should enable the study to proceed with a strong degree of scholarly integrity thereby providing results that will be of importance in the subject area.

The literature review, particularly in discussing the contributions of Seeman and Blauner, highlighted to need to ensure that research into alienation does not lapse into research primarily concerned with satisfaction of a given context, such as occupation. Researching alienation demands an appreciation of movement and influences at a deeper stratum than, say, job satisfaction. The review also indicated that from a Marxist perspective an alienated condition need not always be apparent to those experiencing alienation because it can seem part of the “natural” order of things. In the language of CR, alienation can reside in the real layer not readily recognisable or observable. Researching alienation therefore requires a set of tools that can enable expressions of an alienated condition to move through to the actual level thus allowing for empirical observation. This study has chosen to use a qualitative approach embracing CR, PAR

and CDA because they appear to provide a range of options allowing for the generation of activities that encourage expressions of alienation to bubble to the surface. As will be seen in the analyses of the three settings chosen for this study, adopting these research strategies and trying to fashion them into whole approach, enabled access to apparently contradictory experiences and to facilitate the exploration of these contradictions as well as provide an explanation for their existence. Marx's theory of alienation signposted the way to using CR, CDA and PAR.

That being said, it is acknowledged that PAR was not utilised in full in all of the three settings. As will be seen, it was particularly effective in the setting associated with end-users hands-on sessions. It was employed to a degree in the setting concerned with the ICT professionals since it resulted in the production of a briefing paper widely circulated within the trade union to which these professionals belong. PAR was not really used in the setting associated with the scholars although a paper based on the study was presented at an Ethicomp Conference. The limited use of PAR in this study for two of the settings may raise concerns about the extent of the data collected for the study. However, it should be noted that the validity of qualitative research does not necessarily depend on an extensive number of interviews for data collection. Mason (2010) in his study of the number of interviews undertaken for PhD research found that the mean was 31 and the median was 28. Therefore, the number of interviews for this study, particularly when allied to the research undertaken that did use PAR, is not that abnormal in terms of its range.

3.3.3 PAR Tools

As can be seen from the above; PAR requires that participant involvement must mean reaching beyond that experienced in more traditional research activity. The tone, style and manner of decision making adopted at the start of the research are critical for engendering a positive attitude towards PAR from participants. It follows therefore that

since participants should be involved from the start they should be able to have a meaningful influence over the choice of research tools to be used. As a result it is appreciated that the methods outlined in the following discussion may be more or less employed as the research proceeds.

Moreover, if the spirit of PAR is applied in practice, and as the research is concerned with ICT and alienation in different contexts, the specific research methods and/or priority of method may well vary since the participants in the different contexts could well express difference preferences. This may of course lead to difficulties within the research and accentuate those areas of concern that attend qualitative research, namely reliability, validity, quality and generalisation (Collingridge and Gantt 2008). Nonetheless, as PAR offers such a strong sense of ownership to the participants, it is hoped that it will help to make explicit feelings of alienation and identify action that can minimise feelings of alienation; because of this major strength, it was felt that the challenges and problems inherent in PAR for this particular research are worth confronting and solving.

One element of the research involved a close working relationship with members of the SPAG. This has taken the form of a number of 2 hour hands-on sessions which ran from January 2010, the objectives of which were the outcome of pre-session discussions. Consequently, while the researcher was intimately involved in forming the shape of the sessions, the priorities, content and purpose of each session was driven by the SPAG participants. This is a relatively unusual, but not unique, approach to research in this area but it proved to be effective in focusing on alienation. Further discussion of this activity can be found in later Chapters.

3.3.4 In-depth interviews

In an interesting review of information systems qualitative research, Myers and Newman (2007) note that the qualitative interview has been extensively employed in a

wide range of research contexts and is considered one of the most important data gathering tools for qualitative research, but it is “fraught with difficulties” (Myers and Newman 2007: 3). They recall that there are three types of interview namely: the structured interview in which the questions are completely scripted; the semi-structured interview in which questions are loosely or not at all structured; and group interviews which can either be structured or semi-structured. They also note that the following difficulties can be identified in all three interview contexts: certifiability of interview, lack of trust, lack of time, level of entry, ambiguity of language, constructing knowledge, and interviews going wrong. In their paper, Myers and Newman (2007) advocate a dramaturgical method to minimise the adverse affects arising from the foregoing problem. While the dramaturgical approach has a number of merits, it does pose problems for interviews undertaken online especially when people cannot see each other; in the event there was no need, in this study, to have recourse to such techniques.

The research undertaken by Myers and Newman (2007), flags up a number of key concerns associated with the qualitative interview which can be fore-grounded in sharper relief where the overarching research process is inspired by PAR. Nonetheless data gathering by way of the qualitative interview appears to offer appropriate mechanisms to facilitate effective exploration of the research theme but care was needed to ensure that the principles and priorities of PAR, such as minimising social dissonance, representing various voices, flexibility, and confidentiality, were not undermined. In-depth interviews have been employed across all the elements that form this research.

3.3.5 Group interviews

Group interviews are designed to provide in-depth interviews involving a homogeneous set of between 6 and 12 participants (Flick 2009). Smithson (2008) neatly summarises

the issues associated with focus group interviews which can include problems associated with participant-researcher interaction, interaction between participants, group size, timing and spatial concerns, moderation, recording, and analysis of focus group data. Being aware of these issues will help develop appropriate ways of working that will minimise their adverse effects. Despite the problems associated with focus group interviews, Smithson argues that focus groups have a number of strengths such as enabling participants to discuss and develop their ideas collectively on the research topic, participants are able to articulate their “own priorities and perspectives” and it allows the researcher to employ and observe a wide range of interactive techniques (Smithson 2009: 368). Flick (2009) argues that group interviews are resource low, yet data rich, and can point in directions that perhaps results from the single interview can miss. Blumer goes further by believing that the group discussion “will do more to lift the veils covering the sphere of life than any other device” (in Flick 2009: 191).

However, as Flick (2009) and Smithson (2009) both recall, there can be problems with this technique such as the dominance of discussion by a single or small group of participants; internal group dynamic; researcher mediated interventions; and an input of significant organisational effort. Flick provides a range of good advice on how to avoid and/or solve such as difficulties.

3.3.6 Other Tools

The above tools generate detailed information on a small number of participants and can be supplemented with an array of other tools that will allow the participants to express themselves on a range of social or personal issues. These techniques can include keeping logs of activities, documenting their responses to ICT, text, audio recordings, photographs or drawings; using feedback forms, visitors’ books, log books, and suggestion boxes. As the data collection progressed it became apparent that not all of these techniques were needed in this study but it was helpful to be aware of their

possible use and the options they offered. Having discussed the specific tools available for a study of this nature, the following section looks at some of the issues associated with selecting the groups investigated during the study with reference to their relation to wider populations.

3.3.7 Resonance

The three settings selected for this research, and the numbers involved, formed part of an attempt to develop an approach that sought to focus on resonance through “transferability and naturalistic generalisations” rather than statistical generalisation (Tracy 2012: 845). Thus the aspiration is that the three “stories” that comprise the bulk of this thesis will lead to transferability by connecting with the readers and evoking within them “the idea that they have experienced the same thing in a different arena” (Tracy 2012: 845). Naturalistic generalisation will be achieved, it is hoped, by readers reflecting on how the stories of alienation within the thesis impact on their understanding of their own experiences thereby, potentially, influencing and, it could be argued, improving their practice. There is a further reason for choosing three groups is that such an approach provides for triangulation as it relates to data validity.

Having established the general thrust of the research method; identified the specific tools to be used; and considered issues associated with resonance, the next section will now look at how the research developed.. the approach taken to analyse the data generated by the study.

3.4 Stages in the development of the research

This section will open by looking at the background to how the research was developed and will then go on to provide details on the various phases and stages of the research itself. As will be seen by Figure 3.1 on page 106, the genesis of the study arose from a number of influencing factors emanating from a various range of experiences and prior knowledge. A decision had been taken in 2003 to embark upon research on the theme

of alienation and ICT for publication as a research paper but, for a number of reasons, the ideas for this research were not able to be developed at that time. However, the opportunity for undertaking a more ambitious form of research arose when my employer encouraged me, as part of my staff development process, to register for a part-time PhD. Since I had presented papers at various Ethicomp Conferences, it seemed appropriate to first approach the unit at DMU to see if they would be interested in supervising the research. Fortunately, both Professor Simon Rogerson and Dr Ben Fairweather agreed to be involved with supervision.

Figure 3.2 indicates, as one would expect, the strong interactive relationship between the conceptual and operational activities involved with the research. Figure 3.3 shows the research activity for the setting concerned with age and ICT indicates the fluid nature of the work undertaken for this setting with data collection and analysis being both independent of yet and influencing each other. The figure also highlights to on-going referencing back to the literature.

Figure 3.4 covers the setting concerned with scholars and ICT and outlines the development of the research activity. It shows, *inter alia*, the use made of Marx's theory of alienation to construct the interview templates and subsequent codes for data analysis.

Figure 3.5 shows the development of the research programme as is related to the setting covering the ICT professionals and shows the relationship between the focus group session and the individual interviews. It also shows how the emergence of issues arising from the interviews required a further interrogation of existing literature. A further aspect covered is the circulation of the written presentation of the research to participants, its subsequent refinement and publication within the trade union movement.

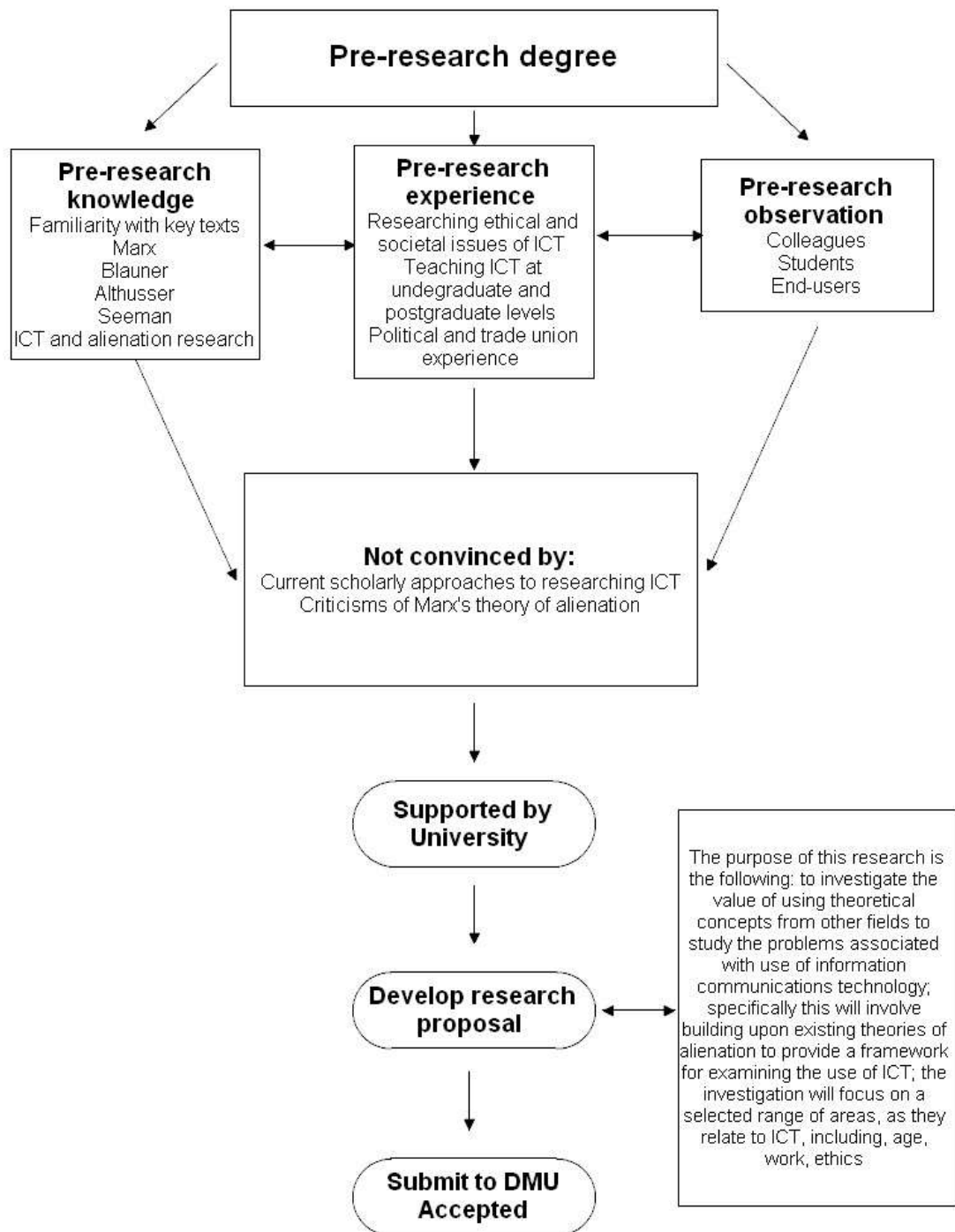


Figure 3.1: Pre-research activity

The following figure shows the link between the conceptual development of a research study and how this relates to the actual activity associated with the research undertaken for this thesis.

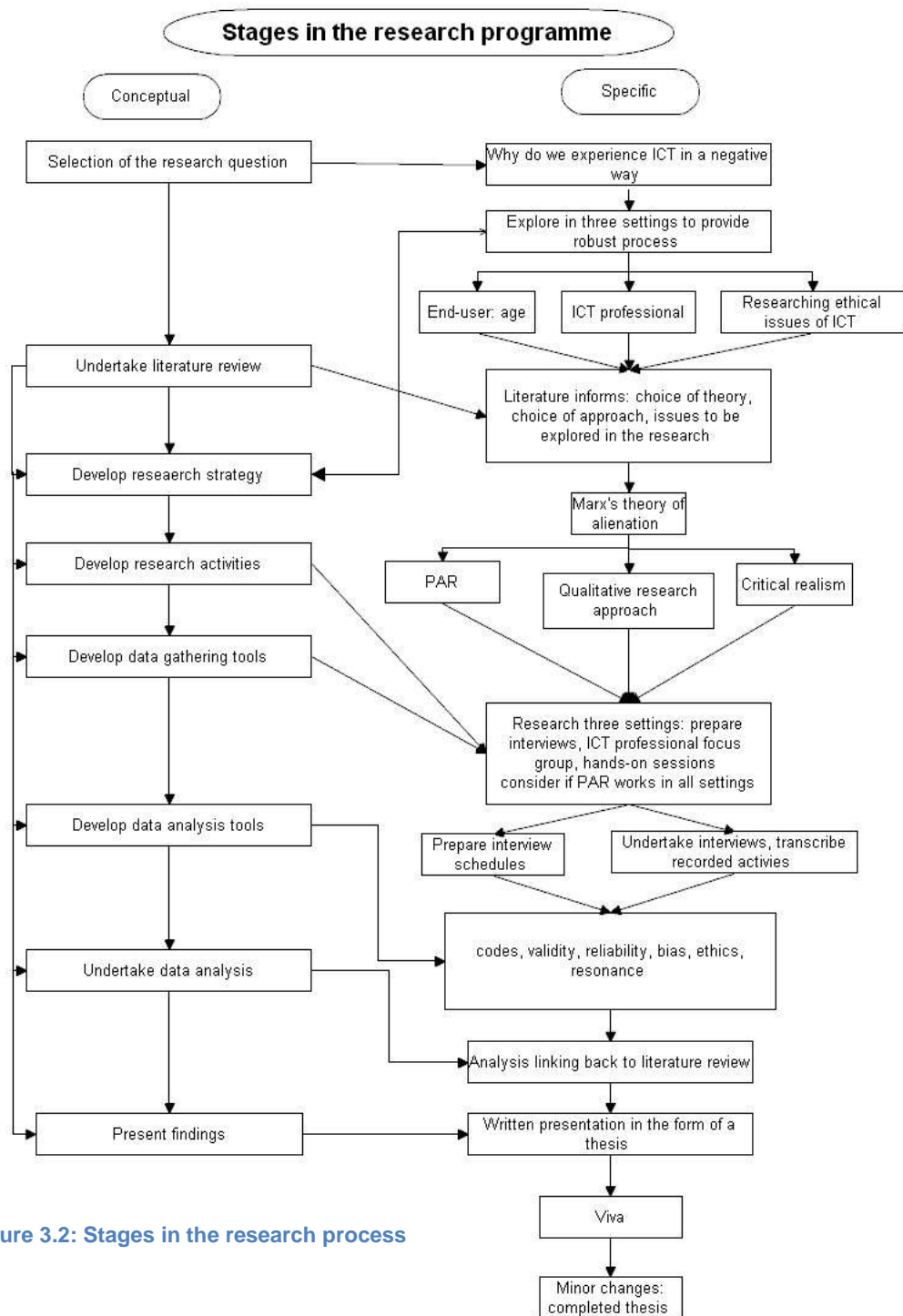


Figure 3.2: Stages in the research process

The following figures show the various stages involved in undertaking the research for the three chosen settings.

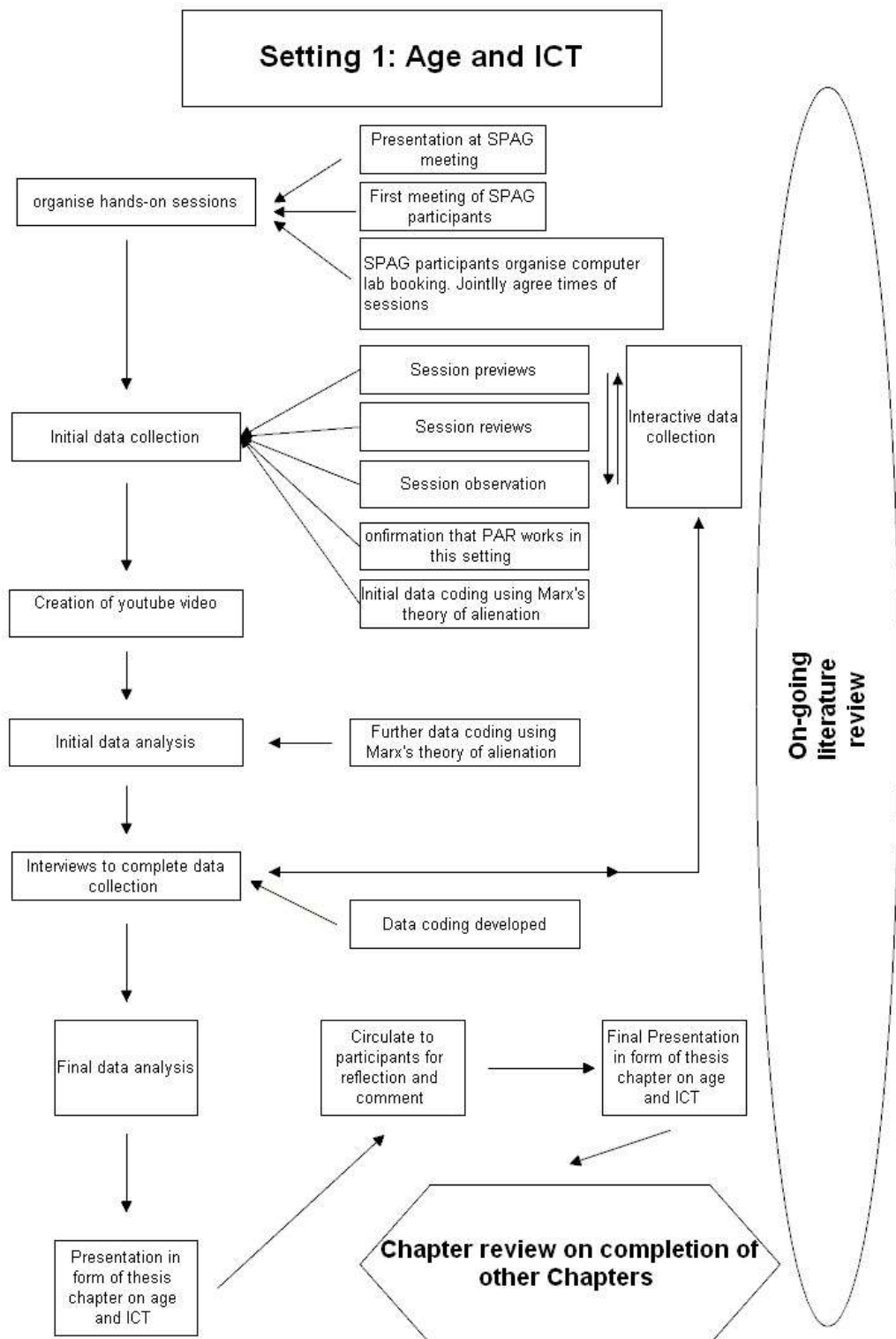


Figure 3.3: Stages in Setting 1 - Age and ICT

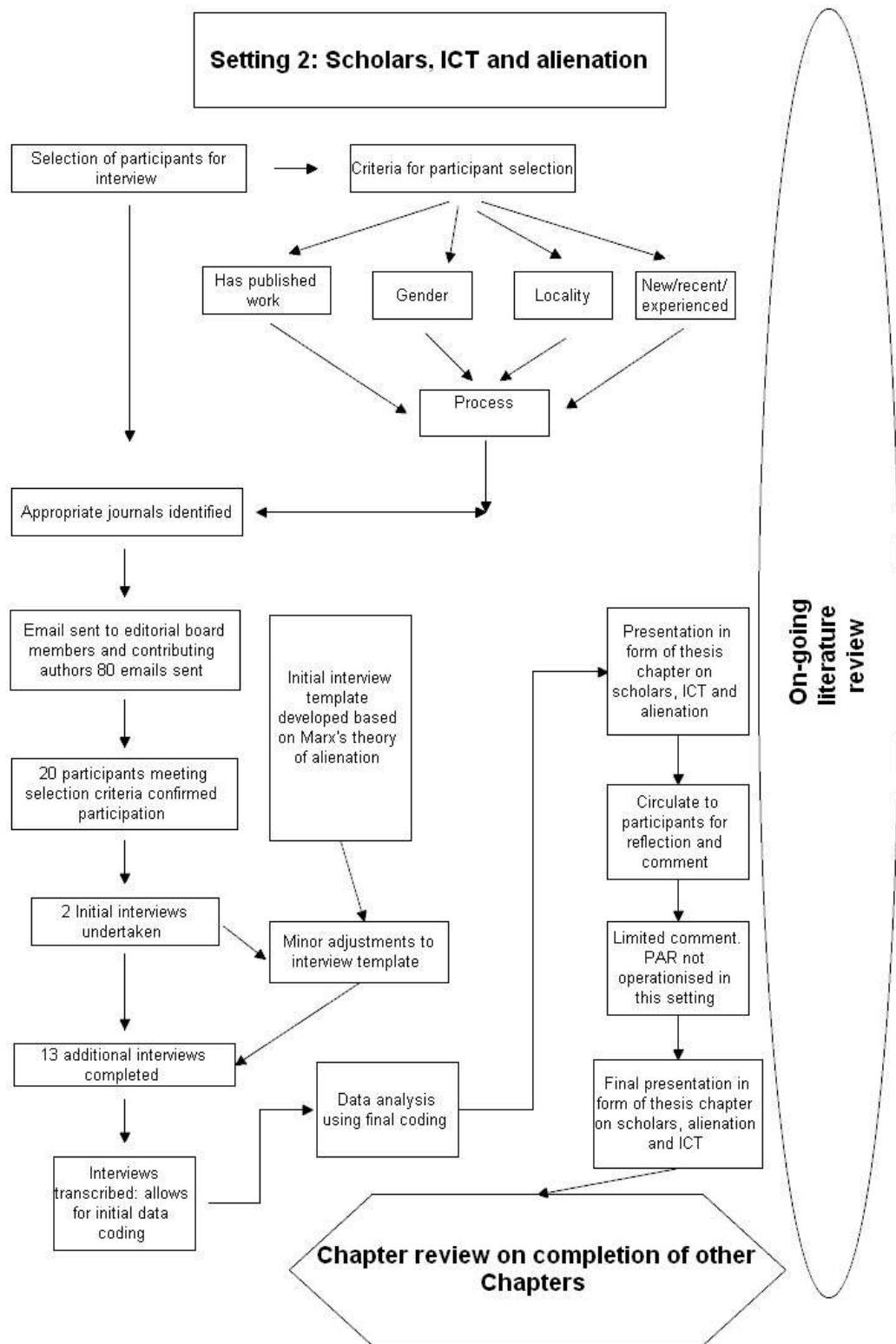


Figure3. 4: Stages in Setting 2 - Scholars, ICT and alienation

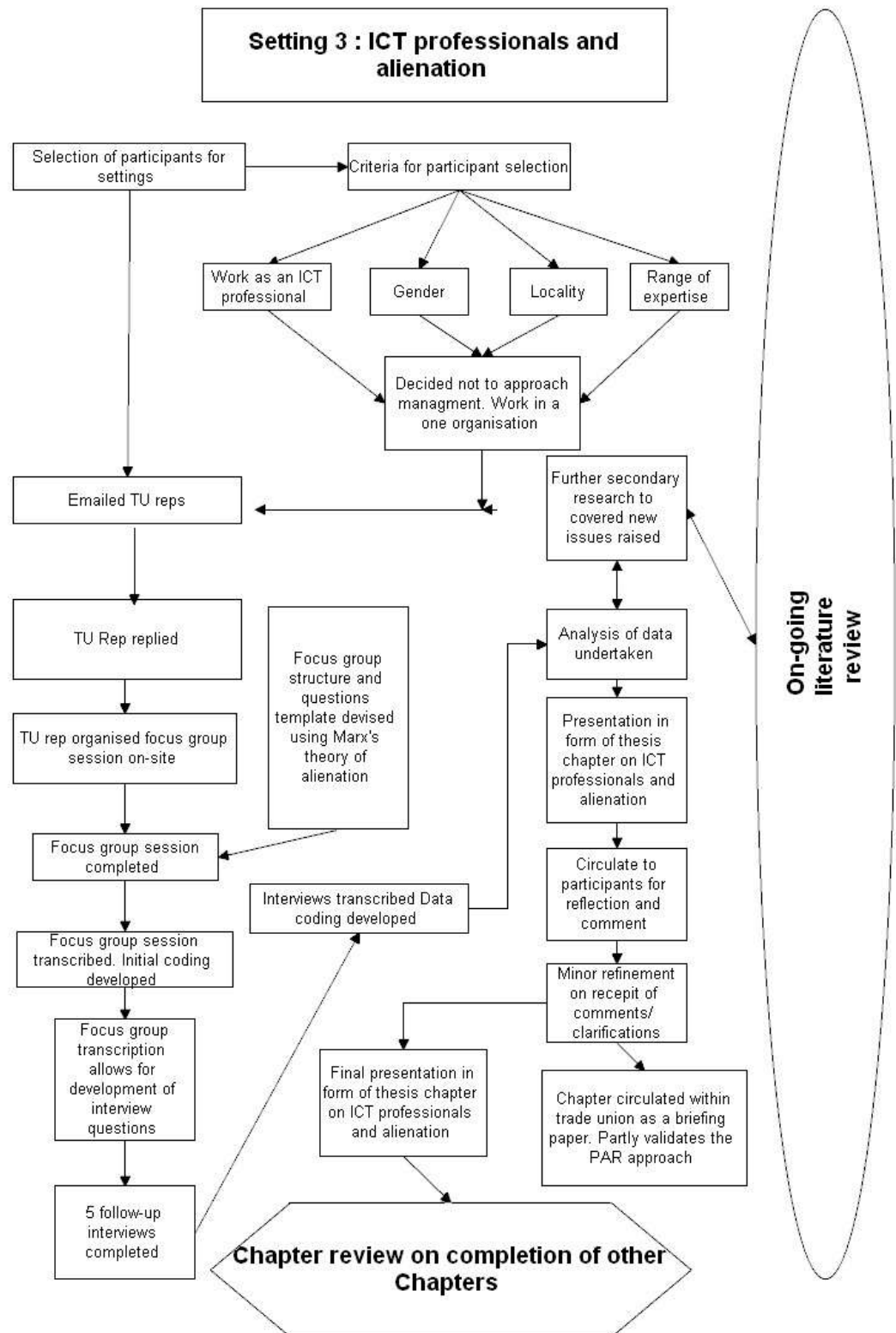


Figure 2.5: Stages in Setting 3 - ICT professionals and alienation

Having outlined how the research developed, the next section will describe the approach taken to analyse the data generated by the study.

3.5 Approach to data analysis.

As is to be expected the analysis of the data was very much linked to the decisions taken concerning the general approach adopted for the study. Thus, when it came to analysing the data that form the basis of this thesis, the technique applied derived from linking critical discourse analysis with CR thereby creating a process that sought to delve beneath the superficial meanings within, for example, a given interview, to draw out contradictory sentiments and to reveal commonalities and/or inconsistencies between interviews or other texts..

While the nature of the data was such that it did not need a coding within Nvivo because the study did not involve the review of a wide range of documentation such as reports, minutes of meetings or completed forms, it did require a constant re-examination of the data to reveal their character and relations. The data codes were developed by two methods the first being a deductive approach derived from Marx's theory of alienation. Codes developed on this basis were produced for each of the three settings as well as codes deriving from Marx's theory of alienation as described the *1844 Manuscripts*. The second approach to coding draw upon the emic perspective which allowed for the incorporation of the participants perspectives to be incorporated into the coding structures.

As was argued in Chapter Two, Marx's theory of alienation draws the strength of its explanatory power by relying, indeed insisting, upon the relationships between a number of elements; it is its interlocking completeness that requires research to adhere to a recognition of crucial relationships. Thus it was necessary when developing the data codes to try and show the relations between the various elements. As a result, the coding for each setting has been presented in the form of flowcharts in an attempt to

show these relationships. The flowcharts are included as appendices (G-N) to the thesis.

In developing the codes the overall purpose was to strive for a seamless process joining the research questions to the approach adopted for the research to generate data; then developing appropriate codes that would aid the subsequent analyses of those data. In effect a blended approach was developed and adopted for the analysis which, while customised for this particular study, could be applied in research of a similar nature. A set of descriptive codes has also been included as an appendix. It is appreciated that in different research contexts which might involve the analyses of many kinds of documentation and/or multiple researchers, a different approach to issues such as coding would be required in that software such as Nvivo could be employed. Having looked at issues associated with method, this Chapter will conclude by looking at the ethical aspects of the research.

3.5 Research ethical considerations

As Fisher and Anushko (2008) note, social research needs to recognise and meet the ethical standards increasingly demanded by society. In this context, an initial step must be to obtain formal approval from an appropriate Ethics Research Committee. In their discussion however, Fisher and Anushko (2008) argue that such formal approval is but the first step and the researcher needs to be aware of issues such as informed consent; conflict of interest; cultural equivalence; and monetary incentives. The last issue is not of concern for this study and the first has already been addressed by the production of appropriate documentation. However, it is considered that conflicts of interest and cultural equivalence merit further discussion.

On one level there is no conflict of interest since, apart from support from the University of Westminster, no funding has been provided by any organisation, commercial or otherwise. Thus there is no external organisational or institutional imperative or

pressure influencing the goals of the research; the methodology to be followed; the results of the research; the ownership of the results; and, hopefully, their eventual publication. At a deeper level however, a possible conflict of interest may have arisen between the needs of the researcher from the requirement to complete the research and submit for examination, and the objectives of the research participants. This was particularly so for the setting involving the pensioners from South East London. There is an imperative for the researcher to disengage from the activity whereas for the participants the activity may be viewed as an ongoing engagement with the theme. Awareness of this problem at the outset would help to develop mutually acceptable and appropriate exit strategies for the research.

Cultural equivalence needs to be addressed within this project to ensure that the results can be considered robust and can be generalised. This requires sensitivity to possible differences in terms of aspects such as language, custom and situation that may vary across different cultural settings. Thus interview techniques and focus group activity as well as observation needed to be specifically tailored to the particular context.

A further ethical issue arising from the collection of data concerns guarding the confidentiality of the participants given that all interviews and parts of the hands-on ICT training sessions were to be recorded for later analysis. This was addressed by asking each interviewee before the interview if they agreed to be recorded; at the same time it was stressed that their anonymity would be respected in the final write up of the settings. As will be seen, Chapters 5-7 indicate an unconditional adherence to this commitment. For the hands-on sessions and interviews, SPAG members agreed that first names could be used in writing the thesis. Having described the approach adopted for this research and outlined the ethical considerations that need to be addressed; the discussion will now turn to provide a description of and the reasons for choosing the settings selected for and the participants involved in the study.

Chapter 4: The case studies: Description of the selected organisations, participants and interviewing processes

4.1 Introduction

As is to be expected, the nature of this PhD research informed the general selection of both the organisations and participants. As was discussed in Chapter 1.2, and 1.3 concerning the research questions and aims, the task was to engage in a conversation with participants experiencing information communications technologies in a variety of very different contexts and in different ways. Thus it was decided to select three groups of participants who experience ICT in very different ways. The work of the ICT professionals is directly related to the installation of ICT systems; the scholars' work is concerned with researching the ethical and societal implications of ICT; and finally the pensioners provided a group of end-users of ICT. By selecting these settings the objective was to provide a balanced range of situations to test Marx's theory of alienation. Specific detail on why and how the groups were selected is contained in the following discussion. The choice of settings also influenced the development of research questions 1, 2 and 3.

This Chapter opens by outlining the general and specific reasons governing the selection of both the specific organisations and participants used in this research. It then goes on to describe the nature of the subjects of the research. It is anticipated that there may be some questions associated with how representative the chosen groups of wider populations are. These issues are addressed in Chapter Ten which contains a critique of the process described below.

A point to note here is that the structure of this discussion and indeed the thesis as a whole does not follow the sequence in which the data were collected. The first set of data collected concerned the Southwark Pensioners' Action Group (SPAG); the second set was the ICT professionals and the data collection ended with the interviews with the scholars.

4.2 The Study Locations and Selection of Participants

This section describes those factors influencing the decisions that determined the choice of the specific organisations and participants that comprised the subjects of this doctoral research. It opens with a discussion focused on ICT professionals. It then moves on to consider the academics approached for the study and concludes with a discussion concerning the age setting.

4.2.1 Work and information communications technology

This section will outline the rationale for and the processes related to the selection and involvement of participants for this part of the study. The choice of the organisation for the first setting/story presented in this thesis was informed by the desire to examine the relationship between work and ICT and alienation and to provide a contrasting experience to the research undertaken for the other settings. Further as was discussed in the literature review, ICT professionals have rarely been featured prominently in research concerning ICT and alienation. It was also noted that such research such as it is, tends to be of a quantitative nature drawing upon the problematic approaches adopted by Seeman and Blauner. By making ICT professionals an integral part of this study the purpose was to help address these weaknesses. It was decided to target medium-to-large-scale ICT companies in the United Kingdom for three reasons. An organisation of this nature would be likely to employ ICT professionals across a range of particular skill sets. Secondly, there would be a much greater possibility of finding, within the research time frame, a suitable group of subjects. Finally, the geographic location would enable reasonably easy access to the potential participants.

These aspects were considered important because as well as enabling access to a pertinent sample, they would also facilitate the successful completion of the data gathering (Miles and Hubermann 1994: 34). The challenge was to find a group of participants who would be prepared to discuss their roles within an organisation in a group interview; who would feel comfortable in such a discussion; and some of whom

would be prepared to be interviewed on an individual basis. Finding such a group, it was thought, would prove to be a challenge in itself. One possible route would have been to approach the Human Resource departments of a number of medium-to-large scale organisations to see if they could put me in touch with ICT professionals. This method was rejected for three reasons. The first was that it was considered to be an inefficient way to make contact with the target group since it depended on a number of factors beyond immediate control. Essentially, such an approach would have relied on HR departments having the time and commitment to provide contact names and email addresses and there would be no guarantee that the resulting contact group would show sufficient interest in the research programme or indeed have an internal coherence to facilitate a free and frank exchange of views in a group interview.

The second reason this approach was rejected flowed from the experience of the work undertaken for the SPAG study which indicated that the use of an existing internally coherent network cleared away many of the problems associated with establishing group confidence. The final reason for rejecting this way of approaching ICT professionals arose from the nature of the research project itself and the attempt to use PAR. This meant that there was a strong impetus for a “bottom-up” approach to contacting the target group for this phase of the research. Surprisingly, rejecting more formal approaches to ICT professionals via management structures opened up extremely fruitful avenues for developing contacts which proved to be very efficient in providing an appropriate target group.

An email was sent to union branch organisers (as opposed to full-time officials) of trade unions representing ICT professionals outlining the nature of the research programme and asking if they knew of any people who would be interested. Within a short period of time, one of the organisers had circulated details of the project to a number of contacts and was able to put together an interested group of 10 ICT professionals. Furthermore,

this group consisted of participants who all worked for the same organisation and already knew and worked with each other, thereby meeting some of the critical criteria identified above for group participation. The union organiser was also prepared to convene meetings of this group. It appears that adopting an approach influenced by PAR resulted in quick and effective access to one of the target groups required for this research.

A further advantage of this approach became evident only much later when, for a number of reasons, there was a year's break in the research activity. It was very easy to re-establish contact with this group and to continue with discussions in the form of individual interviews. The positive experience linked to the involvement of ICT professionals in this project provided a strong motivation for the next phase of the research; that concerned with academics and ICT. The issues requiring resolution during this phase are the subject of the following section.

4.2.2 The academics research the ethical and societal implications of ICT

It could appear that at first sight, the selection of this target group does not fit neatly with the theme of the research. However, it is believed there are good reasons justifying this choice of participant. As will be seen from Chapter Six, this part of the study investigated key characteristics of the research process experienced by this group of participants. The reason for this was twofold. The first was to undertake the work in an apparently benign environment where it appears that scholars seem to have a significant measure of control over their activity and where participants are highly motivated by their work because of their strong commitment, perhaps for some dedication, to the subject area. Under such conditions, any weaknesses in alienation theory would become apparent. The second reason was directly connected to the nature of these scholars research in that they investigate the ethical and societal implications of ICT. If it emerges that the way they undertake and publicise their

research has flaws arising from alienated circumstances, there are implications for researching ICT itself. Thus it is believed that the choice of this target group and the approach adopted for Chapter Six have direct relevance for any consideration of alienation and ICT.

The selection of the participants for this part of the study arose from the attempt to engage with a number of types of participant: those who have had a long involvement in the area; by contrast those who could be considered relative newcomers to the field; and finally the need to obtain a spread by way of gender and locality. It was felt that the most effective way to contact potential interviewees for the first group was via the editorial boards of journals since membership of such boards indicates a proven track record in the field; points to participation in a relatively stable academic network; involves knowledge of current developments in the subject; and, hopefully, signals an appreciation of the scope and history of ethics and ICT. Two further advantages of using editorial boards as a source are that they do have a good spread in terms of nationality and gender of participants.

Finding a selection of potential interviewees for the other groups was more problematic and time consuming in that it involved reviewing articles in journals and/or papers to conferences as well as approaching research units to identify those researchers whose contributions to the subject area are relatively recent, did not reside in any one location and were of different genders. It was also recognised that a Eurocentric bias within this setting may undermine the possibility of generalising any following analysis and it was decided therefore to seek participants from a range on continents. As will be discussed, in Chapter 4.3.2, although scholars from Asia had agreed to participate in the study, because of logistical reasons, it was not possible to for them to be interviewed.

4.2.3 Age and information communications technology

The challenge for the research task focusing on age, alienation and ICT was to find an organisation that would be prepared to participate in the research from a PAR perspective; was prepared to commit to the research programme for an extended period; was interested in discussing at length the issues covered by the research; and would undertake an activity that would provide a rich source of data. The specific choice of the Southwark Pensioners' Action group (SPAG) was driven by a number of favourable factors.

Being based in Southwark, SPAG was local and it had, at that time, easy access to premises containing a purpose built computer suite with eight networked desktop computers. It has a membership exceeding 100 members and holds regular monthly meetings on a range of topics and thus has an internal coherence in terms of structure and mutual support. It is an outward looking organisation that actively campaigns on both national and local issues as they relate to people receiving a state pension. For the researcher, the significance of working with a group like this is that it helps avoid the problem that Forsey describes as "wrenching people out of their social milieu" (Forsey 2012). It also helps promote and facilitate communication between participants (Robinson 2012). The choice of SPAG for the third setting was informed by the need to research a setting that was in contrast with the other work-based settings and one that enabled an investigation focused on end-users. In addition, there was a motivation to engage in a supportive, collective, environment that would facilitate an exploration of the idea that certain conditions could impact on alienation. The choice to adopt PAR, as far as was possible in the research, also influenced the decision to use SPAG.

The administrative infrastructure of SPAG draws on the use of ICT with many of the elected officers having an albeit limited expertise in ICT. In addition it has many members with little or no experience of ICT. SPAG therefore offered the potential of

providing a group of people with varied ICT skills but within an overall supportive environment. This approach is a familiar technique within PAR and has been used in very similar circumstances to those described here (Kindon *et al* 2007:135). This factor was seen as important given the issues the research sought to explore.

4.3 Nature of the chosen organisations and participants

Having outlined the general approach adopted to identifying and contacting participants in the research, the discussion will now focus on fleshing out the nature of the organisations or networks with which the participants are connected and will open by looking at the ICT professionals, move on to the academics and will conclude with SPAG,

4.3.1 ICT professionals

The ICT professionals were all employed by a multinational ICT company with over 150,000 employees worldwide providing a range of services to a wide spectrum of organisations by size and sector. It estimates that its customers are to be found in over 100 countries and is ranked in the top ten of computer manufacturers. The company therefore comprised of a workforce that would cover a number ICT professionals that should, if Marx's theory of alienation is correct, exhibit indications of alienation. As with similar companies, it offers a range of services including outsourcing facilities, database management, and the provision of servers running on various platforms. Its customers include large multinational enterprises, governments and public sector organisations. As with similar organisations, its web pages emphasise a commitment to corporate social responsibility and green computing. As part of its corporate social responsibility programme it has sought out partnerships with non-profit making organisations. At the same time, because of the nature of the industry, it has to proclaim itself to be innovative and seeks to attract customers with its reference to implementing ICT systems that can anticipate developments in the sector.

A further structural characteristic of this type of organisation is the allocation of work between separate divisions so that each main economic centre and service may well function in a semi-independent manner within the overall umbrella of the parent company. As with many enterprises in the sector, this company has been adversely impacted by the ongoing economic crisis and seeks to implement a range of strategies, including off- and near-shoring and expanding the internal market. The economic crisis has provided an additional thrust to trends already evident such as the commoditisation of its products which has in turn further accelerated deskilling of the ICT professionals. Participants for this part of the study included those from a wide range of activities associated with ICT such as project managers, database software engineers, asset administrators, system design and development engineers, risk management experts and quality control specialists. The group was a mixture of women and men with ages ranging from mid-30s to early 60s. As has already been mentioned, all of the participants were involved with their trade union and all described themselves as being experienced users of ICT. Mention has already been made of the internal coherence of this group and that taken together with the range of skills covered, its location in the IT industry, its composition in terms age and gender, and finally its availability, made this group a suitable focus of study for this part of the research.

Having discussed the merits of the ICT professionals as a group worthy of study, the discussion will now shift to consider the composition of the second group concerned with this research, the ICT academics.

4.3.2 ICT ethicists and academics concerned with ICT and society

As has been mentioned above, as with many areas of activity involving academics, those involved with ethics and/or the societal impact of ICT, tend to form part of networks often clustered around journals such as *Ethics and Information Technology*, the *Journal of Information, Communication and Ethics in Society* and the *International Review of Information Ethics* or events such as the Ethicomp and the ICTs and Society

conferences. These journals and conferences are themselves often based on units located in academic institutions such as the Centre for Computing and Social Responsibility at De Montfort University, UK; the Department Of Communications at the University of Pretoria; and the Institute of Philosophy of the KU Leuven, University of Leuven, Belgium. On occasion, as with the 3TU Centre for Ethics and Technology, the research centre can be formed by two or more academic institutions. The same can be said of the growing body of academics interested in the more general impact of ICT on society. While there can be a significant overlap between the these two broad areas, that is research concerned with ICT ethics and that focused on the societal impact of ICT, the relatively recent explosion of research in these areas, as witnessed by the breadth and depth of topics covered by conferences such as Ethicomp, means there is a much wider pool of people to approach for research of the type covered by this study, than previously had been the case. This is especially so for researchers who are new to the field.

Of the 80 people approached for interview, 20 agreed to participate in the study with eventually 15 participants being interviewed. It was not possible to interview the others because of busy schedules, diary clashes or problems relating to time zones. The 15 participants, 7 of whom were women, were spread across four continents: the Americas, Europe, Africa and Australasia. Within the group, 5 could be described as having a significant longevity in researching and teaching the field; 4 could be described as having a medium range involvement in the subject in terms of research and publications; and 6 could be described as coming relatively recently to research in the area and having made recent contributions to discussions in the field. In terms of interest, 6 could be described as being directly concerned with ethics and ICT while the others are researching areas such as ICT for development (ICT4D), ICT and socially

organised work practices, and more broadly, the impact ICT has on society. All of the participants had published work in the field.

This group of participants could very much be described as professionals who, as will be shown later, have a strong commitment to their work and subject area. As a result they are a pertinent group to study to see what degree factors such as control of product and process, arising from the labour process, play in an assessment of alienation in this setting.

A point of interest to note here is the route by which the different participants came to be interested in research on ICT and ethics and/or the societal impact of the technology. Although the participants in this phase of the research did not share a common working institution and it was not possible to arrange a collective discussion of the issues explored, a number were computer scientists who had come to the area because of concerns about the relationship between technology, society and the computer scientist. The interview group also included academics with a philosophical background who had become interested in the relationship between philosophy and ICT.

Some were researchers working for research organisations that had undertaken research on ethics and ICT as part of a requirement for European projects. Others were undertaking research in the field as part of a wider appreciation of the issues and as part of their postgraduate studies. Some of the participants are linked to networks that have, a close, shared, some might say, cherished view of the relationship between ICT and society. Thus, for example, Ethicomp describes itself as “an interdisciplinary community dedicated to exploring issues and seeking ways forward” while working in a “supportive and inclusive network” (Ethicomp 2014). Similarly, the journal *Ethics and Information Technology* outlines its scope as being “a peer-reviewed journal dedicated to advancing the dialogue between moral philosophy and the field of information and

communications technology (ICT)” (Ethics and Information Technology 2013). Hence it can be argued that this group of subjects could be described as exhibiting a shared intellectual coherence derived from a critical view of the technology. The mixture described above in terms of involvement in the subject by way of time, age, gender, and specific areas of interest justifies the claim that the participants interviewed for this part of the research were more than adequate for the task.

Mention has already been made earlier about the validity of including this setting in the study. The element of the research involving the academics sought to approach the subject matter of the research from an angle slightly different to that of the other two settings for two reasons. The overarching theme of the study is the societal implications of ICT, precisely the area of concern for these scholars. So how they progress their work and how that work is subsequently publicised are of direct relevance to any discussion about ICT and society and therefore alienation, for after all, they are the main producers of work concerned with investigating these issues.

The second reason is balance. By using the settings, it has been possible to research the creators of the technology, end-users of the technology and the researchers of the technology, thus providing three very different environments from which to investigate the notion of alienation.

This part of the discussion will conclude by looking at the Southwark Pensioners’ Action Group (SPAG).

4.3.3 SPAG

SPAG is a campaigning organisation that welcomes members aged 50 plus who live in Southwark and provides advice on a range of issues and campaigns for adequate pensions, services, living conditions, educational, social and welfare needs of older people in Southwark. Many of its members also belong to other groups such as the Southwark Pensioners Forum (SPF) and the Southwark Explorers Club (SEC),

resulting in a friendly, active and lively group which encourages people to join. SPAG also has an active programme of meetings and events focused on raising awareness and campaigning on issues that affect the health and independence of older people. Recent campaigns included opposition to the closure of the Maudsley Hospital Felix Post Unit, a specialist mental health service for older people; challenging the changes to Accident and Emergency Services which reduced specialist emergency treatment for people with mental health issues; regular lobbying of local and national politicians about the erosion of the value of the old age pension and the position of many older women who receive significantly less income than men. At the time of the research SPAG used the premises of the Southwark Pensioners Centre (SPC). The SPC itself was founded as a charity in 1987 and offers a range of services and activities to people over 50 in the London Borough of Southwark. The purpose of the Centre is to support older people to enjoy a good quality of life into a healthy old age by providing services, information and a community resource centre working to promote choice and opportunity for the diverse population of older people across the Borough. Over 800 people are in contact with the SPC and it has 20-plus affiliated groups and community organisations. In the learning sessions with SPAG it became apparent that participants had a number of objectives and a range of motives most of which were directly connected to the roles they had in organisations such as charities.

A flavour of the group's makeup can be gleaned from the description of some of the SPAG participants which were a mixture of women and men. One was a woman aged 70 who has worked with pensioners' organisations in Southwark for the last ten years. In 2008 she played a leading role in the celebration of the State Pension centenary, investigating local history and producing educational materials. This culminated in a pageant in East Street and the opera, "Pensions for All," which was collaboration a between SPAG members and children from three local primary schools.

She has been editor of the SPAG Newsletter, obtaining a grant to produce this in colour. She has a wide range of skills developed during her career in education, including public speaking, writing and working in a team. Until recently she was chair of a local tenants association, a trustee of Bermondsey Village Hall and also of Southwark Victim Support and a school governor. Prior to retirement she worked in education and was a head teacher for 22 years of primary schools in Southwark. She had a sight impairment that made it difficult to always be able to read the computer screen.

One of the men was 92, had lived in South London for all his life and had only very recently come to ICT. His ICT skills were almost non-existent and he had advanced arthritis in both his hands.

Another participant was a woman in her 70s who had been active in a range of political and community groups and who had lived most of her adult life in South London. She was also fluent in three languages, English, French and German, and had worked extensively in the print industry as a proof reader and photo typesetter. As a result of her working background she had experienced the impact of technical developments in the print industry. She could be described as having a fair degree of skill in ICT since she also used technologies, such as social media, at home.

As can be seen from these albeit brief profiles, the group that participated in the hands-on sessions was a mixture of age (after all there are some 20 years between someone aged 70 and a person aged 92), gender, skill level, and physical abilities. The common thread shared by all the participants was a keen desire and determination to enhance their computer skills. As such the group included the key ingredients required for undertaking this part of the study.

Having outlined the nature of the organisations and participants that provided the focus of this study, the discussion will now shift to describe the processes involved in gathering the raw material for the research.

4.4 The group sessions and individual interview processes explained

This section will follow the structure adopted for 4.3 and will thus open with reference to the ICT professionals. It will then look at the scholars and concludes by discussing SPAG.

4.4.1 ICT professionals

It was not feasible to undertake this aspect of the research using a fully fledged PAR method simply because it was not possible to create and follow through with a project involving the ICT professionals since this would have required an adequately funded time limited project staffed with seconded computer experts. Although such a task would have been challenging and fruitful, as will be appreciated, the planning, funding and undertaking of such an initiative were well beyond the reach of this research programme and outside the remit of a doctoral thesis. Having said that, successful attempts were made to incorporate the sentiments that inform PAR into this aspect of the research and to try and give over as much control as possible to the participants. Thus the data gathering activity related to this part of the study consisted of a group discussion supplemented with follow-up individual interviews. Unlike the work involved with SPAG, this element also required a more structured approach in order to bring to the surface how the professionals felt about ICT and therefore choices had to be made about what questions, both in terms of form and content, needed to be asked and the balance that was required to meet the demands of the research task.

It would have been possible to base the questions on the views of a range of theories on alienation, for example Marx and Seeman, but if such an approach was adopted it was felt that, primarily because of time constraints, the results might well have had some breadth but would have been woefully lacking in depth. As a result it was decided

to construct the questions for both the group session and interviews using only one theory of alienation. Having decided to base the questions on one theory, the next question was to choose which of these theories to use and here the decision was made to make the Marxist theory of alienation the focal point of the research. The decision was prompted by the outcomes of the first phase of the research and, as will hopefully be shown in the following Chapters of this thesis, was vindicated by the material accumulated.

The protocols designed for the group sessions and individual interviews were informed by four key imperatives: the need to collect raw data directly associated with the priorities of this research study; the desire to encourage an opening up of the discussion to facilitate data collection; following a critical realist approach, a bringing to the surface of attitudes otherwise hidden from view; and to encourage a reflective process during the discussion itself. Agreement was sought and obtained for both the group discussion and following interviews to be digitally recorded for later transcription. The approach adopted for this phase of the research proved to be quite productive in terms of data collection and this encouraged a similar method to be employed in the research that focused on academics. The discussion will now move on to deal with that phase.

4.4.2 Academics/researchers

The general approach adopted for the interviews in this phase flowed from the positive outcomes in terms of data collection experienced in the work with the ICT professionals. Hence many of the comments made in the section directly above relating to the planning and implementation of interviews are applicable here. There is therefore no need to restate the points made above.

There was however one significant change in the manner in which the interviews themselves evolved. The responses from the academics tended to be much more

contemplative than had been the case with the ICT professionals. Perhaps this can be explained by the nature of the day to day experience professionals have of the technology in a commercial environment. For them the impacts of the technology are immediate and thus they are more capable of articulating their impressions more quickly. Whereas the day to day experience for academics is primarily concerned with analysis and the evaluation of evidence and perhaps because of this, they tended to be more reflective in the interviews before committing to a given response.

Unlike the two previous phases of the research, it was not possible to organise any collective discussions about the issues around which this research revolves. The implications for this are discussed further in Chapter Ten. Having said that, the 15 interviews conducted for this element proved extremely fruitful for a number of reasons: ample evidence associated with alienation as mediated through specific events and experiences was collected; the range of academics approached, as discussed above, provided data that could be used in both a comparative and contrasting manner; all of the interviewees were engaged in the process (indeed a number commented on the stimulating experience they had); all of the interviewees were prepared to share their thoughts (and on occasion quite intimate details) with a stranger; none of them intimated that they considered any of the questions superfluous; and a significant amount of relevant data was gathered. The discussion will now shift to look at issues associated with SPAG.

4.4.3 SPAG

The first group discussion took the form of a planning meeting in the *Fox on the Hill* pub on Denmark Hill, South East London in November 2009. This meeting was the outcome of a presentation I had previously been invited to give at one of the monthly open meetings of SPAG in October 2009 and flowed from a request by members of SPAG who wanted to participate in the computer sessions and who felt that

participation in the project would be more productive if a planning meeting were held prior to the start of the sessions. It can be seen here that even at this very early stage participants were seeking to shape the nature of future discussions. In the event, this meeting was important because it enabled me to outline in some detail to potential participants the PAR method process I wished to follow and to present the arguments in favour of this approach.

The decision to meet in a pub had been taken by those who had agreed to participate in the research activity for four reasons. It provided a relaxed atmosphere within which to discuss the research proposals; it was geographically central to many members of the group; it was known to most of the group; and finally, it was possible to reserve a quiet corner big enough to accommodate a large group. Following the principles of PAR, it was one of the participants who approached the pub management to reserve the space. However, as has been indicated above, this was the choice of this group of subjects and was indicative of their desire to take ownership of the process. The notion of ownership plays a very important role in PAR and seeks to break down the hierarchical relationship that can permeate traditional research activity (Kindon *et al* 2007: 87). It is noted that in other research programmes involving other subject groups, the choice of a pub may not be considered particularly appropriate. In the event the refreshments were coffee/tea and sandwiches.

The initial group discussion realised a number of important decisions. It was agreed that the Southwark Pensioners Centre (SPC) should be approached by SPAG to book the computer room, participants also agreed to negotiate with the management of the SPC over the cost of hiring that room and that the frequency and length of each session should be decided at the first ICT session. These decisions indicated a considerable commitment by participants in the project in that they were prepared to commit both personal and financial resources to the activity.

As a result of the discussions with the SPC, the ICT training sessions started in January 2010 and ran over a period of 15 months with breaks during April 2010, summer 2010 and December 2010/January 2011. These sessions continued through the early part of 2011. Initially, the sessions were held on a Wednesday once every fortnight for two hours, normally running from 16.00 to 18.00. However the frequency of the sessions was determined by other commitments of both of the participants and me and as a result, after Easter 2010, the sessions were held once every three weeks. Ultimately 12 sessions were completed.

The computer training sessions were undertaken in the windowless computer basement room of the SPC where there are eight networked personal computers using Windows XP sharing an inkjet printer and each having access to the Internet running on Windows and using MS Office. There is a large oval table with a number of chairs which facilitated round table discussions.

Each session opened with a discussion which focused around three key themes: reflection on the previous session; activity undertaken by SPAG members since the last session and the priorities for the session about to happen. The discussion at the end of each session was to enable participants to reflect on their immediate experience and to identify issues that would need to be addressed in the next session as well as to recommend possible activity SPAG members could undertake to both reinforce the learning and prepare for the next session. These concluding discussions were in effect a critique of the session's activities.

Having obtained permission from the participants, the preview and review discussions were recorded on a digital recorder and, towards the end, were recorded on video. At the start of the process, these discussions were initially researcher-led but once the initial routine had been established, the discussions quickly became participant-driven. It would seem that this was in part facilitated by the familiarity the participants had with

each other. This was encouraging since it indicated that the attempt to engender a PAR environment was being successful. It was during these group discussions that participants were asked if they would be prepared to engage in an individual in-depth interview. It was pleasing to note that almost the entire group agreed to do so but it was considered that not all of the volunteers needed to be interviewed for this research programme. Those who were not interviewed indicated that they would be prepared at a later date should this be necessary.

The interviews were undertaken shortly after the end of the series of hands-on sessions. This was done in an attempt to ensure that there would be immediacy in terms of the recollections of the hands-on sessions. It was thought that undertaking early interviews would allow for the capture of fresh reflections on the experience generated by this research.

The interviews were carried out at a time convenient to the interviewees and were conducted in an environment with which they felt most comfortable. In some instances this was in the Southwark Pensioners Centre, others in a cafe or at home. As with the group sessions, all the interviews were digitally recorded. The interviews lasted between 30 minutes and 75 minutes. The purpose of these interviews was to allow participants to speak at length about their experiences with ICT and to critique the collective hands-on sessions. Luckily, one of the participants had been a photo typesetter and agreed to transcribe the individual interviews and the hands-on sessions. This was a great help. The process described here resulted in a significant amount of suitable material of both a collective and individual nature, and as was hoped, the two different elements complemented each other. The success of the process in this phase of the research was important for two reasons. It underlined the relevance of the PAR approach and the material it yielded indicated that the following phases of the project

were likely to be as productive. The next stage of the research, which focused on ICT professionals, forms the next part of this discussion.

As the foregoing indicates, the collection of data for this phase, and the previous two, generally validates the approach adopted for the three settings that form the core of this research. However, it is also clear that criticisms can be made of the choices of subjects and methods used in this study and these are discussed in Chapter Ten.

4.5 Conclusion

This Chapter has sought to explain how the chosen methodology selected for this research was implemented; to describe the processes involved in contacting participants for this research; to outline the methods used to obtain data and to give descriptions of the nature of the participants and organisations to which they belong. As with any activity of this nature, critical reflection can provide pointers for future research. These reflections have been fully developed in the concluding Chapter of this thesis.

The settings selected and the participants included in this research consist of, as Miles and Huberman recommend, “small samples of people, nested in their context” (Miles and Huberman 1994:27). The choice of a setting-based approach allowed for effective research boundaries to be established and provided for “information-rich cases” to be studied (Miles and Huberman 1994: 28). The approach employed has also helped to militate against potential bias since the three settings and the participants they included differ considerably. The method, people and organisations preferred for this study could be justified since they have enabled the research programme to deliver adequate sets of data and it is the description and analyses of these data that form the themes of the following Chapters.

Chapter 5: Alienation and work: ICT professionals

5.1 Introduction

This Chapter provides a description and analysis of the work covered by this setting and draws upon data obtained from both the group session and individual interviews with ICT professionals. It opens with an outline of the key characteristics that define the IT industry to provide the overarching environment within which the ICT professionals who participated in this study work. The Chapter then briefly revisits Marx's theory of alienation to provide a justification for focusing on two aspects of that theory.

The next sections, which form the bulk of the Chapter, outline the findings and analysis of the data obtained by the research. The task here is to establish how robust the theory of alienation can be when trying to excavate, so to speak, and bring to the surface, the lived experiences of ICT professionals. Using data from the group session and individual interviews, the process is designed to allow the voices of the professionals to articulate their world as they see and feel it and to discern where, if it at all, the categories described by Marx can adequately theorise these perceptions.

The purpose is to create a narrative enabling the ICT professionals to articulate their working lives as they see them, to place that narrative within the general trends evident within the sector and to test whether their words echo the notions of alienation. The ambition here, as is the case with the other settings, is to focus on what Lukács calls totality, mediation and immediacy (Lukács 1971). In doing so, no attempt has been made to compress the views of the participants into the preferred theoretical approach. Rather the approach has been to create a relationship between theory and data where they are both dependent of and yet independent on each other. In doing so, each defines the other and they are in a dialectical relationship.

The Chapter rounds off by emphasising the main conclusions that can be drawn from this setting and points towards the description and analysis of the next setting which is concerned with scholars researching the ethical and societal implications of ICT.

As will be recalled, Chapter 2.6.2 of the literature review included references to texts concerned with those constituent elements that define what it is to be an ICT professional. Consequently, it is considered unnecessary to reprise these issues once again. The discussion will now consider the environment in which these professionals work.

5.2 The state of the IT industry

One of the main characteristics that has been present since the emergence of ICT has been the intensive and incessant development of the technology itself. During the best of economic times, this process has presented challenges to those who work in the IT industry. However the onset of the economic crisis has created additional difficulties. A comprehensive study on the impact of the economic climate on IT spending was published by the Institute of Electrical and Electronics Engineers in 2012 (IEEE 2012). In its survey of 336 Chief Information Officers, the IEEE noted that almost half of the companies surveyed had delayed upgrading of computer equipment and networks, with a considerable number anticipating zero spending on IT projects.

This experience clashes considerably with that of previous years where, as the report notes, 10-12% increases in expenditure in IT companies had been the norm. As a result of this environment, the IT industry, which already had been quite competitive, has become increasingly more so (Anderson *et al* 2012). However, the process is also a contradictory one since at the same time there has been an increase in cooperation between providers of ICT (Pellegrin-Bouchera *et al* 2103). In addition, experiences differ within the industry between those companies that provide ICT services and those concerned with manufacture. The former employs significantly more ICT professionals

than the latter and it is the most dynamic segment of the industry as is witnessed by its relatively more positive recovery from the crisis of 2009. A significant growth sector has been the provision of IT professionals from developing countries for service contracts in the more advanced economies (Xiang 2006). Hence the practice that goes under the odious name of “body shopping” where a “business loans the technical expertise of an organisation's employee. It enables companies to access skilled individuals or a team of professionals to work remotely or on the business' premises, in conjunction with its existing teams.”(Coles 2013). Although primarily applicable to IT experts from countries like India, it is being considered as an increasingly attractive option for IT companies based in America and Europe (Coles 2013).

However, as with all other sectors of employment, the immediate future of the ICT industry depends on the wider economic context which remains fragile and uncertain for many of the advanced economies. It is within this generally adverse environment that ICT professionals are required to undertake their daily tasks. The next section, albeit briefly, considers to what extent studies in the field puts the voice of the professional at the heart of the research.

As the literature review indicated, although there has been some degree of qualitative research involving ICT professionals, it has not been possible to discover any where they come together to discuss and reflect in a collective environment, their experiences of the technology. In short, in most of the research the voice of the professional is refracted, one could argue distorted, through the prism of the researcher and she is treated as an isolated individual. The approach adopted for this setting adds a unique dimension otherwise missing in research in the area. Having contextualised this setting in terms of current research, the discussion will now briefly reprise the categories of alienation outlined by Marx.

5.3 Marx's categories of alienation

The purpose of this section is to explain the reasoning behind the decision to focus on two of the four categories of alienation advanced by Marx. Although the data collected for this setting have provided material for a deep and broad consideration of the all the issues Marx raised, as they relate to ICT professionals, spatial constraints have limited the discussion to two categories.

Chapter 2.5 outlined what Marx believed to be the four key aspects of alienation arising from commoditisation of labour namely: alienation from the products of labour resulting in self-alienation in the sense that work is not self-satisfying since the results of expended labour belong to another; alienation inherent in the nature of the work process that Marx's calls "the alienation of activity" (Marx 1970: 110); alienation from our species being, which Marx argues is our propensity to work collectively to transform our environment; and finally alienation from each other since the other is seen as a threat either as a holder of power or as a competitor. The approach adopted for this setting focuses on the first two forms of alienation. There are problems with following such a course since, as was seen in Chapter 2.5 the fundamental strength of Marx's theory derives from its presentation of a coherent whole where each element both contributes to and is dependent upon the other parts. As such it seeks to provide an all encompassing framework within which to consider work under capitalism. It is the interlocking nature of these elements that furnishes it with its explanatory potential. By selecting two of these elements there is the danger of being open to the criticism levelled at Seeman when he presented a set of six, almost discrete aspects of alienation. Nonetheless, given the limitations of time and space associated with doctoral research, it is felt that, provided the warning signs are heeded, it should be possible to proceed on this basis to engage in a fruitful analysis of the evidence provided by the ICT professionals. It is this analysis that provides the core of the following sections and it draws upon evidence obtained from both the group discussion

and the individual interviews. This discussion opens by exploring how much control professionals have over products they create, moves on to consider the work process experienced by ICT professionals and finishes with the role of management in the process.

5.4 Control of the outcomes

5.4.1 Introduction

Before presenting the findings of this setting, a short comment on designation is required. In the following text the gender of the participant is identified by F for female and M for male. This is followed by their job title and the context of the comment is identified as GD for group discussion and II individual interview. Working at the very heart of the industry, in the sense of being employed by a typical medium to large scale IT enterprise, the ICT professionals who participated in this aspect of this research are extremely aware and articulate about their position in the work process.

5.4.2 Control of outcomes

The work they undertake derives from requests for projects, which can emanate from an external customer or can be initiated internally. For external work, tendering for projects is the process adopted to obtain business for the company. It is the sales people who can determine the job requirements since they can say what can be done for what cost. *"...people at a high level... design and cost it and...if the contract is won there is work to do to develop something we could deliver... a 100 people (could be) working for a year before a contract is signed...we could be working on something that is never made"* (M4 Systems Designer GD). Another participant added *"...assignments come from the customer. They come down to us..."* (M1 Project Manager GD).

For internal work, requests are generated by managers. Either way, the requests are channelled through to the ICT professionals via management structures. This is reflected in the nature of work within the company *"within the company there are two categories...people with jobs where the managers give them stuff to do and...move*

you around on different tasks...half the company works on an assignment basis. M4 Systems Designer GD).

One result of this is that professionals do not have a real choice on what type of project they can be working on. *"We do...what the contract says...forget ethics and forget your personal opinion or personal feelings...That is your job and you do it"* (M1 Project Manager GD). The participants are fully aware of their lack of power over how the outcomes are used. *"I don't have any control over that at all other than if we are aware there maybe some ethical issues that we might take a stand on"* (M2 Software Engineer II) Another commented that *"...I have no control over what might be stored in... a cloud provision, only...what types of data it might be"* (M4 Systems Designer II). Talking about a specific project, one participant *said "I have no control over how it is used...a complete damp squid would be if we introduced (video conferencing) and people continued to (use) motorways"* (M1 Project Manager II).

As the following extended quote indicates, a further problem arises from changes arising from external pressures on the ICT sector as a whole such as the drive towards separating so called commodity functions from core activities (Kaiser *et al* 2011).

When I joined the company...there was little assignment work. The change has come from...being a proper IT company into a service company... Most of the industry is going through that... We have also changed from providing propriety products ...to an industry being very much standardised and commoditised type of technologies... our skills have become standardised as well."(M4 Systems Designer GD)

The provision of an IT service has far reaching implications for the professionals who are involved in the work. The development of, for example, physical infrastructures employing cloud technologies constructed using standardised and commoditised IT elements running alongside IPR (Intellectual Property Rights) results is a process in which the things ICT professionals create adversely impact on the way they work because they are effectively undermining their own skills and professionalism. In considering this issue, one of the participants commented *"companies can use this as*

pretext to reduce pay and benefits...to lower the status of the job...people are being squeezed quite severely" (M1 Project Manager II). Continuing on the same theme another added "*In a sense we produce our employers' means of production in developing the infrastructure and services, then deploy those means of production to deliver services to customers*" (M4 Systems designer II). Having looked at the problem of control over outcomes, the discussion will now shift to look at the work process as experienced by ICT professionals.

5.5 Control of the work process

5.5.1 Introduction

This section opens by looking at the manner work is allocated within the company and is followed by an examination of the way in which the work process is organised. As part of this discussion reference will be made to the impact the current economic crisis has had on the industry and to more recent innovations, such as lean IT, as they apply to the working environment of IT professionals. This discussion relates to Marx's theory of alienation, as described in the literature review, since he talks about the control of process as well as product being a critical element in this condition and touches upon the issues he raises when he refers to the subsumption by capital of the working process. Consideration will then be given to the way ICT professionals are managed and the section will conclude by outlining a number of general observations that can be made from this empirical research.

5.5.2 Allocation of work

Assignment work demands an extended team effort thus echoing one of Marx's characteristics of "species-being". "*You will get a whole lot of different people involved in assignment and project work*" (W1 Asset Manager GD). Mention has already been made of the way in which the work is allocated via the resource/assignment manager. For the professionals working on assignments it is "*like being a contractor, where you work on a series of assignments from projects or customers and it is people running*

that who give you stuff to do" (M4 Systems Designer GD). Elaborating on this process, another participant says that when a project is proposed "*they need a project manager and a service manager or a customer solution architect and...they will go to different parts of the company that have these resources and say this is what we need*" (M1 Project Manager GD).and the assignment manager will "*deal out or offer assignments as they come along to a smallish team of project managers*" (M2 Software Engineer). What is being described here is a highly sophisticated internal division of labour a key element in the continuation of alienation.

The lists of projects and jobs required are often posted on the company's intranet. The idea here is that people can choose the projects on which they work. The reality is different. "*...people do...pick what they would like to do but... pressure (is) put on them by line managers to do a certain one (job)...In theory you can pick...your own assignment but in practice you get pressurised to do certain work*" (W1 Asset Manager GD). For internal service work, sometimes work allocation is far from clear "*in theory you are supposed to have objectives that give you an idea of what you are supposed to do but I don't have anything and neither does my manager...it is very disorganised*" (W2 Quality Control GD).

5.5.3 How work is billed

The demands of assignment projects also mean that the work of the professional has to be clearly itemised. This is common practise with consultancy and service project work and as a consequence, the professionals are expected to complete what is called a term of reference clearly detailing the work to be done and the time framework within which it is to be completed. A consequence of this is a very tight day by day and hour by hour allocation of work because the client requires appropriate evidence to tie work completed to the demand for payment eventually issued. In this company, this process

is also increasingly being applied internally. Previously, departments billed on actual time taken for a job. Moreover, the firm now wants

to move to fixed price contracts where the department would be paid the same whether it takes a day or a fortnight (this means) increased supervision...more stats on comparative times... Managers (ask) why that job is taking twice as long as a similar one. (M4 Systems Designer II GD)

The description here is one of increased scrutiny of the professional in an attempt to get greater control over what s/he does and the time it takes to do it. This is discussed further in Section 5.6 below.

5.5.4 Highly prescriptive job functions

At first sight it could be expected that the project managers would have, in this environment, a significant degree of latitude over how they handle their tasks.

However, as the following quote indicates, orthodox project methodology, in this instance Prince2, dominates and controls the work process.

“Project managers follow Prince2...project methodology (which) is a pretty intense methodology to follow and...most of our customers...want (it)...we have to follow that from the very beginning of the project...” (M1 Project Manager GD)

The same highly prescriptive and constricting boundaries are to be found in the work process of those professionals tasked with working on internal IT requests where professionals involved *“in delivering a service follow the ITIL methodology. On our company intranet there are methodologies (and competencies) for just about every role there is in the company ”* (M1 Project Manager GD). This is describing the imposition of highly organised frameworks laying down common guidelines for each skill set to which each professional must adhere. Here external pressures resulting from the nature of the industry, described in Section 5.2 above, has meant that the IT firm concerned *“has definitely accelerated and driven re-organisation internally with push towards commoditisation and standardisation with the use of templates and all that kind of thing”* (M4 Systems Designer II).

5.5.5 The changing nature of IT contracts

The economic crisis has increased competition within the IT sector and although evidence suggests that while there is some pick-up in IT spending following the significant cuts experienced in 2009, demand for IT products is uneven and customers are looking for the cheapest viable option when considering up-grading IT systems. Previously “... you could have three/four years where every year the government would...want enhancements to existing systems or new IT stuff (which would mean)... six figure (contracts)...”(M2 Software Engineer II). This type of work has fallen away.

The nature of the contracts won by the company has also changed. “*Before, the government would put out multimillion pound contracts.... What they are ...doing (now) is to tender for relatively small chunks of business. In my own work projects are being shelved or put on ice*” (M1 Project Manager II). These trends have had multiple impacts on the work of the ICT professional, four of which, namely the impact on the skill base, the security of employment, the development of technologies, and changes in management techniques, have been identified by the participants and will be discussed in the following section.

5.5.6 The impact of standardisation and commoditisation

Although mention has already been made about the standardisation and commoditisation of the industry, it is worth exploring this in more detail.

The participants were acutely aware of how the change in the industry affects their skill level.

We (are) an industry (based on) very standardised and commoditised type of technologies...so our skills have become standardised as well. Whereas twenty years ago people had a niche skill with individual negotiating bargaining power we are now moving rapidly towards a situation...where you will have more intense competition both internally and externally, where companies just compare on price and this reflects on how they treat people. (M4 Systems Designer GD)

This view is supported by another participant when he says that until recently “*there seemed to be immense scope for people to show creativity...the company is*

developing standard offerings which have dumbed-down...you could construe (this) as a drive to the bottom” (M1 Project Manager II).

The professionals are also aware that as their skill level is jeopardised, the company has reduced its commitment to encouraging staff to up-date existing skills or develop new skill-sets. *“Once upon a time...there was a lot more support from the company, who would take an active role in developing...careers...this had been whittled away” (M5 IT support GD).* People with legacy skills are now made redundant and the company *“hire people with new skills that they require to move the technology on. This is preferable to redeveloping the skills of the existing workforce” (W2 Quality Assurance GD).* As another participant records, *“I used to have a career development manager...now you have to battle against the business imperatives..” (M2 Software Engineer GD).*

5.5.7 Awarding contracts: The impact on employment

There are also adverse consequences in terms of employment conditions arising from the highly competitive nature of the industry, the way the industry is structured and the tendering process used to award contracts. As was mentioned above, work is now broken down into chunks with projects frequently coming up for renewal. Contracts tend to be won by the large IT companies and large contracts can often have more than one company in play.

One participant talking about large contracts describes it thus *“Many...are won by consortiums where big IT companies are competing with each other and being partners...they are partners, they are competing...because they want to win more work from the client” (M4 Systems Designer GD).* Supporting this view, another professional adds:

When the NHS decided to split the country into five clusters and each cluster had its own IT, X firm was involved in all the clusters. We were involved with X on one or two of the clusters on a bid but they also chose to

bid on that cluster by themselves. So at one point we were working them but we had to be careful with our company secrets and confidentially and on the other hand they were bidding against us for the same work. (M1 Project Manager GD)

This view is supported by another participant. *“The contract I am working on now provides services for XX and another company is providing a similar service...we are now...reallocating work... (the other ICT company) is taking bits and we are giving them bits...”* (M6 Network Engineer GD). In this environment those working on external assignment work find they are working closely with a direct competitor but are required to do so because they are supporting the same systems.

Even if an existing contract is lost to a competitor, it does not necessarily mean that the professionals actually working on the ground change; they can be simply transferred to the new provider. This process is referred to as being TUPE.⁹ Tupe transfers are increasingly common in the industry and one professional says

Once upon a time Tupe didn't exist anyway, but... contracts are being won and lost and in our company, the HR are, well there are a lot of problems here and there is a lot of job insecurity. If you are told you are in a Tupe situation from your current employer to a new employer, then it is good that you are not in a redundancy situation but it can be damn close to that if your potential new employer is only able to offer a change of location which is well beyond commuting distance” (M1 Project Manager GD).

The TUPE process appears to be a general experience for the majority of professionals in the UK working on medium-to-large scale contracts. For those on short-term contracts, which can be defined as being up to one year, TUPE safeguards are not applicable thus leaving these professionals in a very precarious position (Public Sector People Managers' Association 2013).

⁹ The Transfer of Undertakings (Protection of Employment). Regulations (TUPE). protects employees' terms and conditions of employment when a business is transferred from one owner to another. Employees of the previous owner when the business changes hands automatically become employees of the new employer on the same terms and conditions. More information can be found on the [ACAS site](#).

The professionals are sensitive to the problems associated with transfers as *"it could well be that someone is Taped out of our company because we have lost the contract and ...we could win the contract back and they will be Taped back in again"* (M2 Software Engineer GD).

Aside from the insecurity arising from switching firms, the change of employer can result in a dramatic change of location. *"There was one case recently where the change of location was to India"* (M4 Systems Designer GD). This may be an extreme case but it is indicative of the types of pressures and choices ICT professionals have to deal with on a regular basis when projects are up for re-negotiation or are taken over by a different company. It is also an example of the control their employer has over the professionals.

5.5.8 Travel

The professionals working on assignment contracts are often required to travel, sometimes quite considerable distances and often for a long time. One participant recalled a colleague who lived locally but *"was sent to South Wales for two years, came back for a short while and then was sent overseas"* (M1 Project Manager GD). On occasion it is possible to work remotely as in the case of server support but it is common for the client to demand the ICT professional to be on-site even if she thinks her presence is not required all of the time. As one participant put it *"this often happens because the customer...demands we work on site rather than remotely"* (M2 Software Engineer). Mention has already been made above about how the change in an employer arising from contract tendering can have travel implications. The need to travel has ramifications beyond the immediate work context and in talking about his work a group member said he was *"going through all the kinds of things that we have talked about, the stress, the pressure and working away from home which is crap"* (M6 Network Engineer GD).

As has been mentioned, if an ICT professional does not want to work away from home because of a range of commitments, this has an adverse impact on how he is perceived by those seeking to put a team together for a project. Project managers for external assignments “*do not want people who do not want to travel*” for various reasons (W2 Quality Assurance GD).

5.5.9 Relationships with professionals working for other companies

As the following extended quote indicates, the constant shift in the ownership of the contract to deliver a system also has a stress impact on the way professionals relate to others from other companies:

If our company takes over the contract we say to the people working for the other company who are now working for us, ok, this is our process, we then try to hand something over to those working in the other company, they say, that doesn't look right, that is not the way we do things and you will have to do it again or whatever and there is all that frustration. What happens is that you start to get frustrated with someone else who is trying to follow a process in their job and you are trying to follow a process in your job and then friction and conflict happens and then someone has to come along and bash heads together and work out a common process. (M6 Network Engineer GD)

As is to be expected, working in this way has an adverse impact on the inter-personal relationships between ICT professionals. “*...each group has its own interests and not necessarily working to the customer's benefit. You can...get a situation where there is a main competitor and our company is a sub-contractor*” (M6 Network Engineer GD).

“*So you also get the blame game where each other says that was the other's fault*” (M1 Project Manager GD). Another participant adds “*This becomes political...you are always worried that if you are talking to someone you are going to get it in the neck for having caused a problem with the partner, supplier, customer or whoever*” (M4 Systems Designer GD). This process can have quite immediate and significant consequences; one participant describes an incident where he “*was working at a client and because of a slight misunderstanding in our work, the primary contractor said I*

don't want this gentleman on site anymore. Within a week I was gone" (M1 Project Manager GD). This type of experience engenders a sense of fear which arises *"because the blame game is absolutely central to these relationships"* (M4 Systems Designer GD). *"That adds to the stress in that you can't even sneeze the wrong way for fear of being let go of a particular piece of work"* (M1 Project Manager)."

5.5.10 Re-engineering the work process

The intense competition and the concomitant continual churn of project contracts have led the main ICT companies to re-engineer working methods. Investigating these developments can be beneficial since they help shape the work experience of these professionals and help provide insights into the management practices of medium-to-large scale ICT companies. A recent trend within the IT sector is to look towards manufacturing for configuring the workspace with the work process mirroring that of a production line.

As one of the participants relates that *"several people will be doing different things at the same time on the same work. There are dependencies within them and that fits the production line analogy...things taken from manufacturing like lean and just in time"* (M4 Systems Designer email exchange).

This is an interesting comment because it implies the IT sector while being perceived as a cutting edge industry with regard to product is seen as an industry behind other sectors in terms of its work process engineering. Hence the need for organisations to apply more up-to-date production line techniques to improve performance and to embrace notions of standardisation and commoditisation. Since much of the work undertaken in this sector uses networks, it is valid to describe this process as a networked production line.

Events, such as the annual European Lean IT Summits, is evidence of the strength of these developments which increasingly limit the possibilities for the professional

working in this environment to develop, let alone follow, a preferred work process even if that was deemed, by ICT professionals, to be more efficient and more suitable to individual needs. Of course, the process of de-skilling, commoditisation and standardisation of work creates a demand for fewer, more highly trained professionals to push through these changes. There is evidence to support the view that in the short-to medium-term future the sector is likely to experience the development of a high number of relatively low grade deliverers of commoditised, standardised components developed and managed by a much smaller, but still substantial, number of innovators and highly skilled managers (Pennington 2013). This process is more than just the development of technique. It is an example of what Wendling (2009) refers to the thermodynamic processes involved with the transformation of working practices in which a change, once made, is impossible to roll back. This process is also a feature of an alienated environment. Having looked at a number of issues arising from the way work organised, the discussion will now shift to consider how the work is managed.

5.6 The Management

5.6.1 Management structures

The general trends dictating work process are mediated through the management structures within organisations. In this particular company, the role of the resource manager is critical within the process of assignment working and they “*control what is on the list of assignments and they make sure people get assigned to them...they also put pressure on people...and put forward people for assignments that they (the professionals) have not even been told about sometimes*” (W1 Asset Manager GD).

The whole group concurred with the comment that “*The reality is that the assignment manager is responsible for making sure the job gets done and couldn't give a monkeys about the people working for them*” ((M4 Systems Designer GD). This method of allocating resources allied to the pressure to get the job done impacts on the choices made by assignment managers.

There are managers...who have a tendency not to want people in their organisation that have things like child care or any caring responsibilities or any health problems or part-time hours because this causes restrictions on what kind of work they can do. They do not want people who don't want to travel or who say they want to do certain types of work (W2 Operational Acceptance GD).

This whole process involves a complex and resource consuming internal manager structure involving line managers, resource managers, project managers, information architects, delivery managers and an accounts team and reflects a number of the characteristics of this type of organisation (Tate and Ellram 2012). The array of managers has a direct influence on the work of the ICT professional. *"I have at least three managers. One is a line manager, one is the assignment manager, and we also have a so-called career manager"* (M5 IT support GD). This view is supported by other participants who say *"in the service desk we have...three managers at three different levels taking part in how we are managed, how we are appraised and monitoring what we do. We are micro-managed"* (W2 Operational Acceptance GD).

One participants adds

that will be different for different jobs as well...people who are told by their immediate line managers and then you have project managers...you may have the architect who will be asked to do things by the project manager, who may also be asked to do things by the delivery manager or customer or account team. (W1 Asset Manager GD)

Not all the participants were critical of their immediate managers. *"I get on ok with my managers, and I find my work rewarding enough but I am aware that managers are definitely a mixed bag"* (M6 Network Engineer GD). However his next comment is the sting in the tail. *"My personal experience is good but I know there are just some thugs out there."* As one comment illustrates, management pressure comes from the top *"Well, people's line managers get tasked with making sure people are utilised. So they get battered with a big stick if people are not doing stuff"* (W1 Asset Manager GD).

5.6.2 The Bench

This environment makes it difficult to directly manage employees and creates a number of contradictory tensions such as the demands from different managers with different responsibilities. The attempts to resolve these contradictions is expressed in an organisational form by the drive to develop an internal market where, as one consequence, employees who do not get assigned a project “*get put on what is called the bench...you don't get pay rises, bonuses; you can get picked for redundancy... they are using more of an internal market rather than a direct management mechanism to control staff*” (M4 Systems Designer GD). The notion of the “bench” is one that is familiar within the ICT sector.¹⁰ “*Being on the bench is not unique to our company. All the major IT firms do it...it does keep costs down because it is cheaper than having to hire contractors all the time. It is also a ready resource pool...*” (M1 Project Manager). Not all participants have a negative view of the bench. “*The company does need a proportion of people on the bench for flexibility...It is a sensible business decision to have a number of people on the bench*” (M3 Project Manager). This however seemed to be a minority view.

Benching also appears to be a method the company uses to avoid significant redundancy payments. “*Being put on the bench can happen to people who have been with the company a long time and who would get a lot of money if they were made redundant...(and) to people who are close to retirement*” (W2 Operational Acceptance).

5.6.3 The impact of the Bench

The process of benching does influence how professionals feel about each other and themselves. “*We have had people stay on the bench for a year...quite often it creates stress because people are forced to come into work and there is nothing to do. It is*

¹⁰ This term appears to have its genesis in sports and refers to players sitting on the bench waiting to be called into play. “Beached” is another term used in this context and is common in consultancy.

humiliating and degrading; their skills are deteriorating. It is horrible" (M5 IT support GD). The bench system can also impact on relationships between people in the same firm. As one participant puts it:

"Sometimes I know when there have been periods where there have been a lot of people on the bench as they call it and so it causes a bit of fear because people can see there are lots of people on the bench and they think obviously things are not good. On the other hand you can get some people who are quite stressed because they are on an assignment and who are working quite hard and then they see people sitting around with nothing to do and get pissed-off with them. Even though it is not their fault that they don't have any work to do" (W2 Operational Acceptance GD).

While benching is generally thought to be a negative state, as one participant hinted it could provide a positive environment. *"People...should get to do the things that they don't do when they are on assignments... training in quite a few of the areas such as software development that could be done online"* (W1 Asset Manager GD). Benching seems to incorporate a number of characteristics of alienation particularly as it relates to self-estrangement and estrangement from others.

When asked about how they felt about their jobs, one replied *"we love them.* (There was raucous laughter here from everybody in the group.) She continued:

I am only joking. I think working life is very stressful and people are being political within Tupe situations when you have lots of different contractors. Things can be very political even when you are working internally. It's like, for quite a few years it feels like you always have to cover your arse. So you always put everything in an email. You have to keep records of everything you have said and who you said it to even if you have been on the phone with them. You also sort of have to think politically even if you don't want to do that. Also that can be very hard. To think about what is in it for you, and other people, what is their agenda, and try and work put what might happen in a certain situation. So rather than just doing the work, you have all this other stuff to think about."(W2 Operational Acceptance GD)

Having presented the findings of the research associated with this setting as they relate to the chosen areas, the discussion will move to provide an analysis of the data.

5.7 Analysis

Given the objectives set for this doctoral research, the question that needs to be considered is how far Marx's approach to alienation helps theorise the lived experience

of the ICT professionals who participated in this setting. In looking at the control over outcomes of work, the evidence obtained indicates that these professionals have no choice over how their skills and competencies are used in terms of the products they make. Furthermore, the nature of these products means that none of them can satisfy her own immediate or long-term needs. After all, how many, if any, ICT professionals have need of a medium-to-large scale information system outside of work?

The software and hardware as well as the systems designed and implemented by these professionals have all been created for the “other”, the employer, to use to deliver a service to an external client and as a consequence the impact of this on the professional takes on five dimensions. First, the scope of the project already has been clearly defined and therefore limited by the client; thus strict parameters have been prescribed before any work commences both in terms of product and, increasingly how those outcomes are constructed. Secondly, once the product has been made, its use is owned and controlled by the employer. Even if, in the highly unlikely event, the professional did want to use the system s/he helped to create, it has now become the private property of the employer. In addition, the ICT professional has no control over how the outcomes of his/her work are used, who uses them and if they have any eventual positive or adverse consequences for society.

Fourthly, a consequence of having to participant in a way of working, demanded by the employer, that uses standardised units to generate IT systems, the ICT professional finds herself actively constructing a process that undermines her own skills and professionalism. Given these circumstances, each time the professional successfully completes a task, it is but one more step towards the deterioration of her own worth. A further outcome of this demand is that the professional, indeed the profession as a whole, has no control over the way in which the industry is changing with the rapid

emergence of commodity skills such as basic programming, routine software maintenance and testing, and elementary business processes.

Finally, it is the employer and the customer organisation that who benefits from the work of the ICT professional and while the professional has no control over them, they have significant control over her/him. It is an unequal relationship. This appears to confirm that the first part of the argument advanced by Marx has significance in helping to both form an approach to research and in providing a theoretical framework with which to analysis results.

But what of the work process? The nature of the ICT sector means that ICT professionals wait for work to be commissioned externally or internally. Within this particular company, work is distributed and, despite a formal process offering choice, the professionals have little say on the what they do; in some instances they can be deliberately excluded from work because of personal circumstances such as care responsibilities. The internal division of labour means the professionals have to be asked to work on projects and then can be pressurised into taking work they would rather avoid. When work is not available they are subject to, through the bench system, enforced idleness which can have detrimental effects on self-worth, skill level, and on how they are seen by their colleagues.

Once work has been allocated, the professionals are required to complete their tasks by adhering to a strict set of given methodologies or templates. They are also expected to employ a range of standardised and commoditised products to achieve the objectives of a project. Thus internal imperatives mean they have minimal control over how work is dispersed and implemented.

There was a significant absence from both the group discussion and the individual interviews. None of the participants mentioned any informal strategies to re-claim some personal interventions here. There are two possible explanations for this. The first is

that such possibilities just do not exist or that second, even within a safe and relaxed discussion where anonymity is guaranteed, they still could/did not want to articulate their views on this aspect of their working lives. Either way it is indicative of the oppressive environment within which these professionals work.

The onset of the economic crisis has provided further impetus for a wider and deeper application of short-term project contracts to be awarded to IT companies. Thus, ICT professionals can be transferred back and forth across employers with all the insecurity this can bring. They can also be faced with having to cope with a different set of working practices and with a change of employer can come a change of work location. In addition, there is the development of short-term employment contracts within the profession and although these are not always used by medium-to-large scale IT companies, it is not unusual to find a variety of non-standard employment methods such as the use of agency temps (usually in low-paid, lower skill jobs), use of contractors (usually in higher-paid, specialist skill jobs), and the use of zero-hour contracts¹¹ through a separate subsidiary. When in work, they can find themselves benched.

These developments create competition between professionals, insecurity, frustration, friction, conflict, and encourage a blame culture. All of these have an adverse affect on inter-personal relationships.

To this picture is added the complexities arising from professionals being accountable to multiple managers. Here management imperatives are focused on attempting to resolve the contradictions arising from horizontal forms of accountability by

¹¹ Increasingly industries are taking on staff on 'zero-hours' contracts - that is, where people agree to be available for work as and when required, but have no guaranteed hours or times of work. Zero-hours contracts effectively provide employers with a pool of people who are 'on-call' and can be used when the need arises. For more information see <http://www.acas.org.uk/index.aspx?articleid=3886>

implementing mechanisms such as benching. In addition, managers are perceived as being oriented on successful task completion with the well being of staff a secondary priority as is exemplified by the attitude towards training for the professionals.

For the ICT professional, the work process, like the products they produce, is, in the immediate sense, designed to deny them control and on a broader, more general sense, such as, for example, in the development of lean IT and the extensive use of commoditisation, is creating an industry over which they have no control and one which undermines what makes them professionals in the first place. The commodities being created and the way they are created come back to alienate the creators from the very creative activity, which gives them a positive sense of themselves. This is the antithesis of the commonly accepted notion of what it is to be a professional. The processes being described here dovetail neatly into the discussion Marx has about the nature of alienation. By both creating products and processes, the ICT professionals are building the components of present and future states of alienation and yet it seems to be a perfectly natural and seemingly unstoppable state of affairs.

At the same time, the trends inherent within the development of the industry, accelerated by the recent economic crisis, offer no possibility to arrest let alone reverse this process. ICT workers, for we can no longer safely employ the term professional, are now locked into a seemingly unstoppable process of ever increasing alienation for the overwhelming number of those employed in the industry. Given the above, it would seem that the second element of the Marx's notion of alienation is also evidently relevant to the work process as experienced by the ICT workers employed by this company.

As was argued above, Marx's formulation of alienation is extremely pertinent for the ICT professionals in this setting. However, would it be applicable in other situations that could be possibly described as more benign? An example of one such environment

could be those ICT professionals working in ICT start-ups such as Coursera, a company concerned with delivering MOOC's. At the start of the section outlining Marx's theory of alienation reference was made to the labour being a commodity and it is from this that Marx builds his view of alienation. This includes competition. Although time has not allowed a full exploration of the staff in Coursera, a review of comments made by interviewees, such as software engineers and communications managers, during the interview process appear to demonstrate that both the interview process and starting salaries are competitive between profit making firms such as Coursera (Glassdoor 2014). Here decisions are being made by the employer about the value of the ICT professionals labour. As competition is evident during the process of recruitment and since firms like Coursera operate within a competitive environment, it is quite likely that the alienated condition of those employed by firms like Coursera will surface. The relevance of the approach advocated by CR with regard to emergent properties and relationships is particularly pertinent.

5.8 Issues of validation, reliability, bias and ethics

As with any research, issues associated with the validation, reliability and researcher bias need to be addressed. Taking the last point first, the research for this setting, as with all the settings, was informed by Marx's theory of alienation. The design of the focus group and interview schedules adhered tightly to the categories Marx outlined in his theory. In addition, the schedules allowed for some degree of flexibility thus facilitating an exploration of those issues raised by the participants. While it is acknowledged that every researcher has, to a degree, an influence on the research activity, in this instance it is argued that by adhering to Marx's categories, I had minimal influence on the process of data collection thus minimising possible bias.

Assessing the reliability and validation of the data gathered for this setting was undertaken in two ways. The first was the procedure associated with member checking.

In this instance this took the form of sending a copy of a reworked Chapter Five to all the participants for comment. This re-worked Chapter also included those parts of the literature review that were directly linked to the Chapter itself. Thus the participants were, in effect, sent a complete package of the research as it related to them. As a result, limited comments and clarifications were sent to me by email and they were subsequently incorporated into the final version of the Chapter 5 as it appears in this thesis. The participants did not make any substantive comment on the analysis contained in the Chapter. Furthermore, the Chapter was circulated with the trade union representing the ICT professionals as a briefing document thus indicating significant confidence on their part in the research. Reliability and validation was also obtained by referring back to secondary research to confirm some of the findings, such as those associated with the introduction of lean management techniques, the prevalence of “benching”, and TUPED contracts, thereby strengthening the assurance that the experiences of the ICT professionals who participated in this setting will resonate with that of other ICT professionals in similar circumstances.

There was only one ethical issue that needed to be addressed in the research undertaken for this setting; that associated with anonymity. Before the focus group session and the interviews undertaken I gave a firm commitment that the anonymity of the participants would be respected. I went so far as to confirm that I would not be prepared to comply with any request to provide specific, identifying details of the participants even if this were to mean that the thesis would not be submitted for examination. All participants consented to the recording of the interviews and the focus group session.

5.9 Conclusion

This setting has sought to explore the perceptions of ICT professionals with regard to the control they have over both the products they make and the processes used to

create those products and to test whether the analysis of alienation presented by Marx chimes with these perceptions. It has considered the specific instance of ICT professionals within a more general argument about what constitutes professionalism.

The Chapter has also shown that by engaging in an extended conversation with the participants it has been possible to allow them to develop their own narrative. It has placed this narrative within wider theoretical discourse concerned with alienation and found that the experiences described by the participants can be understood within that paradigm.

There is one further observation worthy of note. Given the time and space it is evident that these ICT workers can articulate their profound reflections on how they see their working environment and their role within that environment. Their contributions during both the group and individual sessions indicate they have a firm grasp of the genesis and nature of the problems they confront. Where the solutions to these problems reside should be the subject of further conversations. The next Chapter looks at the experiences of scholars engaged in research/teaching the ethical and societal implications of ICT.

Chapter 6: Alienation, ethics and societal issues of ICT: The scholars' perspective

6.1 Introduction

As has already been mentioned in Chapter Four, there are convincing reasons for including this group in this study concerned with alienation and ICT. The work undertaken for this setting centres on data collected from individual interviews with a number of scholars working in the tertiary sector of education and who are concerned with researching and/or teaching the ethical and/or societal implications of ICT. Research for this setting has deliberately avoided looking at teaching since it is considered that would have been a relatively easy path of investigation to follow since in many instances teaching schedules include work not always chosen and organised by the academic and where course content is determined elsewhere. Rather the concern here was to pursue what is considered to be a more complex and difficult route by examining the relationship between research and alienation in order to develop a rigorous test bed for the notion of alienation since research activity is considered much more under the control of the scholar.¹²

The discussion opens with reference to those issues that motivate academics to engage in work focused on ethical and/or societal issues of ICT and continues by outlining the dominant features that inform academic labour generally so as to contextualise the findings of this research and to identify those significant issues that either facilitate or constrain work in this sphere. The next section looks at data obtained from the interviews to examine four aspects of scholars' activity, namely creativity, control of outcomes, collaboration and competition. The focus then shifts to using Marx's theory of alienation to interrogate the findings of the research to examine

¹² It is appreciated that where research is undertaken for funding bodies such as the European Union, the subject and process of research are often prescribed and require a commitment to follow a strict template.

whether this approach offers any explanatory power in a context such as that covered by this setting. The attempt here is to drill down into the experiences of these scholars to see if they resonate with the theoretical abstractions presented by Marx. As with all the other settings explored by the research undertaken for this doctorate, the intention is to let the participants articulate their perceptions of the world they inhabit.

As will be noted, the structure of this section is similar to that employed in Chapter Five, covering ICT professionals and in keeping with the spirit infusing this research endeavour, conscious attempts have been made to avoid using the data to provide a self-justification of theories of alienation. The Chapter rounds off by emphasising the main conclusions that can be drawn from this setting and points towards the issues to be covered in the next setting.

However, before starting the discussion, two points need to be addressed. There is a major difference between the work undertaken for this setting and that completed for the other settings selected for this research. For purely logistical reasons, it was not possible to convene a collective discussion, either live or virtual, with the participants about the issues covered here. Such a conversation, or even better multiple conversations, would, possibly, have generated greater layers of data that would have helped provide a finer level of understanding on the experiences of scholars. No doubt a collective activity of this nature would have also nurtured a self-generating analysis of the relevant issues particularly if they had been preceded by the participants engaging with appropriate texts (Stahl *et al* 2008).

The second comment is a restating of the remark made in Chapter 4.2.3 about the importance to this research arising from approaching the scholars and examining their position within the research environment precisely because their work is directly concerned with ICT. It is believed that the data generated by this part of the study and their subsequent analysis vindicate the approach adopted and, when placed next to the

other settings, help provide a balanced overview of the chosen theme. This section is in effect investigating the ICT researcher's experience of researching ICT and therefore contributes to helping to answer the research questions outlined in Chapter One.

6.2 Reprising the environment

However, before developing the discussion a brief reprise of the salient features that were outlined in Chapter 2.8 would be appropriate. The dominant trends that shape the higher education landscape on an international scale are concerned with standardisation and benchmarking, ranking league tables (where universities compete on both national and international levels), audit technologies, research assessment exercises, and increased class sizes; all of which affect the way scholars work. There are additional pressures arising from research imperatives which undermine traditional approaches to scholarly activity and which are informed by the need to buttress and enhance the competitiveness of a given economy as well as focus on income generation.

This indicates that academics researching ICT work in an environment which is subject to powerful external shocks that adversely impact on their working conditions as well as forcing through a reconfiguration of relationships within academia. However, at the same time the success of the neoliberal agenda in higher education, with its demand that intellectual endeavour be directed to supporting the prevailing economic formation, requires the persistence of a collective way of working. The argument will now briefly review a number of pertinent features of Marx's theory of alienation as it relates to this setting. This will be followed by a discussion on the scholars' commitment to their subject area.

6.3 Alienation: a review

Marx, in his presentation of alienation, argues that the “medium through which estrangement takes place is *practical*” (Marx 1970: 116); it is a lived experience with real, practical relationships between the things a person creates and relationships between people. Therefore since alienation is practical it is going to be expressed, in the first instance, in different forms given that it is mediated through the prism of different experiences. The notion of mediation is helpful in aiding a comprehension of the different forms in which alienation is manifested in different contexts and flags up three potential pitfalls when considering these issues.

The first is that an investigation following a compare-and-contrast approach can lead to a shallow analysis since it will be primarily concerned with comparing the outward appearances of alienation as expressed in two or more contexts rather than exploring the underlying impulses creating alienation within each specific context. The second potential problem can arise from simply expecting to find the same manifestations of alienation across different contexts.

This can lead to the third problem which lies in the possibility of collapsing the discussion to cover degrees of alienation, for example by considering if ICT professionals are more alienated than scholars. This approach does not really tell us anything about the core aspects of the alienated experience anymore than comparing the scorched skins of barbecued sausages tells you if they have been cooked inside. Marx by talking about alienation having a practical expression is perhaps anticipating these problems and seeking to avoid a view which includes an expectation that the form alienation is expressed in one context will necessarily mirror that found in another. Coupling alienation to the notion of mediation allows for the application of a general theoretical principle but recognises there may be significant differences in expressions of alienation. As has been argued in the previous Chapter concerned with ICT

professionals, alienation is clearly evident in their activity because of the way work is organised. For academics, particularly those who are primarily research focused, the experience is much more nuanced.

The discussion will now turn to look at a specific group of scholars, namely those interested in the ethical and societal implications of ICT, and will start by looking at their motivation for working in this area. In the following section F and M denote female and male respectively. E stands for an experienced scholar and R indicates a scholar relatively new into the area. US denotes United States, EU means European Union, AUS indicates Australia and SA means South Africa. Thus FESA would indicate the participant is an experienced female scholar working in South Africa. Where there is more than one person from a given country with the same profile, a number is used to differentiate between them; hence ME2US indicates male 2 experienced researcher United States.

6.4 Commitment to the subject

Scholarly interest and research in the ethical and societal implications of ICT have a long and distinguished pedigree and the intention is not to rehearse the history of the subject since this has been well covered elsewhere (Bynum 2000, 2011, Bynum and Rogerson 2003). Rather the purpose is to explore the reason why the interviewees in this setting were motivated to address a number of concerns over the way the technology has been developed and used.

Initially research into the ethical and societal implication of IT was limited to a number of IT professionals and philosophers but this activity was given constant impetus for expansion by the development and subsequent uses of the technology itself. One of the initial concerns of IT scientists stemmed from the problems associated with the US Strategic Defense Initiative of the mid-1980s. As one interviewee said, "*what me and other computer scientists in the US who did not see great research dollars lying on the*

table said...you don't know what you are talking about since we have enough trouble just printing bills" (ME2 US).

Concerns such as these also prompted an examination of the technology from a philosophical perspective which resulted in an ongoing conversation between practitioners and philosophers, later joined by social scientists; a conversation that developed as the technology changed and expanded. As the technology evolved so did the nature of the research since each technical development posed new and sharper challenges for those engaged in research thus pulling an ever growing circle of academics into its fold. Even as this section is being written there is a crisis developing in ICT ethics of monumental proportions as a result of a tsunami of revelations concerning PRISM, the US National Security Agency's data gathering operation and the implications for the integrity and security of personal data (Kuner *et al* 2013).

As well as those examining concerns over how the technology is being used, academics keen to adapt, develop and employ the technology in a socially progressive way are also drawn into the subject area. One participant commented "*I am interested because not much work has been done on ethics and ICT for rural development...I want to know why rural ICT projects often fail*" (FR SA). Another made reference to the help ICT could offer in the reduction of poverty. One participant commented that her concern was focused on governance issues associated with the way "*IT is planned, built and managed*" (FE AU).

A further spur to the interest in research in the area has been the availability of research grants awarded by various funding bodies, both public and private, and the development of corporate social responsibility programmes. In the latter instance, ICT companies are now required by law in some countries, such as those in the EU, to show a commitment to business ethics and compliance policies which results in the development of ethical training programmes. While the motivation for companies

adopting these processes can be located in the business case linked to the benefits of compliance and the need to avoid costly fines arising from instances of bribery and corruption, it has added further impetus to research in the field (Jones *et al* 2013).

Whatever the specific motivation or particular direction of interest, all the participant academics, including some who have been engaged in this area for many years, indicated a strong personal commitment to their work. For them, their activity was more than simply a means to earn a crust of bread or a passing phase. One interviewee put it this way “*Computer ethics has been excellent for me professionally and personally. It has really helped my thought process and I wouldn’t change any of that*” (ME1 US). A researcher relatively recent into the area said “*I feel it is also something that needs to be done and I am in a position to do so... no, no I don’t think I would change anything*” (FR EU).

This section has considered the commitment the participants have to their area of expertise and how they feel about their work. For them, researching the ethical and/or societal aspects of ICT is more than a research project; it is a personal commitment that seeks to reach out into the world and to influence that world in a positive way. As such it could be argued that this activity plays a significant role in defining who they are and their place in the world and underlines the view argued by Marx that work is simply more than a means of earning a living.

Having looked how important the subject research is to the scholars who participated in this setting, the discussion will now explore to what degree they feel their work is a creative process; this will be followed by looking at collaboration.

6.5 Creativity

One of the issues discussed with the academics concerned their perceptions of the creative nature of their research. Discussing the connection between creativity and work was considered a valuable point of departure when investigating alienation and

scholarly activity for two reasons. The first is that it relates to Marx's idea of work being intrinsic in helping to fulfil what he calls our species being. In his scheme of alienation, work, under the current economic formation, ceases to confirm our nature and instead of being a positive, creative and life affirming experience, is a negative and undermining condition. Creativity is normally regarded as a satisfying activity and therefore considering this aspect of scholars' views of their work could provide an effective examination of alienation. The second reason was that the discussion on creativity provides a useful reference point from which all other aspects of scholars' work can be measured.

The interviews undertaken for this setting identified three ways in which they believe they are creative: first there is their general view about the creative nature of their work; second, their perceived need to produce meaningful and influential outcomes; and finally their need for creativity in conducting the research process. Each of these aspects will be considered in the following sections.

6.5.1 Research as a creative activity

All the scholars were asked if they felt their work was creative and, irrespective of either being an experienced or recent researcher in the field, they were remarkably consistent in their attitude towards the creative nature of their work; they all indicated that they consider what they do to be creative. For them "*being creative means making something that wasn't quite there before*" (FE EU). Making connections that perhaps have been overlooked before which is a process of "*synthesizing and making connections*", makes the work creative (ME2 US).

For them it was specifically about exploring work in other areas and applying it to ICT. As an example, one relatively new researcher said "*I am at looking actor network theory...and...value sensitive design... and relating them to a capability approach*" (FR EU). This general view was supported by an experienced researcher who commented

“A creative approach means taking what has been applied in other domains” and utilising it in a different context (ME EU).

The creative element is considered important even where the researcher is aware of her limitations in terms of originality. As one interviewee commented *“Little of what I do is original but taking what has already been done and applying it to technology is creative...is a wonderfully creative, imaginative and intellectual thing to do”* (ME1 US).

Referring specifically to ICT and ethics a number of the participants said that the subject itself allowed room for creativity since *“ethical and societal issues of ICT have been overlooked...there is a need to look at ICT from a new perspective. This area allows for a lot of creativity”* (FR SA). This echoes the views of another participant who said it is *“very much a creative process because it is a relatively new field compared to say medicine...not a lot has been done in this area...room for creative work, looking at emergent technologies and relating ethics to them”* (ME3 EU). Another interviewee put it this way, *“The intention of research is to create new knowledge and add to the existing knowledge base... My gut feeling is that what I do is creative. I wouldn't be doing it if I wasn't”* (MR EU).

From the foregoing comments it can be seen then that creativity plays an important part in the motivation of the scholars who were interviewed for this study. For these scholars, the space to engage with a creative impulse should form part of their everyday activity which supports the notion proposed by Marx concerning the importance of labour to the worker. The following sections will consider how this notion of creativity relates to the practical outcomes of their work.

6.5.2 Creativity in outcomes

For all of the scholars who participated in this study, it was important that their work realised tangible benefits. This is not surprising given they are concerned in one form or another about the relationship between society and ICT and their concern to

influence that relationship. Thus they share a collective view that their creativity had to be expressed in a concrete manner. In the first instance, the tangible product could take various forms such as, for example, the creation of a framework governing the use of ICT; a publication such as a report; a course of academic study; the creation of communities, such as that which has developed around Ethicomp, societies, and journals, directed at broadening and deepening interest in the topic; the production of a specific ICT product; and a system valuable to end-users. The last two were seen as particularly important for scholars engaged in research related to ICT for Development (ICT4D). For some of those more closely allied to ICT and ethics, the creation of, for example, codes of ethics was considered important. In some instances, the audience for these outcomes existed outside of the academic community, with for example one of the participants regularly writing a column for a technical magazine; another undertaking speaking assignments for large multinational ICT companies; and others being engaged in linking ICT to rural development. The motivations described here strongly echo some of the comments Marx makes about our species being in that we seek to change the world to make it more fit for living but do so in a creative, contemplative and reflective manner.

However, as is also the case for all researchers, the participants were extremely sensitive to the need to produce publications such as conference papers and/or journal articles and this was considered a critical aspect of their work. One very experienced scholar referred to a “*very creative*” paper written some time ago that has since been taken up in some parts of the subject area. He added that he believed his location, in Europe, allowed for greater creativity than has been experienced by academics working in the US (ME2 EU). This production of intellectual artefacts was seen by all participants as being of critical importance for their sense of self-worth. Even where research programmes result in a product for an external body, such as a funding body

requiring a final report, or a piece of equipment, researchers believe that the publication of journal articles is central to their role.

However, much of the product of this creative endeavour is directed at other academics since journal articles and conference papers tend to be read only by those active in academia. In this respect, researchers in this field are no different to those working in other subjects. So, as Jones argues, unlike the artist who produces for a general audience, academics create artefacts for their peers within a relatively restricted community consisting of people “who are familiar with the discussion that led to the work at issue and who, consequently, understand the presuppositions and assessment-criteria upon which the claims being made are based” (Jones 2013: 82).

The above discussion indicates that creative activity is seen by scholars as a vital part of their work and is seen by them as being expressed in a concrete form. The following section looks at how creativity is applied to the research process.

6.5.3 Creativity as a requirement for the research process

For some of the respondents, creativity is a condition for undertaking the act of researching; it is integral to the activity. As one contributor commented there is a “*need to be creative, to find novel aspects of a problem...creative to define a research problem and to do something and to find an answer*” (ME1 EU). This view was echoed by the views of another scholar when she said, “*I am going down avenues that people have not been before...I am approaching things in a different way...I am creating an alternative*” (FE EU).

As section 6.2 above indicated, a significant amount of research is currently being undertaken in a collective environment with research proposals often requiring teams of academics to collaborate to initially write and submit grant applications and subsequently undertake research. This environment also encourages scholars to apply their creativity beyond the production of specific outcomes discussed earlier and is

seen as a key component of the work process in which these scholars are involved. *"You need to be creative"* because there is a real need *"to collaborate, to share data...and to make things happen"* (FE EU). Creative problem solving is also seen as an important element in developing solutions to problems that may be encountered in their activity. In particular the participants identified the challenges evident in trying to get end-users, technical experts, and academics working effectively for the same objective. Creativity of process is therefore seen as an important requirement to achieve outcomes.

As can be seen then, the notion of creativity runs like a gold thread through the actions of the scholars who participated in this part of the study. They were also aware that much of their work demanded collaboration with others and the discussion now focuses on this aspect.

6.6 Collaboration

All but one of the participants indicated that they considered their work to be of a collective nature in one form or another. For some, the collective aspect referred to drawing on the previous work of other contributors to the field. As one participant said *"I always say we stand on the shoulders of giants. You cannot write something interesting if your work is not embedded into a particular framework"* (ME4 EU). Most referred to a peer review process, either informal or formal. *"I have not written any paper that I have not shown to someone else...so it is collective"* (ME2 US). The positive aspects of collaboration were emphasised by a number of the interviewees as indicated by one of the scholars, *"this is a collective process...within Europe it is very collective...people don't want to re-invent the wheel"* (FE EU).

A further comment related to the sense of belonging to a wider community *"I have the feeling I am not alone in getting this process across"* (FR EU). This sense of community registered strongly in many of the contributions with one interviewee saying: *"I rarely*

write something by myself anymore...I am always collaborating" (ME1 US) and another commenting that *"all my work is done jointly with students...and I collaborate with other academics"* (ME3 US). Most of the scholars interviewed for this setting would support the view that research in a collaborative environment is a positive experience with two saying: *"I have a fantastic collaborative environment"* (FR AUS) and *"Most of it is collective. We work in teams with universities or students or supervisors... Whenever we are involved in a project it is usually a huge team"* (ME3 EU).

For some, research can only be successfully undertaken within a collaborative environment. As one participant said, *"the whole idea of research only works as a collective effort...nobody can do it on their own. The individual has a role... [it] becomes important if it is part of a collective endeavour"* (ME EU). This is an interesting comment because it hints at the notion that individuality can only be expressed in relationship to a wider collective environment.

For some participants, collaboration played a fundamental role in the development of a supportive, nurturing context within which research could be undertaken. Here the Ethicomp conference and its supporting infrastructure were cited as being an example of a positive and inclusive milieu which seeks to address the key issues relating to the ethical and societal issues of ICT while encouraging, embracing and valuing new researchers in the subject. The comments of the participants in this section of the study provide a strong resonance with the co-operative nature of work identified by Marx in his discussion about alienation

The evidence presented thus far describes a condition where for these scholars their work appears to be a life-affirming, creative and collaborative experience from a number of perspectives and as such they are prepared to make a considerable personal commitment to the research. The evidence seems to be at odds with the argument advanced by Marx. However, in applying Lukács's formulation of totality,

mediation and immediacy, there is a need to zoom out and to place this activity in a wider context and to consider whether this broader environment has a positive or negative impact on the way scholars see their work. The following sections seek to explore issues such competition, as it appears in various forms, the publication environment, institutional pressures, and control of the research agenda. The discussion opens by looking at academic competition and then moves on to consider the other issues.

6.7 Research and competition

As has been discussed immediately above, scholars consider that creativity and collaboration play an important role in their work; indeed it is seen as a necessary requirement for them to engage in research. However, this creative and collaborative engagement takes place within a wider context whose broad characteristics have been outlined in Chapter 2.8. The conversations with the scholars indicated that they are sensitive to this wider context and are aware that it impacts on how they go about their work. The interviewees for this setting identified how competition is evident and influential in specific areas of activity, some of which had not been anticipated in advance of the data gathering. The areas identified by the interviewees where competition had a significant influence were: funding, publications, on relations between institutions, within institutions, within the subject area, and with other subject areas. They also spoke about the impact competition had on their activities. It is these aspects that are discussed in the following section which opens with a reference to funding.

6.7.1 Competition for funding

For all researchers, access to funding plays four vital roles. In the first instance, researchers depend upon the allocation of funding, which can take various forms, to provide resources for their work. In addition, successful access to funding forms part of

the criteria with which the worth of a researcher is measured, both formally and directly, say within a given institution, such as the allocation of research hours and in considering applicants for appointments, and indirectly as, for example, in determining who would be a worthy partner for projects both internally and externally. Thirdly, winning funding imbues the successful applicant with a credibility that can be cashed at a later date for further funding. Finally, and this is particularly so for research centres, it binds researchers together under a particular research agenda, often of an international nature.¹³

However, as research indicates (Rodríguez, and Zaballos, 2013) the quest for funding is undertaken within an environment that is increasingly competitive as funding for research has experienced considerable cuts in recent years.¹⁴

One experienced researcher who eventually moved from an intensely competitive environment recalled that one of his previous workplaces “*was a very competitive environment...[at two others there was a] great scramble for grantsat another we were constantly talking about where the next grant proposal was coming from... “* (ME3 US). As the following comment indicates, this environment has a directly adverse impact on researching the subject area. “*One of the most effective computer ethicists...uses his spare time writing on computer ethics because... he is required (by his institution) to get large scientific grants...it doesn't help him when there is this competition model”* (ME2 US).

¹³ A good example of this process is the recent research contracts awarded to the CCSR at De Montfort University and the University of Twente in the Netherlands.

¹⁴ For example, as part of an examination of socially responsible investment Rodríguez, and Zaballos, (2013). detail that funds allocated for research in Spain in 2012 had, compared to 2009, been cut by 34%. These two dominant features, cuts in funding and increased competition, Fang *et al* argue, have had an adverse impact on the quality of research and play an important role in the significant increase in retractions of published papers (Fang *et al* 2012).

Not all participants have encountered the scramble for funding. As one interviewee commented *“I have not had any problems with competition funding because I produce papers... [but before]...it was a problem getting an organisation to fund me.”* However this comment was quickly followed by a reference to the difficulties in getting access to funding in his home country. *“In my country if you are not linked to someone very powerful you have no chance of getting a grant”* (ME2 EU). This experience was at variance with all of the other scholars who discussed this issue and many would concur with the sentiment expressed by two scholars when they said that *“In one way...all research is competitive...you compete to get funding from different agencies”* (ME SA). and *“There are certainly limited resources...amounts of time and funding from national agencies...”* (ME3 EU). Having looked at competition for funding, the discussion will now shift to consider the competition involved with publications.

6.7.2 Research and competition to publish

A great deal has been written recently on the problems associated with getting published and, as was mentioned earlier, all the scholars interviewed for this study felt that publishing papers was a key aspect of their work. One recent researcher in the field said *“Competition relates to publications...getting the word out...getting your publications known”* (FR SA). Her immediate concern was to disseminate her research as widely as possible yet, as another participant from her region notes *“In my country there is only one set of peer reviewed journals and resources are affected by who gets published”* (FE SA).

These two quotes neatly summarise the problem facing any scholar seeking to reach out into a wider academic circle. *“Because there are a limited number of publications and spaces this leads to competition”* (ME2 US). Publication is critical for the diffusion of research results and also directly impacts on decisions affecting the distribution of research funding. The problem is compounded by the self-perpetuating hierarchy of

journals in terms of ranking. The higher the ranking the more difficult it is to get a paper accepted by a journal thus increasing the intensity of competition for as one interviewee said, *“Getting into certain journals is highly competitive”* (ME1 US).

The impact of this environment on the mood of the scholars, particularly those new to the subject, is summed up by one participant when she asked *“Have you not heard of publish or perish?”* (FR EU). The hierarchy of journals is matched by the hierarchy of authors for, as one contributor said *“If your name in the field is known, there is normally no problem to get published. If your name is not known...it is very difficult to get published”* (ME2 EU). He went on to say that a paper that had been rejected sometime ago would now be accepted because of his reputation in the subject.

6.7.3 The peer review system

A key aspect of publishing is the peer review system and all of the participants in this part of the research study had experienced peer reviewing in one form or another and views on peer reviewing were mixed irrespective of whether they were recent entrants in the field or experienced researchers. Talking about peer reviewing for journals, two scholars commented *“Usually I am quite happy with it...it is helpful...my experience generally is that they [reviewers] are helpful”* (FE SA) and *“most of the time I appreciate the value added by the reviewers.”*(ME1 US). Another commented that she found the system *“valuable and sometimes you get excellent feedback and it helps you improve.”*(FE EU) and one other said *“Sometimes it was really helpful”* (FR EU).

However, almost all of these comments were qualified to one degree or another. *“I mean sometimes you are frustrated by reviewers’ comments...”* (FR EU). Another explained that *“You are assuming that it is an expert who is doing the review...and has an overview of the field...this is utopian now because... it is impossible for someone to have an overview of all that is produced”* (FE EU). A further contributor remarked that *“sometimes the reviewers are not a match with the topic”* (FR SA). Rejection of a paper

is not a light matter for these scholars for as one experienced researcher in the field said *“Some of the time I think it is unfair and incorrect and I take it personally”* (ME3 US). To this he added *“Getting accepted is a big deal. Even at this point in my career I still get rejections and this is still discouraging”* (ME3 US).

Overall the participants felt that the idea of having their work reviewed by their peers was a beneficial activity and the general view of these scholars towards the journal peer review process was summed up one participant when he said *“I feel about the peer review process the same way I feel about the job interview process...they always do injustices and yet they are necessary”* (ME3 US).

If the peer review system for journals appears as an imperfect and yet necessary process, project reviewing was seen as extremely problematic by one participant with experience of projects as this extended quote indicates:

When it comes to project review this is a different story...it is of a very low standard and not really serious...from within the European Union...there is pressure not to be too critical...there are lots of problems with this review process. (FE EU)

Given that substantial sums of funding are now available for projects concerned with ICT emanating from the EU and given that these projects include a wide range of researchers, the weakness in the review system identified by the comment immediately above has consequences for the quality of research. Having considered aspects linked to the competition involved with funding, publishing and peer review, the discussion will now briefly consider other forms of competition identified in the interviews.

6.7.4 Other forms of competition

So far the discussion on competition has focused on funding, publication and peer review. However, competition exists in other guises and this section touches upon three identified during the conversations with the interviewees, namely competition between theoretical approaches, academic societies, and disciplines. Scholars concerned with researching the ethical and societal implications of ICT, like academics

in other disciplines, draw upon an array of theoretical perspectives to inform their investigations and individual researchers can focus on a particular aspect. In the specific context of ICT ethics, one experienced scholar said *“I push practitioner ethics...others take a more philosophical perspective”* (ME2 US). There is tension between these two broad approaches which has been exacerbated by the expansion of interest in the area.

In discussing the globalised nature of the subject area an experienced scholar referred to a possible competition for a hegemonic position within the field and remarked that we *“might start to see clear competition between approaches...competition between...Anglo-American and...Continental Europe and Australia on the one hand...and the Islamic countries and China and India on the other”* (FE1 EU).

One participant noted that this growing interest has led more academic societies to become concerned with the subject thus creating competition for resources, including people. He added, *“...we don’t always play nicely with each other”* (ME1 US).

A further area of competition mentioned by the scholars related to competition between disciplines and the pressure this creates in undertaking particular forms of data gathering. As one researcher said, it is *“a competitive process in terms of other areas of research...for example...economics... [and the] ...pressure to get more quantitative data”* (FR SA).¹⁵ Having looked at some of the competitive aspects of research in this field, the discussion will now turn to look at the impact of a competitive atmosphere.

6.7.5 Competition: positive and negative impacts.

This section looks at the differing perceptions of the participants on the significance or otherwise of the competitive environment. For some competition was seen as being

¹⁵ This touches upon the debate concerning empiricism in research, including qualitative research and publishing. Recent contributions to this debate can be found in Stahl (2013)., Walsham (2013).

beneficial, for example, being an important component in safeguarding quality; as one scholar commented *"I want competition to be there as a sort of guard against fluff passing as good ethics"* (ME3 US). This view was supported by two other interviewees who remarked that *"I do think that competition can lead to better quality."*(ME2 EU) and *"I do see the merit in competition as driving up...quality"* (ME1 EU). Although the latter scholar qualified this comment by adding that *"perhaps this is too simplistic."* Another participant said that she enjoyed this environment. *"That is to me one of the reasons I am here. I like to work under stress"* (FE SA)

However, the comments from most of the participants were critical of the environment. Some identified competition as leading to exclusion with two participants remarking that *"There are certainly people who are left wishing they had more interaction and influence"* (ME3 US) and *"I am starting to learn to be careful with people I don't know about sharing ideas...I limit now to working with a smaller group of people that I know and can trust"* (FR EU).

The grant tendering process, discussed above, deepens the exclusive impulse and has consequences for academics looking to develop networks and relationships; as one interviewee said *"You have basically to win...so there is competition and you choose who the best partner is"* (RE EU). What is being highlighted here is that well established researchers or (increasingly) research centres are preferred to relatively less well known scholars even if the latter have greater expertise in the subject area. At the same time, the pressure to develop a high profile produces contradictory tensions for scholars that undermine the collaborative inclination for, as one participant said, *"Perhaps people who are younger and less well established...cannot afford to be too collaborative"* (ME1 US).

The choices made when deciding to publish research papers are strongly influenced, in a number of ways, by the competitive environment. Describing the situation in this

context, one scholar said *“In terms of getting into journals it is highly competitive where some journals have a 5% acceptance rate”* (ME1 EU). He later added that these *“are just different types of conditions that influence my behaviour.”*

A number of the scholars had doubts about how effective competition was in pushing up the quality of research. A more recent entrant into the field said *“What you have in journals is not a measure of your work for society or how much you have helped stakeholders”* (FR EU). They are also aware that often their work and the work others produce are not of an original nature for as one of the participants said *“The idea of publish or perish is for me is something quite bad because I think that only creative papers...saying something new should be published”* (ME2 EU).

Competition also has subtle, self-regulating results. One participant in talking about his research output said *“I certainly have made arguments that deep inside myself I would have made differently, on the basis that I knew that if I didn’t do otherwise the work would not go through the peer review”* (ME1 EU). It is important to recall at this point that the discussion concerns scholars who are deeply interested in the ethical and societal aspects of ICT and this particular researcher was referred to earlier as a supporter of competition. However, as the quote indicates, the pressures of competition compromise intellectual integrity.

The notion of creativity is also undermined by the competitive environment. As one interviewee said *“The problem is that when you have so much pressure to publish you cannot publish something creative all the time so you have to publish something quite average...not something particularly new”* (ME2 EU). The process being described is one where scholars have to be published and are prepared to self-impose censorship on the intellectual core of their work to meet the demands of a given journal and knowingly submit work they feel is of an inadequate standard.

The implication behind the sentiments expressed above is that competition does have a significant negative impact on the quality of intellectual endeavour since it both fetters the scope of research (it has to fit with the demands of the preferred journals) and leads to the recycling of existing ideas.¹⁶ Furthermore they imply that the competition to publish denies the possibility of judging the significance of research using other criteria. Competition also has a negative impact on the collective nature of research and here not all of the participants felt the collective effort was beneficial. One researcher working in Europe said *“Doing the research individually but listening and getting comments from other researchers...projects create the need for a more collective approach...[this] can be negative...it would be better for individuals to get research money”* (ME3 EU). One indicated that she preferred to work alone *“I have very little collaborative work... Philosophers are usually loners, right?”* (FE EU). Another hinted that collective work can disguise individual contribution. *“The most recent work was part of a team...we published as a team but I did all the work...I had the time...they had the grant...”* (FR AUS).

Competition results in winners and losers and as one scholar remarked *“I think that the people who are at the top of this field have won this competition”* (ME1 USA). However, for those who have *“won”* they have to keep winning and this is not a given and there are continual reminders of this. One experienced researcher said that the competitive nature of research becomes evident *“every time you get rejected for publication be that a paper or proposal”* (MR EU). This is also the experience of emergent researchers for as one participant commented *“entry level researchers do consider it to be competitive”* (ME3 USA).

¹⁶ The pressure to publish has also led to an increase in the number of journal article retractions because of fraudulent data or resubmission of existing work in another guise.(More information on retractions is available from: <http://retractionwatch.wordpress.com/>)

In talking about how she felt about the competitive nature of the activity, one scholar said *“I struggle with that personally quite a lot...the tension between scientific goals of the university and social goals is very stressful...”* (FR EU). Another articulated a view that sailed close to the cynical and resigned when he said it is *“part of the game”* (ME1 EU). Having looked at issues arising from the competitive nature of the research environment, the discussion will turn to consider to what degree scholars believe they have control over the outcomes of their work.

6.8 Control of outcomes

This section looks at what control scholars believe they have over what happens to the outcomes of their research and will open by discussing how much they felt they were in command of how their research is used. It will then move on to consider aspects of ownership of outcomes and conclude by outlining how scholars feel about the problems associated with control of outcomes.

6.8.1 Control of content

In the conversations with the researchers they made a clear distinction between what they produce and what control they have over how their final creation is used. Thus one very experienced researcher said *“I have enormous control over what I am writing”* (ME2 US) and this was supported by another interviewee who remarked *“I can produce anything I want now”* (ME2 EU). However, as has been mentioned above in the section dealing with competition, the final outcome can be influenced by a self-censorship process with papers being tailored to meet the specific demands of a given publication. These comments link into the discussion Marx makes about alienation in that they indicate that for these researchers they are in control of their work, whereas the objective context, as discussed earlier, creates an environment within which overarching imperatives drive the research agenda.

6.8.2 Control of product

In other contexts control of outcome can be quite overt; a number of other scholars in considering the outcomes required for externally funded projects said that in these instances the outcomes can be predetermined. Thus as one remarked *“It depends on who you work for...if the purpose and objectives are given to you at the start of the project you have less control over the research because you only give the results they want”* (FE SA). This does not mean that the scholars simply write what the funding body wants to hear, but that the scope of the research is constrained. As a result other aspects are ignored, even though they may be considered by researchers to be worthy of investigation and directly related to the specific study.

While there were differences of view over what control they have over the content of the papers, for example, they may write, there was a near unanimous view among the scholars interviewed about how much control they had once their work went out into the world. In discussing this aspect, comments such as *“Very little to tell the truth. You know when you produce these documents you basically submit them to the [fund provider]... and that is really it...we don’t have any real influence...we finish a project and say goodbye...”* (ME4 EU) and *“to be honest, I don’t think we have any control over how work is used...”* (FR SA) as well as *“little. Certainly academic research gets published and then whatever happens, that is out of your control”* (ME2 EU) were common.

6.8.3 Lack of control: Consequences

As the comments above indicate, scholars are extremely sensitive to the lack of control they have over how the papers and such like they produce are used. The conversations with the scholars also revealed a deep sense of regret over this situation. One developing researcher said that *“this can be quite disheartening because...the result of hard work...is just brushed off and not really applied”* (FR SA). This

perspective was echoed by another who remarked *“After I have finished and published and tied it all up...there it sat which was a great pity...”* (FR AU).

These sentiments were shared by the more experienced scholars one of whom observed *“I don’t have any control over how that report is used. As a researcher there should be some way to control or inform yourself how these things are used”* (ME4 EU). One participant noted that this lack of control may have an impact on future research and she said that *“...I think the issue is interesting... I have been thinking about it in terms of the ethics of this and how you, down the production line...flag up areas for the people who are coming up next”* (FE2 EU).

This section has discussed the issues emanating from a situation where scholars feel they have very little control over how their outcomes are used once they have been made public. The next section looks at the institutional pressures to which the scholars who participated in the study are subject.

6.9 Institutional pressures

Although all but one of the participants experienced a degree of institutional pressure to engage in research and to publish that research, not all experienced the demand to the same degree. It was noticeable that those scholars who were nearing retirement or who had retired believed that the demands from their academic institution took the form of a light touch.

For others however, there was intense pressure from their institution. Most remarked that they were required to publish and generate external revenue from funded projects and such like. One was quite specific about the form this took:

...we get measured every six months using key performance indicators and if you do not comply out you go...they put pressure on you to produce outputs...I have to produce five peer reviewed journal articles per year and at least 10 conference proceedings...students make this easier...(FE SA).

She went on to detail how a *“journal article is rated at 1 point, a conference paper is 0.5...and a book is valued at 5”* (FE SA).

Many of the scholars interviewed also teach which creates conflicting demands for as one remarked *“there is a perception that...we will need to teach better and at the same time we will need to do research...the entire sector has become more stressful”* (ME 1 EU).

Having outlined a number of key themes arising from the research findings of this setting, the argument will now move on to an analytical discussion of the data. This will open with a reference back to Marx’s notion of alienation.

6.10 Analysis

Since this research is concerned with testing the explanatory power of Marx’s notion of alienation, the issue to be considered is to what extent does his theory help understand the activities of the participants in this particular setting. Marx talks of the creative nature of mental and physical labour and how this is undermined by work in capitalism.¹⁷ Some of the comments made by the participants indicate that they firmly believe their work to be of a creative nature. Further, they are all committed to the subject area and, to varying degrees, see their work as important and all would like to see their work as influencing and contributing to developments in the field; for them their work had to result in tangible benefits. In addition, they spoke in positive terms about drawing inspiration from the work of others both past and present, and the nurturing, collaborative environment in which they would like to work. Moreover, they see the work they undertake as being an important element in defining who they are.

¹⁷ He also discusses alienation in other economic formations. For further discussion on this issue see Sayers (2011).

It would seem therefore that at first sight, the experiences of these scholars are at variance with the analysis of alienation as presented by Marx in that their work seems life-affirming and collaborative in its nature, to be embraced rather than rejected, and engaging rather than alienating.

However, as the conversations with these scholars progressed, they revealed a deeper set of underlying sentiments that expressed a cluster of contradictions which presented real challenges for them. The evidence indicates that these contradictions revolve around four specific themes: the significance of the work they produce; the control of the things they produce; the increasingly competitive environment in which they work; and finally, the compromises they make to be successful participants in the competitive “game”. The following discussion looks at each of these issues in turn.

While it is clear from the interviews with the scholars that they would wish it to be otherwise, they know that ultimately the worth of the things they produce is not determined by whether they lead to positive, tangible benefits for society. The scholars know that their research output is the currency, the cachet, which opens access to further resources for research and/or help to develop an academic career. And that currency is measured by things such as publications in high ranking peer reviewed journals, citations and participation in grant winning teams. Thus their research is valued only in so far as it can be exchanged for something else.

This immediately raises a number of issues linked to control of outputs. The first is how much control academics do have over the process that determines the importance of their work and the evidence from certain aspects, such as publishing and funding for example, indicates that scholars have very little control over this process.

For journals, few academics have an input into determining the ranking of a journal and none of the scholars interviewed indicated that they had played any role in this context. Thus the prestigious nature of a given journal is decided by the “other” as is the

publishable worthiness of a given paper. The peer review system operates in tandem with the ranking process so that when a paper is peer reviewed, the scholar takes the criticisms and uses them to make the paper more publishable even if, as was hinted during the conversations, this alters, if only partially, the authors original intent. The goal is now to get published. Thus the process distances these scholars from the original motivation they described thereby creating a conflict between the original intent and the need to be published.

A second issue relates to the employer for while the “other” making decisions upon the publishable worth of a research paper are often remote, the employer is not. For a number of the scholars interviewed for this study, their employer has little, if any, view on the impact a piece of work may have on society as a whole. The employer is solely concerned with the institution’s research profile and this is measured by research assessment exercises and so forth. These pressures constrain what the researcher chooses to investigate; how the investigation is conducted; how the findings are presented; and the frequency of publication.

And it has further, deeper ramifications for it displaces the importance of the researcher’s significance of her own work and confirms the value judgement of someone else, be it the publisher; the quality assessor; or the institution; i.e. people and organisations over which the scholar has no control.

The interviews show that all participants are aware of these tensions and that most find it stressful. A small number such as those who have retired or are close to retirement and/or some of those who have been involved in researching the subject for a lengthy period indicated that their direct, immediate experience of these tensions had diminished.

A third issue relates to the distribution of research funds which tend to go to tried and tested institutions and academics. The tendering process encourages institutions to

develop close relationships and collaboration with others who are most likely to influence the providers of funds. It also means that funding bodies have much tighter control over the research agenda since both general applications for grants and tendering for specific funds have to dovetail with the imperatives of the grant provider, which, for example, in the EU is focused on strengthening the knowledge based economy. These developments encourage the emergence of a research hierarchy of organisations, people and ideas, and strengthen a restricted view of what is considered valuable research.

If the process is one which undermines the researchers' notion of value, what control do they have over the work they published? The remarks contained in the interviews made it clear that for these scholars they have no control over how their work is used once it is published. The article or paper or book or chapter goes out into the world and there is virtually no possibility of determining its impact or indeed its subsequent republication. As was noted in section 6.8.2 above, this is of some significant regret for the participants in this setting. The lack of control over both process and product are primary conditions for the theory of alienation advanced by Marx. In what appears at first sight to be the creative and, to some degree, autonomous work of the scholar, it belies a deeper reality in which the scholar is in constant conflict arising from a range of contradictory pressures.

Having looked at the issues associated with process and control, the analysis will now focus on the consequences of the competitive environment. The data gathered from the participants reveals the extremely competitive environment within which they work. While some feel this condition is of some merit, most believe that it undermines research activity in general and their own work. It also has implications for relationships with other researchers. Apart from the obvious point that other researchers are seen as competitors for resources, the interviews reveal that the adverse impact of competition

on relationships operates at a more profound level. Competition engenders fear of other researchers and encourages a lack of trust arising from the possibility someone else may steal an original idea. At the same time, the nature of competitive research requires that people work together in teams. Instead of the open and collegiate atmosphere sought by scholars, a contradictory set of relationships is established based on the need to be both competitive and collaborative, yet guarded, in the same moment. Thus the collegiate impulse which the scholars seek to employ in their relationships with others working in the field is undermined by the competitive context in which they work.

As has already been noted, the scholars in this study have a strong commitment to their work, yet as the discussions also reveal, the pressures arising from competition contribute to an environment in which intellectual integrity is jeopardised and requires the imposition of a self-censoring way of working. This self-imposed censorship is the practical expression of a conscious self-alienation since scholars are aware of the compromises they are making in order to become known in the field.

In making these compromises, their actions contribute to the continuation of a system they recognise as flawed, and over which they have little objective control. As a consequence academics participate in building and perpetuating instruments of their own alienation. The evidence also indicates that for a significant number of scholars involved interviewed for this setting, dealing with the adverse environment they experience requires adopting coping strategies that involve a denial of preferred ambitions and priorities. It is reasonable to describe this as matching the notion of self-alienation. Further, if it is a reasonable conclusion that researching ICT is an alienating experience, then the product of that research will require viewing from a perspective different from that currently adopted.

This analysis confirms the view that the key components of Marx's notion of alienation; i.e. alienation from product, process, others and oneself, can be used to examine and explain the condition of scholars who participated in this setting. The evidence presented also indicates that while the manner in which this alienation is manifested is mediated by specific particulars, there is a shared, overarching experience which influences the work of the scholars and which leads them to be alienated from what they saw as a life affirming activity.

A further point of note is the attitude of the scholars to the notion of creativity both in product and process. In their responses to the questions on creativity during the interviews, the scholars were very clear about how important creativity was in their activities. However, when the questions began to focus on the determinants of both product and process, a picture emerges where the notion of creativity is undermined by the overarching imperatives of the academic industry. This raises a number of questions concerning the space for creative, perhaps non-alienated, labour generally and within academia specifically, as well as focusing on creativity in researching alienation (McGuigan 2010, Woodhouse (2011, Wright *et al* 2011).

6.11 Issues of validation, reliability, bias and ethics

As was mentioned at the close of the previous Chapter, issues associated with the validation, reliability and researcher bias need to be addressed. The construction of the interview schedule for this setting was informed by Marx's theory of alienation while also allowing a degree of flexibility to facilitate an exploration of those issues raised by the participants. Therefore while it may be the case that every researcher has some influence on her research, such influence in this instance was minimised by strictly adhering to Marx's categories in his theory of alienation.

Assessing the reliability and validation of the data gathered for this setting presented a challenge. As was the case with the Chapter concerned with ICT professionals, a

complete version of this Chapter was sent to the scholar participants for their comment. However, unlike the ICT professionals, none of the scholars responded with comments on the text they had been sent apart from one asking to be sent a copy of the bibliography. Thus reliability and validation relied on two processes. The first involved an exploration of consistency of responses across the cases which indicated that on many of the issues discussed, the participants shared a range of similar views thereby enabling a move towards analysis. The other technique employed concerned a re-interrogation of secondary research. This confirmed that the issues raised by the participants are to be found in current research covering similar ground. The internal consistency within the interviews and their strong echoes of similar themes researched elsewhere support the view that the data gathered within this setting can be describe as reliable and valid.

There was only one specific ethical issue that needed to be addressed in the research undertaken for this setting; that associated with anonymity. As with the setting for the ICT professionals, I gave a firm commitment that the anonymity of the participants would be respected and confirmed that I would not be prepared to comply with any request to provide specific, identifying details of the participants even if this were to mean that the thesis would not be submitted for examination. In the event, a two of the scholars indicated that they would be quite prepared to be quoted if it was felt that was necessary. All participants consented to the recording of the interviews.

6.12 Conclusion

This part of the research has sought to explore the views of scholars concerned with the ethical and/or societal implications of ICT to test whether the analysis of alienation presented by Marx is of any help in helping to understand their condition. It has focused on both the processes and products of research and considered these within an overarching framework of intense competition. It also made reference to changes

that researchers appear to undergo as they go about their work as well the relationships in which they need to participate.

The evidence presented in this Chapter indicates that Marx's notion of alienation has much to offer by way of understanding the day to day experiences of the participants of this setting. The act of engaging in the research process is a contradictory one. It enables the scholar to engage in work they deem stimulating, fruitful and beneficial in a creative way. Yet the act of researching changes the researchers and, as has been argued above, the pressures arising from the competitive research environment mean these changes are, certainly for most of the participants in this setting, strikingly negative in one way or another. As such it has implications for the way in which the outcomes of their work should be considered.

While the focus here has been on research, studies relating alienation to education could encompass more recent developments such as the provision of Massively Open Online Courses (commonly known as MOOCs) which are free, publicly-available classes with normally with high enrolment (Rees 2013). Some of the issues that could be explored here could investigate alienation among academics involved with MOOC; the experience of MOOC students; the experience of the technical staff involved in supporting MOOCs; the motivation of MOOC providers and the competition between courses, institutions and academics working in the MOOC environment.

Similarly, relating Marx's theory of alienation to the debates concerning the development of an academic commons may add a further dimension to these discussions. The next Chapter looks at the views of both the ICT professionals and scholars with regard to a specific aspect of Marx's theory of alienation, namely their attitude to work in general.

Chapter 7: Alienation and work: a common view

7.1 Introduction

The previous two Chapters have explored the significance of using Marx's notion of alienation in two settings concerned with work and have established that the theory can be used to bring to the surface a range of pertinent insights into the lived experiences of the participants. However neither of the Chapters has explored what the participants felt about their work *per se* and this needs to be considered since one of the main conclusions Marx makes is that, given the alienated experience of people at work as soon as there is no need for people undertake paid employment, they would stop work (Marx 1970: 111). As he says, labour "is therefore not the satisfaction of a need; it is merely a *means* to satisfy needs external to it. Its alien character emerges clearly in the fact that as soon as no physical or other compulsion exists, labor is shunned like the plague " (Marx 1970: 111). This Chapter seeks to correct this omission by investigating this issue and to establish whether the ICT professionals and/or the scholars would continue working if they had the opportunity to stop.

To facilitate an exploration of this aspect of alienation, the following discussion focuses on the responses of both the ICT professionals and the scholars to two questions asking participants to reflect on their work experience. The first sought to examine what changes they would make if they had the opportunity to start their careers again. The second asked what changes they would make if they had access to sufficient resources to enable them to be free of paid employment and to provide funds for any projects they would wish to follow. Although not all of the participants in each setting were able to answer both questions, most responded to at least one or the other.

Therefore the data provided for this section are considered sufficient for an exploration of them

7.2 Would you change anything in your career?

This section investigates the attitude of the ICT professionals and the scholars towards their current occupations by looking at the responses to a question concerned with career development and opens by looking at the ICT participants.

7.2.1 ICT professionals

In responding to the question about changing anything in their careers, there was a high degree of unanimity in the attitudes of the ICT professionals. Thus comments included *"I think I would go down the same route again...I am actually quite happy with my company...I don't have a huge itch to move into other areas of IT like networks or servers. So sadly, I am content"* (M Software engineer) and *"I don't think I would change anything substantially. There have been good bits and bad bits in this career ..."* (M1 Project Manager II) could be considered representative of the participants in this setting. One was even more definite about this saying there was *"nothing particular"* he would change (M4 Systems Designer II). The evidence obtained from this question indicates that the professionals expressed a reasonable degree of satisfaction with the way their careers have developed. The next section looks at the academics' responses to the same question.

7.2.2 Scholars concerned with ICT

One scholar said that his *"world view...doesn't encourage [him] to ask those kinds of questions because they are often invitations to regret and regret is only helpful if you can figure out what you are going to do now"* (ME3 US). However others, like the ICT professionals, tended to share a positive view about the way their careers had developed whether they were experienced or new entrants into research in the area even if some indicated that they would make some changes. Thus one commented *"Yes, I would get a PhD in England because most of my problems [have been with] my written English... Apart from this change however, he said that he would follow the same subject area "because it is my interest"* (ME EU) Another participant also wished

for some change when he said *“I think it would have been smart for me to have had more training in philosophy in general and ethics in particular early in my career... I would have been a more profound thinker in this area.”* However as with the previous scholar he indicated that apart from this he would not have changed the direction of his career and *“would not change a thing with respect to the people...for collaboration”* (ME1 US).

Others expressed no reservations about their career trajectory. One was emphatic saying *“No, I’m happy”* (FE SA). Another said his career *“wasn’t planned in any way. 10 years ago I wouldn’t have told you that I would be a professor and head of research...so I am fairly happy with the way it has gone.”* He went on to add that *“I am not at the point where I would say that I would do something fundamentally differently”* (ME EU). A further participant expressed similar views saying she was *“pretty content with what (her) life eventually became and (believed that), considering the circumstances, (she) made the right decision at each time in [her] life in the given circumstance”* (FE EU).

While the above mentioned scholars are experienced researchers, more recent entrants into the subject area held similar views. As one said talking about her work *“I feel it is something that needed to be done and I was in a position to do so given my background and the place where I am employed. So no, no I don’t think I would change anything”* (FR EU). Another recent entrant who was a mature student before becoming a researcher expressed a slightly different view when she said that *“on reflection based on my knowledge now, I would have also done research on problems associated with the new media. I would have looked at how machines are impacting on how people do jobs”* (FR AUS).

The above comments appear to indicate that both the ICT professionals and the scholars are reasonably satisfied with their overall work experience. However, the data

obtained by using a second question, which sought to delve deeper into this theme, seem to indicate a different perspective. The discussion will now focus on these data.

7.3 What if you had the freedom to choose?

The second question on this theme was designed to draw out the views of the ICT professionals and the scholars if they had sufficient resources enabling unrestricted freedom to choose both their areas of work and the way they worked.

With the ICT professionals, this issue was discussed in both the group and individual interviews. In the group interview the professionals were asked if they did the lottery and all but one indicated they did. Their responses to the question what would they do if they won are most illuminating in the context of this research. Comments such as “*I have had enough of working in my life... I would say thank you, goodbye and walk out the door*” (M1 Project Manager II) and “*I would need to do some work to keep my sanity. I would probably go and work for a charity in an ethical area...*” (W2 Quality Control GD) were common during this part of the discussion. Another said “*I would leave it and do something for me. It may involve technology and computers*” (M3 Project Manager II). One participant was particularly vociferous in her views which drew a lot of nods of agreement around the table:

Oh, I would come into work every day because it would be absolutely fantastic to come in every day and not give a shit what they did to you and just got on with your job. I would be doing all my union activities and wouldn't care if they tried to discipline me or not. (W1 Asset Manager GD).

This theme was also explored in the individual interviews and, as is to be expected, here the respondents were more reflective and detailed in their replies. One ICT professional said

I have actually thought this one through...I would like to use my IT skills in a socially productive area. I did look into working for Oxfam and I considered maybe a move to Unite, to work for the union. Salary wouldn't be an issue. I wouldn't have the slightest problem about halving my salary if I was doing this kind of work but actually contributing to society. (M2 Software Engineer II).

Another remarked that he would be *“very interested in how people use IT for organising and campaigning... because there are lots of free tools...but nobody seems to have...pulled them together into a coherent set and explained how to use them... So that would be a fantastic thing to do”* (M4 Systems Designer II). A similar view was expressed by a different participant when he said *“I would have done something completely different... I am not in IT services project management because I have had a deep burning desire to do that all my life”* (M1 Project Manager II).

These comments begin to bring to the surface a profound unhappiness experienced by ICT professionals with regard to their work and a strong sense that, given the opportunity, they would want to be engaged in other more meaningful forms of activity that emphasised a colligate way of working. The next part of the discussion considers the response of the scholars to a similar question.

To facilitate consideration of this aspect, the scholars were asked what type of activity they would like to undertake if given a large suitcase full of money of large denominations with no strings attached. For one experienced scholar this would have no impact on his work and another said that *“I would do the same thing because I think you need to be accountable and I would research the same areas... With more resources I would add more people to the team”* (FE SA). A similar view was expressed by a more recent entrant into research when she said *“I would still focus on what I am doing now because...it is really important to make a positive contribution to development. So even with a suitcase of money I would still have to finish my research”* (FR SA).

However, a number of other scholars indicated that having access to and control over considerable resources would have a significant impact on how they went about their work. One experienced research said

How much cash? Secure my total retirement?...I would create a condition for myself in which I would feel secure physically and psychologically and... gather around me a team of people to work with on exploring the problem of...knowledge...in general in society ...This would probably be my ideal scenario...so I would stop working at the university” (FE EU).

Another participant said *“I would ditch a lot of the things that take up my time and energy...that is the administrative side of university life...which is not conducive to doing the research... There wouldn't be a radical break with what I do at the moment... I would...read more and...do more empirical research on things such as ICT4D”* (ME EU).

Some of the scholars intimated that having financial security would result in a change of research topic. Thus one said, *“I think the health aspect of information communications technology is something that is really important...that would probably be my personal choice”* (ME EU). Echoing the thoughts of other academics, he added that *“to manage your own time to try and create something is what it comes down to...you have that sense of creating something...if you are not doing work for money... I want to change society in some way or shape”* (ME4 EU).

Another said that he would use the opportunity to go back to some of his first *“loves and work in moral psychology particularly as it is related to spirituality”*. He added *“I actually love talking and working with people who build stuff... I might continue with it and then add to it with something from moral psychology”* (ME3 US).

One scholar described how this scenario is going to be near enough reality with a change of job that would give him almost total control over his working day. As a result he said:

This is exactly what is going to happen to me next year...I will be continuing to do things I am doing only collaborating with more people and if I need equipment it will be made available... I will raise the science and technology (and) moral issues about living with robots. I can't imagine anything more fun. (ME1 US).

In these changed circumstances he conceives his activity not as work but something other than work. It is fun. It is still labour with outcomes but relative to his other working life; this will be fun, directly connected to the agenda he wants to follow.

The overall attitude of the scholars is encapsulated in the following quote from a relatively new researcher

I would try to work on the philosophical and the applied aspects of the technology. I would try to do both because I think they could benefit from each other. I would still do research but would be happy to be relieved of all that publish or perish pressure...the choices I make would be based on what I think is important to do that would make a difference to the world. (FR EU).

7.4 Analysis

The previous two Chapters have shown that the objective conditions within which the ICT professionals and scholars work create an environment that undermines those aspects of work which they believe make their jobs worthwhile in terms of process, product and relationships. This Chapter has focused on investigating how these working conditions influence the way the two groups of participants feel about their work. This was done in an attempt to assess the validity of Marx's view that work would be avoided if it were possible and the analysis below follows the structure of the Chapter by looking first at the responses to the first question and then to the second.

The responses to the first question clearly show that participants in both groups feel they have made the right career choices. Although some indicated that they would make some relatively minor changes to their career trajectory, the general view was that they were comfortable with their jobs, for as was seen, words like "content" and "satisfied" peppered the responses to this question. Left at this point it could be argued that despite the adverse conditions described in the two previous Chapters, in no sense does the evidence support the view advanced by Marx that a major consequence of alienation, for these two groups of workers, is that they would avoid work "like the plague."

However, the responses to the second question bring to the surface a profound, shared set of perceptions about how the participants of both settings see their work. Further, these perceptions significantly contradict the comments made in the answers to the first question. For the ICT professionals, the option of having financial security would mean that without doubt all but one would quit working for their employer immediately and engage in other more satisfying endeavours which although connected to ICT would be directed to more socially orientated objectives. The one participant who would not leave work would seek to construct a scenario in which she would make life difficult for her employer leading, perhaps, to her dismissal. Here their views very much support the argument made by Marx in that they show that the professionals would indeed shun work as required under current conditions but would pursue what they believe to be more worthwhile activities. At the same time they reinforce Marx's argument about working being important since they also articulate a need to continue with some sort of labour-related activity but in an environment over which they have control. Whereas the answers provided by the ICT professionals for the first question were in contradiction to the evidence they provided for Chapter Five, their views expressed in response to the second question were entirely consistent with and emanate from their descriptions of their work as described in that Chapter.

While the comments of the ICT professionals sharply expressed the alienation they experience, those of the scholars were more nuanced (a detail noticed in Chapter Six) and they identified two aspects of their work where they would make significant changes. The first was the work process where a number of scholars spoke of taking much greater control over their day-to-day activities to pursue their current research objectives. For one this meant quitting her job, while for some others it meant obviating the requirement to undertake onerous administrative duties and/or to remove the pressure to publish. This latter aspect would mean that they could publish what and

where they wanted rather than having to meet managerial publishing demands emanating from the needs of submissions to research assessment exercises.

The second element relates to the choice of research topic with a number saying that being financially secure would enable a change in the direction of their research allowing them to address issues they feel are important and which would have a direct impact on society. In this respect, their ambitions strongly echo the sentiments expressed by the ICT professionals.

The evidence from the scholars indicates that they would clearly strive for much greater control over the processes and subjects of their research. In practice this would mean challenging the managerial imperatives of universities and research institutions and would inevitably lead to a conflict with their employers. It is not unreasonable to conclude that, given a situation of financial security, most of the academics interviewed would, like the ICT professionals, ultimately choose to leave their jobs. These results mirror closely evidence obtained from surveys of employees in other sectors (Archibald 2009a).

Under such circumstances, where they would have much greater control over how and on what they work, work would cease to be alienated labour and would be transformed into, as one very fortunate participant described it, fun! This does of course raise a number of questions linked to how far it is possible to engage in non-alienated labour within a context where every aspect of life is dominated by alienated labour (McKenna 2013, Molyneux 1998).

7.5 Conclusion

Using evidence obtained both from the ICT professionals and scholars, this Chapter has considered the validity of Marx's view that, as soon as the necessity to work has been removed, it is avoided like the plague. The discussion has indicated that for one group, the ICT professionals, Marx's words are extremely apposite. It has also been

argued that they are clearly applicable to the scholars. However, cognisance must be taken of recognition that for both groups their specific working contexts will influence the manner in which the contradictions and conflicts arising from alienation may well be expressed, and the case of the scholars, in more subtle forms.

Having looked at alienation in two settings associated with work, the next Chapter seeks to apply the theory of alienation to a non-work but ICT related environment.

Chapter 8: ICT, age and alienation

8.1 Introduction

The previous three Chapters have looked at the importance of using Marx's notion of alienation to explore the work of ICT professionals and scholars concerned with researching ethical and or societal issues of ICT; they indicate that this approach to alienation can be of significant significance both as a research theme and as a guide on how to undertake research. However there are two problems with the discussion thus far.

The first is that it has focused on the work environment. However, if the theory of alienation as conceived by Marx has any general explanatory power in researching ICT it has to be applicable to a non-work environment. Although Marx made reference to the pervasive nature of alienation and its influence in non-work environments, he never fully developed a systematic argument regarding this aspect of alienation and because of this his theory is often misunderstood as being applicable only to work.¹⁸

The second problem is that while this particular research has focused on what leads to alienation and how it is expressed, so far it has not considered what strategies or coping mechanisms people adopt to handle the problems associated with alienation. As a consequence the discussion has not considered if such mechanisms can be in any way effective.

This Chapter seeks to address these issues by drawing upon data collected during a series of hands-on computer sessions undertaken with the SPAG. It opens by looking

¹⁸ Here it should be noted that when Marx wrote the *Manuscripts* in 1844 it was quite common for all members of a family, including children from 3 upwards, to work in the mills and factories of the time. Hence, the very close tie between work and personal/family life. There are two sound reasons for believing that Marx would have been well aware of these conditions. Firstly, Engels, his long-time collaborator, researched and published his *The Condition of the Working Class in England* in 1844 (1987). This was an authoritative study of the plight of workers at that time. Secondly Marx has an extended discussion in *Capital* about the consequences that a long working day, the division of labour, the introduction of machinery in a factory setting, and labour itself being a commodity, have on personal life.

at attitudes towards ICT and then considers issues of control related to resources. The discussion then moves on to consider the consequences, for participants in this setting, arising from a lack of control of the technology. The next part refers to the strategies adopted to cope with problems arising from ICT and this is followed by the major aspect of this Chapter which concerns the hands-on sessions. Themes such as session structure, the motivations and expectations of the participants, the benefits of the sessions, as well as the problems encountered during the activity are covered. This is followed by a section that provides an analysis of the data with a view to testing the explanatory power of the theory of alienation in this context. The discussion concludes with a brief restatement of the main findings of this section before signposting the subject of the subsequent Chapter. However, first a comment on process and then some housekeeping.

In many respects this has been the most difficult section to write in that it attempts to articulate by way of description and subsequent analysis an extremely dynamic process in which many happenings occurred in the same moment. The struggle here has been to disentangle this myriad of interconnecting and interdependent threads and to present them in a coherent narrative while trying not to lose touch with the dynamic process.¹⁹

The data within this Chapter include individual quotes from participants and sections of dialogue. The latter have been included because they buttress a number of aspects that are included in the discussion and they illuminate a series of critical points that occur during the same moment. As Chapter 4.3 has already detailed the manner in which these sessions were organised, it is not considered necessary to repeat all this information at this point. Each session has been allocated a number and each began

¹⁹ In many respects this touches upon the comments Marx made about the nature of inquiry and subsequent presentation of that inquiry (Kolstad 2013)

with a preview and concluded with a review. This information has been used to identify quotes from the participants and so a quote from the participant called Mary in the 3rd session review would be identified as follows: Mary3R or Mary3P if it occurred in a preview. Where a unit of dialogue is included in the text, the session or interview will be identified at the start of the quoted dialogue. While the vast majority of data were collected by recording the previews and reviews of each session, there were limited opportunities to record partial discussions within the sessions themselves and these mainly arose when I was working in close focus with one or two participants. Where there quotes arising from discussions within sessions these are identified with an S. Data arising from individual interviews have been identified by PI. Thus a quote made by Alf during an interview will be tagged as AlfPI. My contributions during dialogue extracts are tagged as "Mike".

8.2 Alienated attitudes towards the technology: a shared sentiment

The participants in this setting did express a range of alienated attitudes towards ICT and, as is to be expected, they brought their experiences and sentiments of the technology into the hands-on sessions. One participant explained what impact a failure to login to Facebook had on her motivation "*I have had this problem before. It makes me want to give up*" (Denise 7S). Another SPAG member said "*I saved up and bought a computer; it was always breaking down and not working. I got really fed-up... I mean, sometimes I feel like throwing the computer out of the window*" (Mary PI).

As the following comment from one participant indicates, this feeling of alienation can express itself in physical symptoms.

Today I put in my username but when I put in my password, I was 100 percent I was absolutely right, it wouldn't accept it. So that makes me... *it tires me out enormously in frustration* and it didn't ask me when... I then admitted that I obviously couldn't find my password, it didn't ask me for my security word either (Ron 2R, my italics).

This quote shows that at the same moment Ron felt three interdependent things: a lack of control; frustration; and a sense that the computer should solve the problem. All of these meant he had a physical sense of tiredness.

Feelings of alienation can also result in declarations of self-denigration, as one participant said *"I just want to do...social networking...because I haven't got a clue...I don't know why but I just feel at such a loss when everybody else can do things that I can't do"* (Denise 9P). They can also induce a sense of struggle with the computer being the enemy for as one participant said when talking about trying to use Internet Explorer to find files, *"Very difficult to find anything on it. I think I will succeed, we shall be victorious"* (Elmars 5R).

Left at this point it could appear that the perceptions of the SPAG participants emanated from within this particular group of people or the specific context. However, evidence collected from the settings described in Chapters five and six indicate that both the scholars and the ICT professionals share similar sentiments to those expressed by SPAG members.

As one ICT professional said in discussing problems with the technology *"the problems come when it doesn't work...I can spend hours trying to solve problems...I feel irritated but not suicidal"* (M1 Project Manager). He added that when the company's network goes down it is the most frustrating experience. In describing technologies associated with networking one scholar said that *"the inconvenience and annoyance of having expectations of technology of bringing us together and [it] doesn't work...that drives me nuts"* (ME1 US). Another, in discussing a software problem, said *"I was actually thinking 'God, I must be doing something really stupid here'...I was really struggling"* (FE EU).

Others expressed deep feelings of alienation with one commenting *"You feel completely out of control because you think you had control but now it doesn't work"*

and you don't have control" (FE SA). Another said *"the adjective would be powerless. You wish there was something you could do but cannot figure a way out of the box"* (ME3 US). One ICT professional said *"if you can't fix things yourself, you have to phone the support people this can be...onerous and tiresome"* (M2 Software engineer). This sentiment strongly echoes that expressed by Ron in the above quote.

This evidence does not reveal anything hitherto unnoticed or hidden away, but it does underscore the view that ICT provokes a range of reactions that are remarkably consistent across the three different sets of participants who formed the subjects of this study. As such it indicates that the feelings of alienation expressed by the participants in a working context covered in Chapters five and six are also evident in a non-working environment. This reinforces the argument that it is possible to speak of alienation in an abstract manner in the sense that it exists in multiple contexts although, because of mediation, how it is manifested is likely to be rooted in a specific circumstance.

Therefore investigating the specific context is important for understanding what causes alienation to come to the surface, allows it to be observed and reveals how it takes its practical form.

Having looked at the communality of sentiments shared across the three settings, the discussion will now focus on those issues directly linked to alienation as it relates to ICT and SPAG participants. It opens with a look at aspects of control.

8.3 Technology and Control

Issues of control were of significant importance for participants in the previous two settings and revolved around outcomes and process as related to their work environment. In this setting however, control was much more directly related to resources and for this group it took two forms. The first related to the technical

resources both generally and specifically to those available in the hands-on sessions.

The second was concerned with the nature of the software and hardware.

8.3.1 Control of resources

The inconsistency of available software across the machines was a problem particularly if people wanted to work together using different machines. During the early stages this did not present any significant barriers to learning but it did become a major issue towards the end of the programme when the skill levels of some participants had increased. The variation in software available across different computers impacted on the relationships between participants in that it became an impediment to enhancing a collective way of working.

This fed into a discussion about the group establishing its IT priorities and about how to progress these with vigour with the management of the SPC. There was a very strong desire within the group for each person to be able to undertake the work required for SPAG and there was recognition that the computer room at the SPC was a critical enabling factor. There was also a firm belief that there would be resistance by management, for funding reasons, to the improvement in the IT facilities. As the exchange below, from the 3rd session review, indicates, control over resources even has implications on the choice of mouse:

Geoff: At the end I was using the ball on the mouse. It was much easier.

Mike: Or maybe we could get another one then. Could we ask for another mouse like that?

Denise: I don't know. You'd have to ask someone upstairs. It isn't my area.

Mike: Maybe somebody could ask the folk who provide the hardware, can they provide another mouse? If that's easier to use...

Alf: Yes. It'd be down here, wouldn't it, if it was possible to use it would be down here in this room, wouldn't it?

Geoff: They might have one locked away.

On a general level the discussion about alienation from the technology tends to focus on the impact of computers, but for the SPAG participants the costs involved in

maintaining peripherals such as printers are also of serious concern. The following conversation during the 5th session review reveals a deep resentment about the cost of replacing colour cartridges:

Denise: What's in here is more expensive than gold. Well, not quite.

£150 worth of bloody cartridges. £150 is a bloody complete rip off.

Elmars: Yes, because you buy the expensive ones, don't you?

Denise: I've tried other ones and it's quite difficult. I really do feel like changing my printer soon.

Mary: You get four cartridges for £130?

Denise: It's five. I mean, the colour ones are about £30, £35, and the black ones are about £20.

Mary: How much use do you get out of them?

Denise: Not a lot. I've got two colour ones here and I've got three black. This'll last me three or four months and then I'll have to get some more.

Mary: My thing, [printer] you put the separate colours in and I seem to end up with loads and loads and loads of yellow ones.

The last comment appears to show that for these ICT users the provision of print cartridges is part of the irritating overall ICT tapestry they experience and with which they have to cope.

8.3.2 Control of software

The second aspect of control that emerged during the conversations with the participants related to their perceptions of how the software works and for whom it is designed. As the following dialogue, which occurred in during the 4th session, indicates they consider that the software has been created for the other; for those who, unlike them, know what they are doing.

Mike "So what's this software designed for? What is this designed for?"

Mary: "People who already know what they're doing."

Mike "So in terms of things like do you feel in control when you're sitting in front of the screen?"

Ron: "Not really, no."

Mike "How about you, Alf?"

Alf: "No. No, not really, no. You feel that you're going to get there, you know, but at the moment you're not in control".

Geoff: "We're just doing what we're told by you."

Mary: "And the reason we have to have an instructor is that the software, the actual package that this teaching is it doesn't make it...clear what you've got to do."

This dialogue also reveals that the group saw themselves as quite separate from other users of ICT and far from being in control of the specific software they were using for the activity they were undertaking. The final two comments are also evidence that they also saw me as being separate from them; for them I was the one in control and an "other".

Having looked at some of the aspects of control experienced by the SPAG members, the discussion will now move to consider how these participants responded to the lack of control they experienced

8.4 Consequences of lack of control

The response of SPAG participants to the lack of control over the technology took a number of forms ranging from anger in the form of abuse hurled at the computer through to fatalism with a touch of self-criticism thrown in for good measure. These themes are addressed in the following sections.

8.4.1 Anger

Getting cross at the computer was not something all participants exhibited, and as will be discussed later in this Chapter and, apart from just one occasion, was not observable during the hands-on sessions. However, as the dialogue below from a personal interview demonstrates, for some of the participants, the anger and criticism of the technology were palpable and could be articulated quite sharply:

Mary: Yes. I end up just shouting at the computer, which is not much help really.

Mike: Why do you shout at the computer?

Mary: Well, because I'm angry that I can't do what I want to do. And that's – my view is, if you want to know my honest opinion, I believe that all machines are part of a universal conspiracy against me personally. Well, and against other people but particularly against me.

Mike: You mean out of 6.7 billion people they've got their sights on you?

Mary: Yes, I feel like that.

Mike: You feel like that?

Mary: Yes. I know it's silly, but I do feel like that, yes. (Mary PI).

This extract shows, *inter alia*, that while Mary appreciates on an intellectual level that it does not make sense to believe she is a personal target of computers, she nonetheless also feels this to be the case. For her, even if she doesn't really believe it, this offers some explanation for the failure of machines to meet her requirements. Others too also indicated the adverse impact the technology creates in emotions when expectations are not met with one commenting, when talking about an unfulfilled task relating to emails "*Well I do send it to her but I don't know if she's got it. There's a real problem here. This makes me cross. This is not good*" (Denise5P).

The irritation with the technology did spill over into the hands-on sessions but only in one instance and occurred during a discussion in the 5th session and concerned a database containing the SPAG membership records. This database had been mentioned on a number of occasions before and had been giving the SPAG officers some problems; thus this database had its history. In the following dialogue, emphasising techniques have been used to impart the tone and volume of the exchange.

Mike: So this is a query result, is it?

Denise: No, this is the actual Table. This is the whole database and this tells you who's a member of this centre. I just want to redo some of the queries and we want to get rid of 2008.

Mike: When you say queries, what do you mean?

Elmars: **The headings.**

Mike: You mean you want to change the column headings?

Denise: **Yes, but they're queries, aren't they? They are called queries on the database.**

Mike: No.

Denise: **They are.**

Elmars: **It doesn't matter what they're called. We want to change the headings.**

Denise: **Can we have a quick look? I'll just go and show you what I mean. Because if not we're talking different languages. This is the one that's got my thing in.**

Mike: Ok. [At this point a sense of control kicked-in leading to an ease of tension.]

Denise: Sorry, did I pick some...

Mike: No, it's not a problem. Not a problem. I mean, we might be talking about the same thing.

Although the above exchange was relatively brief, it was highly charged with tension and frustration especially between Denise and Elmars which was clearly linked to the problems they had previously encountered with the database. While no one shouted during this exchange the voices were raised. As well as anger, other negative sentiments were linked to the technology.

8.4.2 Fatalism and self-criticism

Fatalism, an attitude of resignation, was expressed by some of the participants. As one put it "*It does take a long time and sometimes I don't get anywhere. It takes an incredibly long time...anyway there we are*" (Ron2P). Self-criticism was a recurring theme in discussions within the sessions which were peppered with comments such as *You don't know a lot before you sit down there. I don't*" (Alf2R). Having looked at issues and implications concerned with a lack of control over the technology, the Chapter now looks in detail at the hands-on sessions.

8.5 The basement tapes: the hands-on sessions introduction

This section focuses on the data collected during a series of computer sessions that took place in a windowless basement room with SPAG members and opens with a brief reprise of the structure adopted. This is followed by describing data focusing on the motivations and expectations of the participants; collaboration, the lack of

competition, and the overall benefits of the hands-on sessions. The section ends by looking at the problems associated with the activity.

8.5.1 Structure

The conventional process for planning and undertaking a set of ICT training sessions involves pre-signifying learning outcomes of each session and tailoring the learning materials to match the learning outcomes. For the participant, the programme arrives pre-packaged. Quite often it is imperatives emanating from the trainer that drive the learning programme. The pre-programme ability of the participants is determined through either an online assessment tool or the use of hard copy questionnaires. Invariably, such an assessment focuses on increasing the skills and competencies of the participants (Omoogun *et al* 2013). The success of the programme is often measured by participants undertaking a series of set tasks or an end of unit assessment activity such as an online test.

In many instances the person responsible for designing the programme is not the person responsible for delivering it and the underpinning ethos of this approach is based on the need to deliver the required knowledge in the cheapest, fastest and most organised manner possible. Following a strict agenda, little time is set aside for exploration and consideration by the participant of the programme or to engage in a wider appreciation or discussion about the technology. The learning sessions undertaken with the SPAG sought to break with this process and echo the process favoured by language cafe model employed by the EU project of the same name.²⁰

There were no formal learning objectives outlined at the start of the programme and no attempt was made to measure the skill level of the participating group either before or at the end of the activity. In many respects it resembled a problem-based learning

²⁰ Further information is available at: <http://www.languagecafe.eu>

strategy.²¹ This approach was adopted for two reasons. It was the best fit given the subject of the research, alienation, and the philosophical and methodological frameworks, CR and PAR, informing the way the research was to be conducted. Secondly, it enabled a high degree of input from the SPAG participants thus encouraging a greater sense of ownership of the process. The purpose, as has been mentioned previously in Chapter Three was to create an environment that attempted to minimise possible additional alienation.

This was not expected by some members of the group who, at the first discussion about the programme, had anticipated that the programme would be similar to that experienced in prior ICT training sessions. During the planning stage some participants expressed some concern that the structure of the sessions would be somewhat anarchical. However at the same time they also knew, from their experience within SPAG, a structure that encouraged a supportive and collaborative environment was important for the success of the work. These issues were discussed and resolved during the first meeting with participants

The success of this introductory meeting paved the way for more specific and substantial discussion about the technical details of organising the sessions. From the outset, it was agreed that the process involved in the planning and undertaking the sessions should be very much user driven and therefore needed a significant input from those who were likely to come to the hands-on sessions. As a result it was agreed that SPAG members would book the computer room, design, print and circulate a flyer advertising the sessions, to set up an email/telephone distribution list of those wishing to come to the sessions, and to encourage and monitor attendance. It was also agreed that the dates and times of the sessions would be the product of a

²¹ Problem based learning is an effective way to motivate students to study. It actively involves students and allows them work in small groups. Wood (2013)., Alavi (1995).

discussion between the SPAG end-users and me. The group, both as individuals and a collective, also concurred with the recording of discussions during the computer sessions as part of my research. This was required because of the need to adhere to the ethical concerns noted in Chapter 3.5

Although the content of each session was different, the structure of each session was the same; it opened with a review of the previous session's activity and then moved on to a preview of the current session. This meant that the content of each session was more or less determined right before the hands-on activity took place. Each session concluded with a review of the activity which facilitated a reflective discussion about the benefits of the event.

There was a long break of some 10 weeks between the end of the first round of hands-on sessions and the start of the second. However, even with the long break, the participants were keen to re-commence the sessions and made it clear they had priorities such as database design, image processing software, such as GIMP, social networking and blogs. Having outlined the structure of the programme, the discussion will now concentrate on the motivations of the participants; this will be followed by a summary of their expectations.

8.5.2 Motivations

Reference has been made in Chapter 8.2 above to the alienating ICT experiences described by the SPAG members. However, as Elmars said "*Without my computer, I would be at a loss...I don't think I could live without it now*" (Elmars1P), a sentiment supported by another participant who, when asked how she would manage without her computer, replied, "*I would be both very upset and delighted*" (Mary1P). This uncomfortable dependency on computers was, for some participants, the primary motivation for attending the sessions.

For others the motivation lay in simply getting started with computers to enable them to support their interests, with, for example, one saying *"I'm involved with...small charities and I use financial records so spreadsheets can be quite useful"* (Geoff 1P). He also was keen to use the Internet particularly for online shopping. While a few participants wanted to develop their skills for personal reasons, such as promoting better communication with other family members, all had a specific purpose for developing ICT skills which was directly connected to the roles they had in organisations such as charities. Others felt it was simply a good way to develop their skills and to make it easier to manage the administration of SPAG.

8.5.3 Expectations

As has been mentioned above, initial discussions indicated some participants were expecting a very traditional approach to the sessions and were concerned about what they saw as the apparent unstructured nature of the programme. Some had low expectations of the proposed programme because of experiences of previous hands-on courses. *"I mean, they had loads of computers, very cramped, the computers, and they're all different ones, so you never got the same computer two weeks in a row and it was quite difficult"* (Elmars 1R). Another said about a Quark course *"...and I got a certificate but it didn't teach me anything to be quite honest...it didn't teach me how to make a newsletter..."* (Mary PI).

Apart from developing technical skills some also thought the proposed environment would be beneficial. Although Mary said she believed there had to be an instructor since *"...the software, the actual package...doesn't make it clear what you have to do!"* (Mary 2R), she was also clear that a different approach was beneficial *"it was a contrast to other courses...much more user friendly I would say..."* (Mary1P).

As the programme progressed participants expressed changes in expectation both in themselves and the sessions. One participant said “*The more you learn, the more you want to learn with this thing*” (Alf 6R).

The content of the sessions also developed as the programme progressed and reflected a growing awareness within the group of the possibilities of the technology. In discussing Google docs, Denise said “*Well, if we can get people writing...it would save a lot of time. I can see how useful it could be*” (Denise 4R). Towards the end of the programme, the participants wanted to make a video about their views on changes to the United Kingdom health service for YouTube. Having outlined the expectations participants had for the hands-on sessions, the discussion will now shift to see whether or not these hopes were met.

8.6 Benefits of the hands-on sessions

This section looks at the benefits of the basement sessions as described by the participants and which centred on a number of themes: the development of specific ICT skills, collaboration, control of the technology, the learning process and transferable skills. Some of these had not been anticipated at the start of the programme.

8.6.1 Improvement in ICT skills

Given that the participants came to the programme with varying levels of skills, it was not expected that all would reach the same point at the conclusion of the sessions.

Consequently it was not considered appropriate that skill attainments levels should be measured through the application of a structured assessment device. Evidence for progress was obtained during the preview and review exchanges and therefore flowed naturally from the discussions during these periods; this was in effect a form of self-and-peer-assessment. Geoff “*Well, I made a bit more progress on spreadsheets...its slow going because there is only one of you [ie one trainer]...but I am learning a lot*” (Geoff4R).

As the following dialogue from the second session review shows, the feeling that progress was being made was evident from early in the programme:

Geoff: I really want to press on with it

Alf: Yes, I'm looking forward to the next one

Ron: Oh yes, yes, I found it quite useful. Indeed I have"

Later in this same discussion, Alf comments "*I think I have done pretty well. But I've got to know more about the things you press on the keyboard*" (Alf2R). This comment indicates that he was appreciating his progress in two ways. He was developing his technical skills and learning what it was he didn't yet know in quite specific terms.

In talking about the design and development of databases using MS Access one said "*Now you have side-stepped this tutorial thing [an online facility], I have already learnt far more than I learnt at a previous training*" (Mary 6R). The relatively more experienced SPAG ICT users were encouraged by the programme to explore aspects of the technology they had previously ignored. As Denise said "*It was the first time I'd actually really used YouTube and I was gobsmacked. My god, so much is on it, isn't it? It's so amazing!*" (Denise4R).

The sessions also encouraged those, like Geoff and Alf, who did not at the time have a personal computer, to use computer facilities in other parts of Southwark "*Yes, I spent an hour...in the library. It was brilliant*" (Alf5P). They also signed-up for free ICT courses in the borough. This sense of progress reached right over to the end of the programme when Alf told me that he now had an email address and was sending and receiving emails.²²

The concluding task undertaken by the group at the end of the programme focused on making a video, to be posted online, about opposing cuts in the UK health service and

²² I have been told by one of the participants that Alf was motivated by the programme to buy his own lap top.

was planned and scripted by members of SPAG. Apart from reflecting the ethos of SPAG as a campaigning organisation, the completion of this task enhanced knowledge of the networking facilities on the Web and employed the use of appropriate hardware and software. This section has indicated that enhanced skill levels were experienced by the participants in the programme. The following sections look at different benefits that are often described as intangible and opens with a look at collaboration.

8.6.2 Collaboration

From the outset, it was evident that the group saw the success of the activity as being achieved through collective effort with, for example, Elmars agreeing to help Geoff use the computer facilities at a local library during the first exploratory meeting. The following dialogue, from the 6th session review, shows the high degree of support the participants gave each other:

Denise: It's quite interesting when you haven't done anything before and you haven't even done any typing. To go right back to that I would find it impossible. I don't know how you do it.

Elmars: I think it just shows you how

Mary: I think it's fantastic, Alf

Alf: It's quite interesting when you get into it. It's like a book. I mean, a good book, you forget that the time's going round a bit...

In response to one of the participants saying he has to wait for the trainer to be free, another one said *"We can always help you. Can I make a suggestion? I think he (Geoff) is having great difficulty with the ball. They are much more difficult to use than the mouse"* (Elmars 4R).

This intervention indicates that by this time Elmars wants to solve the problem, show his knowledge, help the other participants and has good observation skills. He sees the success of the other as important to him because it confirms the positive experience he is sharing.

The supportive, sharing environment was also important to those participants who were more familiar with the technology for as one said in talking about an environment conducive to asking questions “... *you’ve got to be in a situation where you don’t feel threatened at asking something, because a lot of people do...this idea that you are actually... all taking part in it (sharing) our knowledge, it is so much more productive*” (Denise P1). Furthermore, the collective atmosphere encouraged individual participants to see the others as people with whom they are sharing the same journey. As Geoff commented “*I think that what I’d like to do is surf the net using a mouse because like Alf, I’ve got to get lots of practice in*” (Geoff P1).

The collaborative environment also had a positive impact on my sense of my role in the programme. In the middle of one session, I thought the process was running out of steam and needed to reflect on how things were going. This led to the following exchange during the sixth session review which indicates that the collective environment encouraged me to feel comfortable about sharing my self-criticisms:

Mike: Shall I tell you what I thought about today?

Denise: So tell us.

Mike: It looked like at one point it didn’t have any structure...I was uncertain...but looking around... I was thinking Geoff is getting on doing what he’s...he’s working on his own, which is, like, if you think about where we started, what we wanted...

Denise: Yes.

Mike: And then you two are working together and it seems to be working quite ok.

Denise: Yes, as long as I didn’t put Alf off. I keep taking over.

Mike ...there were four people on machines all working away and it’s... like the session had its own sort of structure, which I thought was ok.

Denise: Well, we’ve all got bits that we need help on, haven’t we?

Mary: Well, I mean, I’ve already...this has been far more useful than anything else I’ve done really.

There are a number of things this exchange reveals. The traditional relationship between the ICT trainer and trainees has been undermined and replaced with a much

more interactive, supportive relationship; a less functional, more organic relationship had emerged by this point. Secondly it signifies that some of the “trainees” had become trainers. Finally it also shows the process employed during these sessions was highly regarded by the participants for it had useable practical outcomes.

In discussing the reasons why there was a strong culture of support within the sessions, one participant said *“It’s because of the idea that you started off with, that it should be for us to try and structure the course...It has drawn us closer together, that whole kind of idea of it, of us being in control really”* (Mary PI). It has already been noted that participants were intimately involved from the start in planning the length, timing and content of the sessions and took responsibility for organising the venue, producing a flyer advertising the programme and reminding participants to attend. It has also been recorded that a mutually supportive environment was evident from the very start of the programme. Apart from the one incident alluded to in 8.4.1 above, a spirit of collaboration and collective endeavour infused the ambience of the sessions.

This idea of sharing knowledge and skills in a mutually supportive framework contributed to another benefit which emerged organically during the sessions and which was connected with learning within the group; this facet is considered in greater detail in section 8.6.5 below. However, before covering that aspect, the discussion now considers what the data reveal about problems of control within the group.

8.6.3 Taking control introduction

Mention has been made above of the negative consequences arising from the lack of control over the technology. The data indicate that the members of the programme sought to deal with this problem in three areas: the development of relationships within the group; the programme content; and control over the technology. Each of these aspects is covered in the following discussion.

8.6.4 Relationships within the group

The following dialogue, which occurred towards the end of the third session, indicates the development of a number of positive trends within the group pertinent to this issue. It shows the increasing control the group was beginning to assert in the activity and also reveals the growing confidence of individuals within the group both with themselves and each other.

Geoff: "Right, well, I must be making tracks. How do I turn this off? Just press the...?"

Mike "Well, Cerene, will you tell Geoff how to turn it off."

Cerene: "Fat chance.... Which one have you been working on? This one here?"

Mike "Cerene...you tell him what to do, don't you do it... See if you can remember what he is supposed to do"

(Cerene shows Geoff how to close down the computer.)

Mike (to everyone in the group) "Cerene has just given... a lesson... (Clapping from the others in the group.) to someone on how to turn off the machine"

Mary: "And did he do it right?"

Cerene: "Yes."

Mary: "There you go. I say."

Cerene: "Thank you."

8.6.5 Control over programme content

The participants felt they were exerting much greater control over the hands-on sessions both in terms of skill application and content "*I've got an idea now...about the purpose of database and how it actually works which I didn't really understand at all*" (Mary 6R).. This increased confidence also led to increased assertiveness in determining content. "*I would like some help next week with looking at that wretched database...then I can get the hell out of it...*" (Denise 6R).

The preview and review periods fed into this process and also allowed for a much wider consideration of ICT and society with SPAG members taking the lead in these discussions. In one instance, this resulted in a discussion, initiated and led by one of the participants, concerning a TV programme called *Inside the Virtual Anthill* about free

and open source software. She concluded by saying that *“it was quite a revelation to me about what is going on...it was saying that quite a few firms are using this rather than Microsoft”* (Denise 4R). This did raise the question of using open source in the SPC.

As the programme developed and participants could see the range of possibilities available with the technology, they increasingly became aware of the lack of control they had over the technology. As a response to this they decided to approach the management of the Centre to request an update of the computer facilities. How this should be progressed formed the main focus of a preview discussion in December 2010. *“We have to talk to the management about updating the software and we want it done in the way we need”* (Denise R11).

Although there was a debate within the group about the best way to proceed, the consensus was that this should be technology they could control and use without impediment. The view was also expressed that this should be the same for all users of the Centre. This was a very sensitive area for the participants and it was during this discussion that, for the first and only time, I was asked to turn off the digital recorder. One felt it relied to a degree on the personality of the Centre manager when she said the current manager is approachable whereas the one before *“seemed like she wanted to control everything, felt she was doing us a favour by being there...”* (Mary PI).

While not having any negative impact on the collection of data, the request to temporarily cease recording the conversation was unfortunate since the discussion developed into an interesting description of and the consequences arising from the complex power relationships within the Centre determining access to the technology.

Apart from outlining the limitations participants had over control of the technology, the above discussion also indicates that both change and continuation existed at the same time during the programme. Change in the sense that participants felt they were

developing greater control of the issues such as programme content and skill level as the sessions progressed; continuation in the recognition that there were significant aspects of the process over which they had no control. Thus the dialogue above concerning the managerial issues within the Centre underlines a process where a sense of progression, in terms of hands-on skill enhancement, existed alongside continuing alienation from the technology

It is also the case that while the attempt in organising the sessions was designed to limited expressions of alienation as the following exchange shows, alienation continued to be apparent even at a late stage in the process . “*We have had a bit of a frustrating day today with machines not running properly, software behaving unpredictably...very frustrating*” (Mike R10) and old frustrations of the participants re-emerged “*Oh for XXXX sake, what is going on here...why has that disappeared...* (Mary S10).

In many respects the positive developments referred to above had been anticipated since they mirror those found in other PAR informed activity. However there were some aspects that had not been expected and these are the subject of the next section.

8.6.6 Unanticipated developments

There were a number of unanticipated outcomes that materialised from the hands-on sessions. One, which has already been referred to, was the emergence of those seeking to adopt the role of a trainer in helping with both technical issues and initiating discussions about the wider societal implications of ICT. The following dialogue is a good example of an instance of the former and took place directly after Cerene had shown Geoff how to turn off his computer.

Mike “Now, Geoff, you will need to show Alf how to turn the machine off.”

Alf: “That’s this button here, isn’t it?”

Geoff: “Click on START.”

Alf: “I’ve done that.”

Geoff: "There we are then. After you click, go to TURN OFF COMPUTER. Click. Got that. Click...."

Geoff: "Then you come up here."

Alf: "Oh dear, oh lor. Yes, it's going off."

Mike: "Geoff has just given his first lesson as a trainer."

Mary: "And they're all much more patient than me"

In the event, it became the accepted practice within sessions for participants to seek and offer assistance from one another.

A second pleasant surprise of the impact of the sessions was that they encouraged participants to adopt a more self-reflective manner. One striking example of this was Mary. During the second session preview she said "*I shouldn't get so impatient with Alf²³ but he doesn't keep his eye on where the mouse is going!*" (Mary 2R). It will also be recalled from section 8.4.1 that Mary was prone to be quite aggressive towards her machine. However, as the following extract from her interview shows, the programme had a beneficial impact on her behaviour both towards the machines and people.

Mary "But it has, there are a couple of things it has helped me with. One is , er, helping teach Alf how to use the machines. And I was very impatient with him and ended up shouting at him a couple of times. And because there were other people there, and you especially pointed out to me that I was, that it would be better if I was more patient, I have actually changed my way of operating. I'm quite glad of that.....

Mike: Did you ever feel like hitting the machine in the SPAG sessions?

Mary: No. Well, no, I didn't actually, now you come to say that.

Mike: Did you ever feel you wanted to shout at the machine in the SPAG sessions?

Mary: Yes. Particularly when I put a memory stick in and nothing happened.

Mike: But did you shout? Did you shout?

Mary: I think I did, yes. I didn't swear. Once or twice, but nothing like when I'm here.

Mike: Like when you're here on your own?

Mary: Yes.

²³ Although it was not possible to record the incidents when Mary showed impatience with Alf, I can recall that during the 2nd session she did make a number of comments along these lines.

A third unforeseen development was the social function the sessions began to play with one participant commenting “*Apart from the learning thing it’s a social activity and I am quite happy for it to go on forever and ever*” (Alf 10R). This was recognised by other participants, as the following dialogue illustrates:

Mary: I’ll add something to that. Alf’s wife died last year and I think this has actually given him...

Mike: Ah.

Mary: ... a sort of new lease of life, if you like, really. Yes. Well it’s bound to, you know.

Mike: Crikey Moses. (Mary PI).

As the last comment shows, I was astonished at this revelation and this was for two reasons. Firstly, I had not at all expected the programme would take on such a strong social hue. Secondly, Mary’s comments provided a much deeper insight into the importance of the sessions for the participants than I had hitherto understood.

However, although the sections above show there were many positive aspects to the hands-on sessions, it has to be acknowledged that there were a number of difficulties with the programme and these are discussed in Chapter 10.7.3.

“*We have had a bit of a frustrating day today with machines not running properly, software behaving unpredictably...very frustrating*” (Mike R10) and old frustrations of the participants re-emerged “*Oh for XXXX sake, what is going on here...why has that disappeared...* (Mary S10).

Having outlined the evidence gathered in this setting, the discussion will now shift to provide an analysis of the data.

8.8 Analysis

The evidence presented at the start of the Chapter shows that the participants are dissatisfied with the technology and expressed this in number of ways. It also showed that in this respect they shared the same views as the participants in the other settings.

Their responses to this dissatisfaction offered both a coping strategy for dealing with the difficulties the participants encountered and provided an explanation for why things will not work. On one level, with fatalism, it is something out there beyond control that creates the problem. At another level, with self-criticism, the problem lies within a person but it too is not possible to resolve. The evidence therefore starts by confirming that this group of participants experience alienation. The questions to be addressed here are: how does this alienation manifest itself in this specific context and to what extent can it be ameliorated?

As has been noted in the analyses presented in the previous Chapters, key aspects of Marx's notion of alienation are associated with control of outcomes, control of process, and their impact on relationships. In this setting there are no direct outcomes, in the sense of those described in Chapters 5 and 6, to consider and this does of course present both theoretical and practical problems in undertaking a study of this nature. This is discussed further in Chapter Nine. However it was possible to explore issues linked to process and to consider their impact on social relationships.

The evidence gathered from this setting indicates that it is possible to engage with the adverse consequences of alienation and in doing so, foster a range of countervailing impulses. The data highlight a number of relevant themes in this process, namely collaboration, absence of competition, taking control, and locating ICT training in the needs of the participants. Each of these themes is explored in the following analysis.

A significant facet of Marx's notion of alienation is the threat of the "other". In the hands-on sessions it was evident that within the group dynamic there was no fear of the "other". On the contrary, the process employed fostered a strong appreciation that collaboration and mutual support would be extremely beneficial for the success of the activity. Moreover the evidence indicates that this reached beyond the SPAG members and eventually embraced the trainer. All the participants contributed to

creating a culture that valued the work of the “other” and cultivated an intimate relationship between the individual and the group. Each participant had their own individual needs, yet these were best met by the group working together as a whole. As a consequence, the significant absence was a competitive environment. In some ways this echoes, but in more definite and focused manner, the supportive environment some academics mentioned when referring to scholarly networks such as Ethicomp.

The data also show that the participants’ initial aspirations were accomplished and that other objectives developed organically with activity. Furthermore, as the programme progressed, session content went well beyond learning a new range of technical skills and began to encompass a much wider range of subjects which then posed additional questions for the participants relating to the societal implications of ICT.

The evidence presented substantiates the view that, in this specific context, the emphasis on collaboration offered a glimpse of an alternative to the fatalistic or self-denigrating positions relating to the technology and provided an avenue through which issues connected with taking control of the technology could be explored. The collective approach encouraged participants to make demands on the programme that arose directly from the activity and the manner in which the activity was undertaken.

The data also provide insights into the shift in perspective by a number of participants regarding ICT in that they increasingly saw it as critical to the aims they wished to pursue rather than being something separate from them; as not belonging to them. For other, more experienced users, the process helped engender a more self-reflective view and highlighted modes of behaviour that could be moderated.

However, the data also indicate that while the issues concerning the control of the sessions were addressed by the participants, control over the technology remained unresolved at two levels: the local level which focused on the SPC and the global level

relating to software and hardware in general. This created a contradiction based on what was wanted and expected, and what was available and could be delivered both locally and globally. The ongoing discussions related to the technical resources for the group and the difficulties encountered in seeking to ameliorate these stress the overarching level of alienation within which this group activity took place. In the first instance, that of trying to improve the computer facilities in the Centre, it meant engaging with a management which had control of a budget and that itself was accountable ultimately not to the users but another “other”, higher body. For the second technical problem often mentioned in the sessions, that concerning the nature of the software itself, the participants had absolutely no control whatsoever; here the “other” had complete control.

This tension also brought into relief a much wider question about control in general as was exemplified by the discussions on free and open source software. The data also show that this contradiction had a more profound impact in two ways. The experiences within the group can be described as being of both change and continuity. Here change can be identified as the possibility of engaging in a form of practice that challenges alienation even if that challenge is restricted to a specific context of definite time and place; continuity meaning the programme could not step out of the general alienated environment within which life is lived.

The second consequence is that the process of change was not linear. When difficulties arose in later parts of the programme they provoked a reference back to alienated attitudes evident before and at the start of the process such as, for example, Denise’s comments described in section 8.2 above

8.9 Conclusion

This Chapter has been concerned with applying Marx’s theory of alienation in a non-work situation and has sought to test if the theory has any explanatory power in such

an environment. It has also been concerned with exploring what possible strategies or coping mechanisms people can utilise to manage the problems associated with alienation. Finally, it has attempted an assessment of one such mechanism to see if they can be in any way effective.

The start of this Chapter outlined the commonality of experience shared by the participants in all three settings that have formed the focus of this research. The Chapter has also examined the alienated experiences of SPAG members arising from the lack of control over resources, and more indirectly, the nature of software. In an attempt to offset these experiences this aspect of the study sought to construct an environment within which the alienation often associated with ICT could be identified and challenged. The evidence and the subsequent analysis have shown that while it is possible to engage in activity that can confront alienation in a specific and concrete context, there are more fundamental issues of control that cannot be resolved by these engagements alone. The next Chapter considers to what extent the research questions have been answered and how far the research aims have been met. It also provides a critique of the research.

Chapter 9: Overview of the research: analysis and critique

9.1 Introduction

The primary intention of this doctoral research was to consider how far Marx's approach to alienation helps theorise the experience of the participants who were involved in the settings. As the major analytical output arising from the research has been recorded at the end of the Chapters concerned with each setting, the aim here is not to rehearse those discussions but to focus on the differences and commonalities evident across the settings. Thus the purpose of this Chapter is to bring out the components within each of the settings and to present them in a coherent overarching discussion by linking them more explicitly to the research questions and aims outlined in Chapter One. In doing so, the discussion will establish the links between the settings and will reference back to a number of the texts covered by the literature review.

9.2 Answering the Research Questions

The following discussion will be structured around a framework informed by the research questions detailed in Chapter One and in doing so will focus on Marx's theory of alienation looking at control of product, control of process, relationship with others, the view of oneself, and the importance of totality, mediation and immediacy. As was outlined in the literature review, Marx argued that capitalism, in which labour becomes a commodity, undermines creativity and intensifies alienation; alienation arises from the contradictory relationship between labour and capital. More specifically he argued that in the first instance, we are alienated, estranged, from the products of our labour. The alienation that a worker has from the products of her labours impacts on the relationships she has with world including herself. Thus alienation "is not only in the result, but also in the *act of production*, within the *activity of production itself*" (Marx 1970: 109). Further Marx focused on what he called our species being. Labour is the

life activity of the human species and he argued productive life is critical for what he termed “species being”(Marx 1970: 113). The final expression of alienation for Marx arises from the previous three and is related to the collective endeavour Marx identified as being critical to productive life. Yet, maintained Marx, commoditised labour constructs an environment within which creative, cooperative, collective endeavour is undermined

Research question 1

The first research question focused on how valuable Marx’s theory of alienation is in explaining the experience of participants in three chosen separate settings related to ICT. Participants in each of the settings articulated significant adverse experiences that dovetailed with the categories described in Marx’s theory of alienation namely: control of product; control of process; relationships to other people; and the relationship to oneself. Moreover, the evidence indicates that for the participants in each setting, each of the categories is connected to and interdependent on the others. Thus the lack of control over product is intimately related to the lack of control over process thereby vindicating the first relationship Marx argued exists between product and process. Although this is most clearly observable in the setting involving ICT professionals, it is also evident, but perhaps at a more subtle level, with the scholars. For the SPAG participants, lack of control over process, in this instance, the available software and hardware, including output devices, had a direct impact on what they were able to achieve. The research associated with the SPAG setting emphasises the importance of using Marx’s theory of alienation to investigate a non-work related environment.

The evidence also supports two further arguments crucial to Marx’s version of alienation. By showing the interconnectedness of categories, at the vertical and horizontal levels, it emphasizes the importance of adopting a totality of view thereby offering more fruitful avenues of research rather than alternative views of alienation

such as, for example, that of Seeman (1959), which focus on discrete aspects of the condition. In doing so, the evidence emphasises the importance of the relationships between totality, mediation and immediacy.

The evidence presented in this thesis supports the contention that it is crucial to link all the elements that characterise alienation when studying the condition thereby highlighting the weaknesses of researching alienation from the positions advocated by either Seeman (1959) or Blauner (1964). It also underlines the argument that researching alienation entails more than looking at job or role satisfaction. Further, the thesis offers substantial support for a view that says it is necessary to apply notions of alienation in a much more rigorous manner than, as the literature review indicates, simply using the term as a short-hand for vague feelings of dissatisfaction. The evidence gathered from the research undertaken for the three settings shows that alienation is more than a consequence of specific contexts. For the participants in these settings, the alienation they experience emanates from the general objective conditions.

Secondly, as the research undertaken for this doctorate involved examining environments that were of a dynamic nature with, for example, circumstances that ICT professionals experience every working day, it adds credibility to the view that alienation is a state experienced as a norm rather than as an aberration and is thus an ever present and constant condition. This is another contrast to Seeman's perspective which essentially sees alienation as an abnormal condition and one which is dislocated from a total general environment. The evidence also challenges the view of Blauner (1964) who maintains that it is possible to alleviate alienation through specific interventions, which in his case was technology. As this thesis has shown, within the settings associated with the ICT professionals and SPAG, technology, in the form of ICT, is experienced in a range of contradictory ways. This study has also shown that

those involved with researching the ethical and societal implications of ICT are also subject to alienation. As a consequence, the evidence very much suggests that Marx (1970) was right when he talked of alienation being the all embracing experience generated by capitalism.

9.2.2 Research question 2

The second research question focused on how effective is the explanatory power of Marx's theory in identifying a commonality of experiences both within and between the three settings. The evidence obtained and its subsequent analysis indicate that his theory has much to offer but that applying his perspective requires a concomitant appreciation of the importance of mediation for specific contexts. In doing so, the evidence emphasises the importance of the relationship between totality, mediation and immediacy. As has been argued earlier, for Marx, alienation is itself a contradictory phenomenon, it is simultaneously both abstract and concrete, that is it exists at a general level but is expressed in specific concrete conditions. The evidence obtained from this study goes to support this perspective.

A comparison of the experiences of all three groups vindicates this approach to alienation in a number of respects. For each of the three settings, control of process was by someone else was seen as a major problem. In a working environment this was most keenly observable for the ICT professionals in that it rests very much at a surface level because of the mechanisms at play. However, the setting focused on the scholars also reveals that in conditions where it appears that greater control of the process exists, using Marx's theory of alienation facilitates an exploration at a deeper level thus drawing out potentially hidden aspects of alienation.

In the SPAG setting, control of the process was evident in both immediate and remote senses. Immediate in that in this case the management of the SPC, had direct control over both the environment and ICT facilities SPAG members were able to access, so

much so that when participants discussed raising their concerns, it was the one time they did not want their comments recorded. The remote sense being that where they did seemingly have more control of the available technology, during the hands-on sessions for example, they found the nature of the technology itself threw up all manner of problems. The evidence from the settings supports the view that Marx's presentation of alienation is a powerful tool for explaining the common yet differentiated experiences of the participants in the three settings. This it achieves by enabling the identification of the general categories that go to make up alienation as well as showing how these categories are manifested in specific instances. Here the importance of mediation is thrust to the fore.

9.2.3 Research question 3

This question asked to what extent Marx's theory can be of use in providing a framework for undertaking the research in the three settings and sought to focus on the extent to which his theory of alienation could positively aid the research process by providing a robust framework for undertaking work associated with this study. Marx's text of 1844 (Marx 1970) infused the spirit and practical work with which this study was undertaken in a number of ways. As well as identifying the core components of alienation, Marx continually refers back to their impact on issues such as creativity, competition, collaboration and the essence of our humanity. In addition, as has been mentioned above, his perception of alienation emphasises both the abstract and particular nature of the condition. Thus the theory informed the study by: encouraging the pursuit of qualitative research agenda; impacting on the nature of the questions asked during the interviews; influencing the decision to focus on more than one setting and to select contrasting settings; helping to establish the tone and structure of the hands-on sessions with SPAG; and motivating the choice of PAR.

Therefore the theory provided a line of march which, although it did not foresee what particular problems were likely to emerge or what results would be revealed, did encourage a way of working that urged the study to delve deeper into the issues under investigation and to take the enquiry into unanticipated directions. Such moments validated the approach and added greater confidence in the method. This in turn strengthened the resolve to complete the study at those moments when practical difficulties, in particular interventions which led to a dramatic change in my domestic circumstances, appeared hard to overcome.

The argument here is that the data obtained from this study and the subsequent analyses could not have been achieved if the study had relied on other theories of alienation. In short, there was an intimate interdependence between theory and practice. Although the significance and relevance of this thesis are yet to be determined externally, the feedback from the ICT professionals and members of SPAG indicates that it does articulate and theorise their experiences. It tells their stories. Having looked at research questions one, two and three, the discussion will consider the last question posed at the start of this thesis.

9.2.4 Research question 4

This question concentrated on to what extent PAR (PAR), linked to CR, can make a positive contribution to research of this nature. As was argued in Chapter Three, PAR offered possibilities by way of developing strategies for coping with alienated experiences linked to ICT. This was certainly the case for the SPAG setting where participant control featured quite significantly in the research activity. Here the process worked quite well leading to a significant amount of interesting data. Nonetheless, it must also be recorded that as the data generated and their subsequent analyses show, PAR cannot of itself resolve the fundamental contradiction at the heart of ICT and consequently it is unable to alleviate the alienation associated with the technology.

However, employing the technique revealed that encouraging a cooperative, non-competitive environment brought to the surface a glimpse of the possibilities this way of working could fruitfully offer.

The use of PAR had benefits for most of the participants in this research and therefore its impact went beyond satisfying the immediate needs of this research. For the SPAG participants it resulted in the creation of an ICT training course which confronted the alienated experience often associated with such activity and included a number of tangible results one of which was a campaigning YouTube video. For the ICT professionals it resulted in a briefing paper that was initially circulated to all the participants in that setting and subsequently distributed widely within the trade union representing these workers in the UK. In the case of the scholars, evoking the spirit of PAR led to a discussion on alienation at an Ethicomp conference. Thus adopting PAR enabled the study to result in a positive and productive experience for the researcher and the participants in the research.

Having focused on the degree to which the thesis has answered the questions posed at the start, the discussion will now consider to what extent the aims of the research have been realised. This will be followed by a look at some of the limitations and difficulties associated with the study.

9.3 Achieving the aims

The following section of the thesis seeks to establish if the aims of the research, detailed in Chapter 1.3, have been met and is structured around these aims.

9.3.1 A positive contribution

The first intention was to undertake a study that would contribute to the research concerned with investigating the relationship between society and ICT. This, it is believed, has been realised in three ways. Firstly, as Chapter Two notes, there is a tendency in the existing body of knowledge concerned with this topic to use the term

alienation as a vague descriptor of a condition experienced by people using ICT. This research, by focusing more tightly on what alienation means and how it arises, makes a significant contribution to the subject area by showing that a more rigorous use of one particular theory of alienation can provide an effective explanatory tool for understanding behaviours associated with ICT and those involved with ICT.

The research also adds to the field by showing that alienation linked to the technology is not the property of a relatively small number of end-user groups; it is a condition experienced across a range of user groups and appears therefore not an aberration but possibly the normal circumstance. This has implications for any research that takes, for example, the notion of ICT natives as its starting point or assumes that ICT professionals have significant control over their working environment, such as research concerned with the professionalism of the ICT industry. Finally, this research adds to the field by indicating that existing research could be re-visited fruitfully and viewed through a prism informed by alienation theory to provide deeper insights into how people experience ICT.

9.3.2 Supporting the re-discovery of alienation theory

A second intention of this research was to buttress and aid the re-discovery of alienation theory in researching the impact of ICT. The approach adopted, the data collected and the analyses presented, all of which drew upon Marx's theory of alienation, provide evidence that using theories of alienation can illuminate a number of useful insights into how ICT is experienced. As such the work adds to the increasing, albeit small, recent body of work applying alienation theory in the context of ICT.

9.3.3 A test-bed for Marx's theory of alienation

The third aim of this research was to develop a rigorous test-bed capable of putting Marx's theory of alienation under stress. The choice of three distinct environments, one of which was a non-work setting, linked to the desire to follow the most challenging route within those settings, did satisfy this aim. Marx's theory of alienation informed the

structure and question content of the interviews used in the settings, the attempt to apply PAR during the research, determined (along with a CR approach appreciating the real, the actual, and the empirical layers of reality), the level of analysis and facilitated an exploration of the contradictory views of the participants, and provided an explanation for why those views were held. The evidence presented in this thesis provides support for the view that Marx's theory of alienation did work effectively under stress thus underscoring the view that his perspective on alienation offers a more than credible approach in researching this topic.

9.3.4 The importance of participatory action research

The next aim was to assess the pertinence of PAR methods to studies of this nature. In this respect the PAR was particularly successful with regard to the SPAG setting where applying the principles of PAR enabled a continuous and productive relationship with the members of the group. For the other two settings the use of PAR was more problematic and while the relationship with the participants in these settings was not as intense as that with SPAG, the PAR approach encouraged a focus on specific outcomes for all three settings, referred to in section 9.2.4 above, other than this thesis. This suggests that using PAR in this type of research offers the possibility of yielding significant benefits

9.3.5 Areas of further research

Identifying further areas of research was another purpose of the study and the following discussion considers the implications for further research centring on the participant groups covered by this study. This discussion is structured by first looking at further research related to ICT professionals. This is followed by looking at scholars. Research on end-users is then addressed and the discussion concludes with reference to possible further research on other themes.

Using Marx's theory of alienation to undertake and complete one doctoral research study is not enough to prove its validity in all circumstances; it shows that it offers

potential but that potential has to be realised by testing the theory over and over again. Here Engels' comments about nothing "being final, absolute, and sacred" seem particularly pertinent. (Engels 1941: 12) Until that happens, the results presented in this thesis have to be categorised as provisional. Secondly, the research methodology chosen for the study, CR, cautions against all attempts to draw definitive and final conclusions from any piece of given research; results must always be considered as fallible, subject to further rigorous examination. Finally, it would be foolish and indeed extremely arrogant not to acknowledge that much good work concerned with the societal implications of ICT has been, continues to be and will be done without embracing the perspective advocated here. There are innumerable practitioners across a broad array of activity seeking to reconcile the contradiction stated at the start of the thesis.

However, while acknowledging there is a deep well of knowledge in the subject area from which researchers could draw and examine from a shift of perspective, such work would encounter major difficulties. The first comes from the reluctance of academics to share their research data. It is the case that data can be obtained through open access sites such as the SSRC, ESRC or the UK Data Service but these are not always easy to access and retrieve and often do not include either sound files or transcripts of structured, semi-structured or unstructured conversations such as interviews or focus group sessions.

The second arises from the issues associated with the drive to produce original research so that it has a better chance of being published. The notion that existing data should be re-interrogated using a different critical perspective does not fit snugly with the imperatives of research assessments exercises or with the priorities of funding bodies even if such work was to be beneficial and illuminating. We are here reprising some of the themes discussed in Chapter Six. This situation poses a real problem for

scholars involved in this work because it would require challenges to the straitjacket of conventionality and a focus on questions associated with power and control. Perhaps research using PAR could tease out coping strategies academics could use in an attempt to confront and rebut, if unable to solve, the alienation they experience. The SPAG example could be instructive in undertaking such a task.

Whatever route is chosen to revisit existing research, the evidence presented in this thesis suggests that such endeavour is likely to encounter problems and situations that cannot be adequately explained or resolved using conventional theoretical frameworks and this explains in part why there is such a wide number of references to a vague notion of alienation. The term is in effect shorthand for something that remains for many in the field unexplained. Therefore it is hoped that the evidence presented within this thesis will provide the motivation for researchers to re-examine their existing work using Marx's theory of alienation and in doing so, they may wish to recast their previous findings to bring new insights to the discussion.

So one issue that could be reworked using alienation theory is the impact that alienation has on the working lives of the ICT professionals with, for example, research on who decides what project methodologies are used in ICT and how they are to be applied. Additional work could focus on agency of change which looks at what control the professional, indeed the profession as a whole, has over the way in which the industry is changing with the rapid emergence of commodity skills such as basic programming, routine software maintenance and testing, and elementary business processes. Again, the significant amount of work which has been done on these questions could be refashioned using theories of alienation. The attraction of following such an option is that it would not require much, if any, additional data collection

Looking more specifically at future research, Chapter Five, concerning the ICT professionals, pointed to the paucity of qualitative research that engages with this

group in a collective environment. Therefore, for example, research that takes as its focus the role of the ICT professional in promoting the ethical use of ICT could benefit from a shift of perspective that sees the professional as one in control to a view of the professional as someone who is, in the main, powerless. Thus, for example, researchers examining the connection between ethics and the ICT professional would need to take cognisance that the professionals have in effect very little control over what they make, for whom it gets made and how it gets made. Another line of research focused on this group that takes alienation as its starting point, could investigate the coping strategies they employ to deal with their alienated condition.

Further research using theories of alienation and PAR would provide deeper insights into the problems this group faces such as, for example, the contradiction discussed in Chapter Seven between what they feel about their occupations and what they would do if given the opportunity to quit their jobs.

A similar avenue of research could be undertaken with scholars. For both groups, research linking alienation and resistance could be explored using PAR. However, it is appreciated that a major difficulty in such an activity would be creating an enabling structure for such work to be undertaken. Chapter Six indicated the way in which alienation is experienced by scholars. Further research in this area could include investigating how academics are seeking to use ICT to counter the problems they face. Here research could cover a number of areas such as how the development of online open access journals is being used to offset the growth of academic publishing houses; the degree to which such developments counter alienation; and the possibilities of drawing together ICT professionals and scholars researching ICT into an ongoing conversation on alienation. Further research could target different groups of scholars focusing on, for example, age or gender.

Looking at the third group of participants, research focused on why and how older adults use ICT, could make good use of alienation theory to examine the set of relationships determining usage of the technology. An aspect not covered by this study could consider the different ways, if any, that older women and men approach ICT. Similarly, it would be interesting to undertake research employing theories of alienation, particularly within a PAR framework, to explore whether there are any differences between different generations' ICT usage; one can imagine the dynamic and invigorating experience of running computer hands-on sessions involving participants from the range of generations. The research also has implications for implementing strategies associated such as, for example, e-government for older citizens. The evidence presented here indicates that the collective, shared and, most importantly, owned projects based on PAR and being sensitive to the alienated experiences of ICT use would be a favourable way to proceed with such policy initiatives,

Looking beyond the immediate groups embraced by this study, there has been some recent research looking to apply alienation theory to social media and while much of this work has been at a theoretical level, it could be used, in a PAR environment, to examine phenomena such as fan activism associated with *My Drunk Kitchen*; *Hank and John Green's Vlog* on Tumblr or the success of sites such as *Avaaz.com*. I did undertake some research linked to this subject during 2001/02 but was unable to develop it further at that time (Healy 2002).

Having identified potential and, just as important, manageable avenues of research utilising the approach favoured here, the following section discusses the degree to which the final aim concerned with relevance was achieved.

9.4 Looking beyond the degree

The final aim of this research was to produce a piece of work that has relevance and a significance beyond the immediate goal of achieving an academic qualification. There

are of course problems with trying to assess how far this aim has been met; we throw a pebble in a pond not knowing how far and where the ripples will travel. In this respect the comments made by the scholars in Chapter Six about having little control over outcomes can be applied to this thesis.

However, there is some evidence to show partial success. As a result of the SPAG sessions, members of the group have become more confident about using the technology and have continued to develop their skills. As has already been mentioned, the Chapter on ICT professionals has been circulated within a trade union section seeking to recruit such workers into the union and I am continuing to work with one of the ICT professionals to develop and promote an ICT toolkit based on the use of free technologies for campaign and charity organisations; this was his idea which we are following up. At this point it is impossible to determine what impact, if any, this thesis will have on the academic community. However, my effort to avoid lapsing into what Thompson has called the break in the circuit between intellectuality and practical experience will also influence the extent to which this aim will be achieved (Thompson 1978). Thus, all that can be said at this point is that this thesis offers a conditional possibility of achieving this aim; there is still much work to be done.

Having looked at the extent to which this research has answered the research questions and achieved its stated aims, the discussion will now turn to critique aspects of the research and this forms the subject of Chapter Ten, the concluding section.

Chapter 10: Conclusion: Research critique, reflections, implications and uniqueness.

The previous Chapter has précised in some detail the development and progress of this study and has shown that the research questions and objectives set at the outset have been answered and achieved. This Chapter opens by looking at some of the issues associated with the process used in the research and then goes on to consider what other possible routes that could have been followed. It finishes with a number of remarks about implications.

10.1 Process

Chapter Four described the processes involved in contacting participants for this research, outlined the method used to obtain data and provided descriptions of both the nature of the participants and organisations to which they belong. This discussion will develop a critique of this activity and focus on four key questions: to what extent did the selection of the participants and organisations provide what may be termed a self-fulfilling role in the research (i.e. did their selection pre-determine the research outcomes); to what extent can the participants be said to be representative of wider social groupings; would the processes used in the selection of participants have had an adverse impact on the research by way of creating a bias; and finally could a similar process be employed if the research was to be continued into other areas? The following discussion centres on these questions.

10.2 A self-fulfilling prophecy?

It is to a certain degree true that the participants from the three groups, SPAG, the ICT professionals and the ICT ethicists, came to the research programme with a number of criticisms of ICT and its role in society as a whole. This is hardly surprising given that almost everyone who uses ICT has a view on its importance or otherwise. That being said, the articulation of their criticisms was not informed specifically by the notion of alienation which forms the substance of this research programme.

With SPAG, as was seen in Chapter Eight, criticism of the technology was couched in everyday language and exhibited an air of fatalism if things did not go quite the way that was planned. At the beginning of the research task involving SPAG, it was clear that by-and-large participants considered that any perceived practical problems they experienced were the fault of the users rather than arising from the actions of others, such as software or hardware designers. The group of ICT professionals had a sharper focus than SPAG when discussing ICT and were aware of systems failures and the implications for end-users, after all it is their job to develop, test and implement a wide range of IT systems. However, during both the group session and the individual interviews it became observable that they too were not familiar with the theories associated with alienation in general, or as they related to their own work experience. The academics researching ICT and ethics and/or the societal impact of the technology do draw upon theories or create a specific theory in their everyday practice to explain phenomena. However, the email exchanges in preparation for the interviews and in the opening remarks of the interviews indicate that virtually none had a familiarity with the approach adopted for this research. The foregoing indicates that the choice of organisations and participants did not create a self-fulfilling function in terms of the topic and approach adopted in this research.

10.3 Resonance with other population groups

The purpose of this research was to test how robust Marx's notion of alienation can be in helping to analyse the relationship and impact of ICT on and between people. Three different settings were selected to undertake this task precisely in an attempt to avoid the problem of what we might term the isolation of research activity and the subsequent problems of inapplicability in otherwise different environments.

Perhaps it could be argued that the relatively limited number of participants in each setting is a weakness and there would be a certain amount of sympathy with this

criticism. However, the convincing analyses arising from the data, as described in earlier chapters, confirm that the data have a high degree of integrity which further implies the profiles of groups and people chosen will enable researchers and others to identify a degree of resonance with wider, similar populations.²⁴ It is hoped that the stories within this thesis will touch a cord with many who have a problematic relationship with ICT.

Furthermore, sending a copy of the relevant chapters to the participants in each setting (in the case of the scholars copies of Chapters Five-Eight were sent) allowed for member validation thereby further strengthening the robust nature of the data (Kuper *et al*/2008b). Moreover, in two instances, that concerning the ICT professionals and SPAG, it was possible to engage in member reflection (even as late as three months before submission of the thesis) which added to the data collected during the group and individual interviews. In addition, Chapter Five was circulated by participants to a wider audience of ICT professionals.

10.4 Triangulation

A further strength of the research undertaken for this thesis is that has not relied on one or two settings with which to investigate alienation and ICT. Opting for three settings buttressed its finds by providing a triangulation for validity. Although qualitative research has a considerable pedigree in terms of value in research, questions about the quality of results persist. While the decision to focus on three settings for the study was not driven by a quality agenda, it has fed through to adding a further element of quality control by way of triangulation. Dick (1979) describes triangulation as the application of differing methodologies in the collection and analyses of data in the study of the same phenomenon. Dick (1979) also argues that in qualitative research,

²⁴ For a further discussion on the value of resonance in qualitative research see Tracy (2010). and Gordon and Patterson (2013).

triangulation can employ the use of multiple comparison groups and refers to the within-method which “essentially involves cross-checking for internal consistency reliability” and the between-method “which tests for the degree of external validity” (Dick 1979: 603). Fielding (2012) notes the problems with applying triangulation to social research given that the “social world is dynamic and validating an analysis by replication “can present difficulties (Fielding 2012: 126). For this study a form of triangulation was developed through the choice of three separate settings for the research. While triangulation often focuses on data collection validity, in the context of this study triangulation is related to the effectiveness of Marx's theory of alienation. As will be seen in subsequent chapters, the evidence deriving from the three chosen settings dovetail to present an overarching analysis of the relevance of Marx's theory of alienation in helping us to understand the way we experience ICT.

10.5 A possible bias?

The points made directly above help provide a reassuring response to the question concerning the possibility of bias in the research. The choice of organisation and participant did not of itself predetermine the outcome of the research. In addition every setting had its own relatively unique set of characteristics and the research activity differed within each thereby provided a multiplicity of experiences from which evidence could be drawn.

10.6 Generalising the process

The next question for this section concerns whether the same process used for this study could be utilised in future research. PAR already has a proven track record for research in other fields and in this instance proved effective particularly in the scenario involving SPAG. A major regret was that it was not possible, because of financial, logistical and temporal restraints, to create a collective group-based investigation

consisting of ICT professionals, academics and pensioners. The ideal scenarios would have been research on a common theme conducted in a PAR environment involving two groups with members from each of the three populations targeted for this study. The technical capability to achieve this is currently available but it would require substantial effort and resources to establish and sustain such an activity.

Perhaps a more achievable ambition would be to focus on the limitations arising from the absence of a collective discussion involving the scholars. Conferences would seem to be one possible avenue, but here the problem is finding the time and space at such events given that they are primarily geared towards enabling academics to present their own work or assess the work of others. Perhaps a funding body would be prepared to finance a workshop consisting of 10/20 academics, of a similar composition used for this research, focused on the theme of alienation and ICT. Although it is unlikely to happen, the results of such an extended discussion would advance considerably our knowledge in this area

10.7 Other routes

While the comments above refer to issues internal to the scope of this research, there are other criticisms that could be made arising from the range of the research scope itself. This study has taken Marx's theory of alienation as its starting point and has tried to employ PAR as far as possible focusing on three contrasting settings. One other approach might have been to run parallel studies within the same settings using at least one other theory of alienation, for example that of Seeman. The major problem with pursuing such a line of study would have been a resulting increase in the magnitude of work since it would have required each setting to have been investigated at least twice. Such a task would have proved very difficult to achieve given the available resources. This difficulty might have been mitigated by employing a multiple theory approach to a reduced the number of settings. While the task would have been

more manageable, it could have resulted in a weakness linked to the loss of applicability of findings across a range of environments thereby undermining the process associated with triangulation. A third possible research strategy may have been to focus on using a multiple theory approach in just one setting but to cover a range of different control groups. This would have resulted in a tight focus but would have lacked the breadth of study necessary to satisfy the demands implicit in the research questions.

There is also a more general criticism that could be made about employing the possible approaches mentioned above which relates to the status of theories of alienation to researching ICT. Implicit in each of the alternative routes is the assumption that theories of alienation already have a credible standing within this particular field of study; this is not the case. As has been mentioned previously, the research undertaken for this doctorate has attempted to show the relevance of Marx's theory of alienation and as such has chosen to focus applying this perspective to different settings to see if the data and their subsequent analyses advance the argument about employing theories of alienation in a more rigorous manner.

However, while there may be minor criticisms of the approach adopted for this study, on balance it is considered that the process used for this research was suitable given the status theories of alienation in the subject area, the ambition of the study and the available resources. So far this Chapter has attempted to critique the processes employed in choosing, contacting and involving the subjects of the research. It has also considered other possible routes the research could have followed. While there are some issues that could be of concern, the overall conclusion is that the method, people and organisations preferred for this study could be justified since they have enabled the research programme to deliver adequate sets of data thus providing material for

analysis. The next section is a reflection on the research process including difficulties encountered during the study.

10.7 Reflecting on the research process

10.7.1 Setting one – ICT professionals

While comments have already been made in Chapter Four about the way in which the participants for this setting were selected and approached, there are a number of issues that emerge during a reflection on how the research for this setting progressed. The ICT professionals who participated in this study showed a high degree of engagement with the process and ideas that governed the research resulting in informative discussions during the focus-group session and the individual interviews. Their commitment to the process can also be gauged from their readiness to become involved again after a 12 month break in the research. Further, they acted as peer reviewers for the relevant sections of the thesis as they applied to them and provided comments on the text. It was also their suggestion that the relevant sections should be circulated as a briefing document within their union. Organising and running the focus group session involved the participants and all the interviewees were prepared to use Skype. Thus these logistical aspects of the research process were relatively straight forward. From the email feedback related to the thesis and subsequent encouragement received related to the viva process, it would seem that for the ICT professionals, participation in the study was seen as a worthwhile activity.

From my perspective however, there are a number of issues that should be highlighted. The first is that it was not possible to organise a second focus group session that could reflect on and build upon the outcomes of the first session. While the feedback from the ICT professionals on those parts of the thesis that applied to them was extremely valuable, it is felt that a further collective discussion based on the thesis text may

have yielded further data thus enriching and deepening the subsequent analysis. Such a process would have also allowed for the greater application of PAR in this setting.

A further issue arising from the setting related to my level of prior knowledge. During focus group session and individual interviews it became clear that it would have been beneficial to have had, ahead of the data gathering process, a greater appreciation of issues such as use of TUPE, 'just in time' management techniques as applied to the ICT industry, and benching. This would have enabled the creation of alerts (to aid the anticipation of issues that may need to be addressed) that could have been used during the discussions with the ICT participants. It would have also strengthened the use of CR in that it would have offered greater depth of insight into the actual (from a CR perspective) working conditions of ICT professionals. The point to be taken from this is that such knowledge can be carried forward into further, post-thesis, studies of this sector.

10.7.2 Setting two – Scholars

As has been mentioned in Chapter Four, in terms of gender, experience, location and interest, the range of scholar participants is considered adequate for this study. The scholar participants were prepared to connect with the objectives of the study and showed a positive engagement with the process during the interviews. The interviews were undertaken using Skype and this process encountered few technical difficulties thereby enabling the collection of appropriate data. The process was also effective from a CR perspective in that the interviews allowed access to aspects of the "actual" that had not been anticipated such as the resentment of newer researchers and the fatalism of more experienced researchers to the publishing process.

However, unlike the other settings, no opportunity existed to enable the application of PAR apart from the limited possibilities offered by the presentation of a conference paper. Similarly, there was little feedback from the scholars and, of the three groups,

they seemed the least interested in reflecting upon the relevant sections of the thesis. A further problem was that unlike the other settings it was not possible to organise collective activity on the themes covered by the research. These are considered problems that, while not profoundly impacting on the nature of this study, should be corrected during future research. This could be done by limiting the geographical location of scholars.

10.7.3. Setting 3 - SPAG

Chapter Eight covering this setting has already described many of the positive elements linked to this setting and while the overall view from all the participants, including me, was that the programme satisfied a number of pre-signified ambitions as well as encouraging the emergence of a series of positive, unanticipated benefits, there were some problems associated with attendance, exclusivity, timing, continuation, an exit strategy, and alienation itself. The first of these, attendance, was erratic with five participants eventually forming the core of the group. Others came and went over the period the programme ran and there was an increased attendance towards the end connected to the creation of the YouTube video. While it is difficult to determine why the variability in attendance occurred, there is no evidence to indicate that it was a consequence of a resource problem, such as the availability of one tutor, or from the way the sessions were structured. Variable attendance did not have a negative impact on the data gathering process since the core members of the group maintained their commitment to the process.

The second problem, exclusivity, emerged from one of the strengths of the activity, namely group cohesiveness. Here, it was felt that since the group had worked and developed together, perhaps other people coming into the programme later, particularly after the end of the second round of sessions, would not fully understand the nature of the activity. The very success of the group created the problem, which is associated

with group development and relates to exclusivity and a reluctance to open-up to new participants. This problem was discussed at the end of a session in December 2010 and without much argument, the participants recognised the need to reach out beyond the original members. As a consequence they agreed to produce a new round of publicity advertising the sessions. This material became available during the first part of 2011 and was circulated within SPAG during February 2011. However, as it became apparent that the future of the sessions was in some doubt, the impetus from within the SPAG itself to recruit new participants faded.

The third problem was linked to the timing of the sessions. Here the availability of a group of quite busy people drove the dates and timings of the sessions. While a settled pattern was established in the first round of sessions, the second and third rounds were, while being regular, less frequent. Pressures of work arising from the impact of teaching commitments and timetabling requirements meant that when the sessions restarted after the summer break 2010, I was only able to participate in the SPAG programme on a fortnightly basis. The group responded to this by agreeing to meet and work together during the intervening weeks.

This, in part, eventually contributed to the next problem, the inability of the programme to continue independently of my input. When my involvement with the sessions ceased, the programme also ended. The hope had been that the sessions would become self-sustaining and while a limited number of sessions did occur after my departure, in reality, this ambition was not realised.

A further difficulty was the reluctance by me to bring the activity to a fitting conclusion. While the exit strategy was handled appropriately from an organisational perspective with the hands-on sessions concluding with the production of an on-line video and a clear and definite end-date agreed, I found it difficult, emotionally, to adhere to this agreement because of the close affinity I had developed with the group. I was aware

from the literature concerning PAR that exiting such research is a complex and contradictory process for researchers arising from the very strong empathy they can develop with other participants. Although intellectually prepared for this eventuality, emotionally it was a very difficult thing to end the programme. In the event, external, very alienating, forces, in the form of staff cuts at my university, meant I left my work as a full-time scholar and family commitments led to a relocation out of London.

The final problem with the programme was that while it was successful in making participants aware of issues of alienation and ICT, and was able to address some of these issues at a very concrete and local level; it was not able to overcome the wider context which fosters alienation in the first instance. As result, alienation expressed itself within the sessions even at a late stage. I was not immune from alienation linked to the technology. *"We have had a bit of a frustrating day today with machines not running properly, software behaving unpredictably...very frustrating"* (Mike R10) and old frustrations of the participants re-emerged *"Oh for XXXX sake, what is going on here...why has that disappeared..."* (Mary S10)

10.8 Implications

It is customary in the conclusions of research concerned with alienation and ICT to include a number of policy recommendations, *a la* Blauner (1964: 196), that can be implemented by organisations such as governments, educational institutions or commercial enterprises. Often the targets of such policy proposals are human resource departments (Chiaburu *et al* 2014; O'Donohue, and Nelson 2014, Shantz *et al* 2014). This arises for two reasons. The first is the way alienation is studied with the emphasis on the processes advocated by either the Seeman or Blauner approach. Second, and perhaps more influential, is the way in which educational research is predominately directed by, undertaken for, funded by and inspired by needs of capital and /or state structures. Thus the worth of academic research is measured by how effective it can be

in supporting the primary objective of capital, to make profits, and what policy initiatives can be constructed to facilitate this process. There is not anything in the evidence or conclusions presented in this thesis that can serve the interests of either capital or the state. On the contrary, the arguments made above support the view of Marx by showing that alienation is not an anomalous condition in the three settings selected for this study. An extension of the argument could be made that alienation is embedded in the fabric of capitalism itself and is one which capital is both the cause and the beneficiary. As Marx says the “worker exists as a worker only when he exists for himself as capital; and he exists as capital only when some capital exists for him. The existence of capital is his existence, his life; as it determines the tenor of his life in a manner indifferent to him” (Marx 1970: 120). Without alienation, capitalism would cease to function since alienation arises from the contradictory relationship between labour and capital.

This leads back to the argument made by Marx in the *Manuscripts* is his discussion about private property when he argues that:

The positive transcendence of *private property* as the appropriation of *human* life, is therefore the positive transcendence of all estrangement – that is to say, the return of man from religion, family, state, etc., to his *human*, i.e., *social*, existence. Religious estrangement as such occurs only in the realm of *consciousness*, of man’s inner life, but economic estrangement is that of *real life*; its transcendence therefore embraces both aspects (Marx 1970: 136)

For Marx , the “transcendence of private property is therefore the complete *emancipation* of all human senses and qualities” (Marx 1970: 139). If this line argued is followed, and if it is agreed that the evidence presented in this thesis is supportive of Marx's theory of alienation, one conclusion arising is that the first step in countering alienation experienced using ICT would be to take all ICT's out of the control of capital and put them under communal control.. In making this statement it is appreciated that

this “policy” may not be to the liking of many of those who currently own and control the technology and a number of problems would be encountered in attempting its implementation.

That may be the big picture but are there any implications flowing from this research that might be of a more immediate nature? Discussion of these issues shall be structured around the three settings and shall open by looking at the ICT professionals. Although the evidence underpinning this thesis shows that ICT professionals experience alienation, as was noted in the literature review, it is only fairly recently that research concerning alienation and ICT professionals has become a subject of research. It was also noted that such research primarily draws its theoretical and methodological influences from a quantitative perspective and focuses on issues associated with job satisfaction. A significant implication of this study is that further research on ICT professionals needs to embrace Marx’s theory of alienation since it moves beyond the straightjacket of and the inadequate categories associated with job satisfaction. The argument presented within this thesis also has implications for any research such as, for example, that concerned with the professionalism and the relevance of codes of ethics of the ICT industry, or research that starts from the premise of ‘ICT natives’ who are at home with the technology. Such activity should not assume that ICT professionals have significant, if any, control over the products they produce nor their working environments. Further implications could be that in researching alienation and ICT professionals, methodologies incorporating PAR would have beneficial results. It may also be that another productive avenue of research could be research focused on what kinds of coping strategies this group of workers employs in dealing with alienation.

The evidence concerning academics has implications relating to the research agendas they follow, the way in which their work is published, the way they work with partners,

be they other academic institutions, funding agencies or other academics, and the subtle ways in which self-censorship impacts on the products and processes of research. As was argued in Chapter Six, scholars work in a condition of alienation; and whether, consciously or not, it influences the way they work. As a result there is a contradiction between what scholars would like to do and what is possible given the overarching neoliberal agenda that influences scholarly activity. Of relevance here is the mention made in the literature review about the on-going debates surrounding the ideas of Hardt and Negri and Holloway and the reference made in Chapter Six about the developments in making research outcomes more freely available. These are part of an attempt to resolve the contradiction that has, to some extent, resulted in a healthy discussion on issues such as an “academic commons” and the development of critical pedagogy which “asks whether open higher education can be (re)claimed by users and communities within specific contexts and curricula, in order to engage with an uncertain world” (Hall and Winn 2010) and to what extent ICT can play a role in this process (Hall 2013). The evidence in this thesis feeds into this discussion but emphasises a number of relevant issues related to alienation. The first is that scholars need to be aware of the alienating conditions within which they undertake their activities and appreciate the extent to which it touches upon the outcomes and processes of their work. This could take the form of a question: does the thing I am doing contribute to or resist against my alienated experience? (Here one is tempted to paraphrase Bill Clinton’s reminder that he placed on his desk: It’s alienation, stupid!)

Secondly, in linking Marx’s thermodynamic paradigm used in *Capital*, (Wendling 2010: 90) to his theory of alienation, a question must be asked about whether it is possible to reclaim higher education in the way Hall (2013) suggests particularly when such ambition relies on the use of technology which both the product of and a contributor to the alienation. In answering this problem a potentially more fruitful

avenue of enquiry could be explored: to what extent can those confrontations with alienation in higher education (Bialakowsky *et al* 2014, Danowitz 2011, Preston and Aslett 2014) feed into a project directed at building an education system devoid of alienation altogether? Finally, this research adds to the field by indicating that existing research could be re-visited fruitfully and viewed through a prism informed by Marx's theory of alienation to provide deeper insights into how people experience ICT.

The implications of the setting concerned with SPAG relate to the way people learn to use ICT and to the possibilities of confronting alienation both in the way ICT training is organised and how research into this area should be conducted. PAR provided a framework within which it was possible to customise the learning process and create space for reflection which influenced the development of learning. However, this process was implemented within a context that foregrounded the causes of alienation relating ICT. As such the setting seems to support the notion that ICT training should be constructed so as to confront alienation. The evidence from the setting also underpins the view that the learning ICT that should, *inter alia*, be highly flexible in terms of topics (both technical and non-technical) covered; be deeply inclusive in the degree and nature of involvement of the participants in setting and achieving training objectives; appreciate that trainers need to continually re-assess their role in the learning process; recognise that issues related to alienation will impact on the process of learning; and that expressions of alienation will constantly come to the fore both with the trainers and the learners.

The evidence from the SPAG setting also suggests that researching problems linked to ICT end-users benefits significantly from adopting a PAR approach. PAR, working in tandem with Marx's theory of alienation could be employed in researching non-technical issues, such as codes of ethics or codes of conduct, associated with ICT. The experience of the SPAG sessions also has implications of a wider significance as it

indicates a way of working that could be applied to a range of different contexts. This does in part reference back to the discussions above concerning the activities of academics and ICT professionals, particularly those concerned with confronting alienation.

10.9 The unique contribution

As was articulated in the discussion covering Seeman's presentation of alienation, Blauner's research and Wendling's conceptual engagement with Marx and alienation this thesis sought to make a unique contribution to the field. It has done so in four ways. The thesis and the research that supports it re-assert the importance of Marx's theory of alienation over that proposed by Seeman and its variants by firmly establishing the need for researchers to embrace alienation as a total concept. Secondly, in doing so, it has also developed a critique of Blauner and provided a method of researching alienation that corrects the errors in his work; namely the thesis demonstrates that researching alienation is not researching job satisfaction. The third unique feature of this study is that it has not sought to replicate the conceptual studies such as that undertaken by Wendling nor has it followed a philosophical approach that seeks to locate Marx's theory of alienation in the development of the western philosophical tradition or which focuses on its connection to his later works,. Rather this study has engaged with researching alienation in specific circumstances so as to test the validity of Marx's approach. Finally, this research is unique in the way it has attempted to apply CR and, if only partially, PAR while being focused on three contrasting settings experiencing the use of IC. I am not aware of any other research that exhibits the same features.

Thus both the process used to undertake this research, including the use of different settings, and the findings obtained have resulted in a relatively unique contribution to the research concerned with the ways we experience ICT. The results of this research

challenge the widespread assumptions about end-user experience of ICT, at whatever skill level; offer new insights into the much mentioned but little understood alienated way we experience ICT; and underscore the significance of using a Marxist approach to alienation. As such it offers a unique contribution, both in its theoretical and methodological characteristics, to the current scholarship concerned with researching alienation and ICT.

This research has been concerned with showing the relevance of Marx's theory of alienation for studying how we interact with ICT whether that be by the direct use of the technology, how it is researched, or how it is created and used. In the process it has engaged with the categories outlined in Marx's presentation of alienation as well as issues such as mediation, the contradictory nature of both the technology and alienation itself, and what possible structures and ways of working could enable us to confront and challenge alienation.

Consequently, the evidence in this thesis has significant implications for answering the original question which was asking why there should be a huge contradiction between what the technology can deliver and what it actually does deliver, creating a situation where people see ICT as threads of barbed wire running through their lives. It also indicates that any investigation that seeks to explore the relationship and interaction between people and ICT would benefit immensely from taking as its starting point the contradictory nature of the technology and issues of control and power.

Having identified the problem, the task now is to solve it.

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Appendix A

Outline of the approach adopted for the focus group session with the ICT professionals.

As with all the question templates designed for this research, the questions guiding the focus group discussion were informed by Marx's theory of alienation and the components he identified as outlined in the literature review. Thus the discussion guide initially focused on:

- 1) Product
- 2) Process
- 3) Alienation from others
- 4) Alienation from oneself
- 5) An exploration of the participants' attitude towards work.

The attempt was also made to draw upon CR as a way of drawing out otherwise hidden aspects of the issues I wanted to cover. So, for example, a question was asked about the participants doing the lottery. This was seen a device to designed to indirectly explore attitudes to work and was inspired by Marx's comment about work being avoided like the plague given favourable conditions.

It became apparent during the discussion that while it was possible to obtain data on points 1,2,3 and 5, it was not possible, because of the public nature of the discussion, to really explore issues associated with point 4. As a result, I decided during the discussion not to develop this particular area. As would be expected in a data gathering exercise such as this, answers to questions would reveal specific data that would inform the construct of following questions.

The following is the list of questions asked at the focus group:

The first question is to ask what they do

Who decides what you do?

I ask who puts the pressure to do certain things

I ask how the tasks are to be completed.

I ask how much pitching for contracts affects their work

I refer back to the internal market and ask how it affects relationships between employees inside the company

I refer back to the internal competition that goes on inside the organisation

I ask how this works out in terms of day to day activity

I ask how this works its way through into day to day interaction between people

I refer back to the issue of working with other companies and ask what impact does this have

I ask how they feel about their jobs

I ask if this is a common feeling amongst employees

I ask about Facebook

I ask if this is a shared feeling

I ask if since they are the experts what would they do to make a difference

I ask what do they think needs to be done to take control of the technology

I ask if they do the lottery

I ask what they would do if they won

I ask about work on projects that have an ethical dimension

I ask how this work its way through activity

I thank them for their time and and participation and ask if they have any suggestions for future work with the research

Appendix B Interview schedule for ICT professionals

Interview schedule for ICT professionals.
Interview with:
What have been the main changes in your sector over the last five years?
Do you know if your organisation has an ethical framework or a corporate social responsibility programme? If so, how familiar are you with the policy?
What has been the impetus for introduction of ethical frameworks/ corporate social responsibility policies in your sector?
How was the EF/CSR policy developed in your organisation? Have you been involved in developing such policies in your organisation? If so, how?
To what extent have ethical frameworks/ corporate social responsibility policies been effective/influential in the sector?
What do you think the future is ethical frameworks/ corporate social responsibility policies in your industry?
What have been the main drivers for the development of ethical frameworks/ corporate social responsibility policies in your sector?
To what extent does the nature of the ICT sector impact on the development and implementation of ethical frameworks/ corporate social responsibility policies?
Do you consider ethical frameworks/ corporate social responsibility policies to be of any value in your industry?
Do you know if anyone in the industry has been a whistle blower? If so, do you know what happened to them?
How has the sector been affected by the economic crisis?

What has been the response of ICT enterprises to the crisis?
What has been the response of ICT professionals to the crisis?
If you lost your job would it be easy to find another one?
Specific issues in the development of computer ethics/societal aspects of ICT research
Do you consider your work to be a creative process?
How much of this work is the result of individual endeavour?
How much of it is commissioned internally or externally?
What influence does the commissioning body have on the work: You are told what to do? How you work? Where you work? With whom you work? .
Do you feel you have much control over the outcomes of your work? .
Have you ever been asked to work on a project you didn't agree with?
To what sort of pressures are ICT professionals subject?
Is your sector very competitive?
Is there competition within your company?
If so, what form does this competition take?
Have you ever experienced a competitive environment?
How have you felt about this? Does this competition affect your relationship with others in the industry? Or your work colleagues?
Are you monitored at work?
What form does this monitoring take?

Is your work subject to quality control checking?
How does this happen?
How do you feel about this process?
How do they affect you day-to-day activity?
Has the development of computer ethics/ corporate social responsibility policies influenced behaviours in your organisation?
If so how?
Do they affect your behaviour?
How do workers in your company progress their careers?
If you had the opportunity to start your career over again would you change anything?
If so, why?
If there were no limitations/restrictions on your work, what areas would you like to work?
What other type of activity would you like to undertake?
How familiar are you with the most recent development of ICT?
What sort of problems have you encountered using ICT?
What would you say is the most frustrating experience you have had using ICT?
How did these problems/experiences make you feel?
Are you allowed to use social media at work?
If not, why not?
Is there anything you would like to add?

Appendix C: Transcribed interview with an ICT professional.

Interview with: IA

Undertaken using Skype employing Skype recorder software.

Me:I

I: Hello Mike, this seems to work.

Me: Thanks a lot for agreeing to do the interview. Much appreciated really and following up some of the things we discussed in the group session. Just to recap on what I am doing since it has been a while, do you want to know what I am doing?

I: I recall what you are doing but I just wanted to make sure that my name or anybody else's name will not be used in the in the any publications.

Me: Well what I am required to show some form of identification of participants but I will do this in a way that will not identify specifically who that person is or where there specific location is.

I: OK that is fine.

Me: If someone insists that I have to identify both the company and/or the participant in the thesis, I will say forget it and I just won't submit it as a piece of work.

I: OK

Me: And can I record the interview?

I: Sure.

Me: Just t to recap on the research, I am seeing just how useful Marx's theory of alienation is in explaining how people to related to ICT. To see how robust his theory is in explaining people's experiences. I have a number of questions but if you want, at any point in the interview, talk about something else you think is important, please feel free to discuss those issues. The first part of the interview is concerned with the structure of the industry and where you see it is heading. The second part tries to focus on you and how you see yourself in all of this. Is that OK?

What have been the main changes in your sector over the last five years?

I work in the services part of the information communications technology industry. There are lots of people who develop hardware and software but that are not what the company I work for mainly does. It is more services and what we have seen is a trend that has been around for more than five years, but has been accelerating recently, is that whereas in the past every company had its own technologies, they are becoming standardised and commoditised so that customers can switch between suppliers much more easily and can mix and match. The effect that has on working in the industry is that the same thing happens with skills. So if your employer has some kind of niche technologies, you end up knowing about those and it is then relatively difficult for you to move to another competitor but similarly it is difficult for the employer to replace you. You can end up with a quite a bit of individual bargaining power. But the effect of the standardisation of the industry is to standardise the skills and the jobs. So we can see more clearly price competition within the industry in terms of what we do and the labour market within the industry as well. Sections of the workforce are being deskilled. So if you think of u... want to know what I am doing? any industry going through and industrialisation process, such as the motor industry when Fordism came in during the 20's, you ended up with some people becoming more skilled to actually organise the machinery and the

production line. This was a relatively small minority but for the majority working in routinized semi-skilled work. We see this happening now with the employer trying to measure how many of what you do and how long it is taking. So it is taking the view that rather than each job being relatively creative and different, there is heavy emphasis on repeatability and employing processes using templates and standardisation and those kinds of things. There is definitely deskilling going on and I don't think it is for everybody at the same time nor at the same speed.

Do you know if your organisation has an ethical framework or a corporate social responsibility programme?

It has yeah. It has a corporate social responsibility programme and it has been doing quite a lot on that during the last five years. There has been a significant increase on how much emphasis is placed on that. To some extent that has been driven by the bribery and corruption legislation that has come into force, so to avoid directors going to gaol they have had to train people up as to what you can and cannot do when bidding for work or dealing with customers and suppliers. So there has been that element to it and there has been, although I don't know if this would fit under the corporate social responsibility heading, stuff about security and data protection. These have had a higher profile as well.

If so, how familiar are you with the policy?

Reasonably. It is not so much a policy I think. There are a few documents knocking around. It more about particular themes they have pushed out through training programmes and things like that to try to get key messages across.

I ask if he every looks at the company's corporate social responsibility web pages.

Very occasionally

What has been the impetus for introduction of ethical frameworks/ corporate social responsibility policies in your sector?

I think it is an external driver that is making more real. The theme I think there have been kind of vague general statements about things for years but without any real substance or weight. One of the key drivers both in the UK and the US is the relatively new legislation about corruption and bribery. I think that has focused the minds of some of the senior managers here. There have been a few cases of high profile companies getting caught out with unethical practices with some eye watering fines and things like that and I think it has driven quite a bit of it.

I also think that in recent years there has been an increased attention to brand and not just is our sector. You know, if you see the way that Nike or Wal-Mart can have their brands wrecked by doing some dodgy things. I think that has made companies more generally sensitive to what is called the "red-face test." You now if the company appeared on the front page of a newspaper, would that look good?

How was the EF/CSR policy developed in your organisation?

No.

What have been the main drivers for the development of ethical frameworks/ corporate social responsibility policies in your sector?

I ask if ethical frameworks can be included in this discussion.

It depends what you mean by ethical frameworks. Bribery and corruption figures in this but not ethics in the sense of what are technologies used for generally. There is some stuff I have seen about customer and suppliers to consider such are these organisations we would want to be associated with. So I have not seen, but to be fair I might not have in my job anyway, any cases where they have seen a business opportunity and then said we are not going to do that because of the ethical implications. But the training programme they have rolled out there is the implication that that sort of scenario could arise.

Do you know if anyone in the industry has been a whistle blower?

No.

How has the sector been affected by the economic crisis?

It has been pretty horrific really because it has been a kind of mixture. For the outsourcing part of the industry that I am in, there is quite a lot of long-term contracts and they tend to be relatively secure unless the customer actually goes bust. However, a large amount of the revenue that comes on those come from extras. So you have a service contract with a particular company and they will decide how they will want something changing. And that an often be two or three times the spend of the original contract and I would say that the IT services work discretionary spend can very easily stop when there is uncertainty. So at the start of the recession there was a real hit with customers just not making purchasing decisions so they were deferring decisions until their own situation became clearer. So there was quite a sharp drop-off of orders and so forth. So we have a base of long-term contracts that meant that business as usual work need to be done. This gets topped-up fairly steadily and so that has been hit. But that cannot go on indefinitely and as companies' infrastructure gets older it becomes more and more flaky and difficult to support as well as expensive. So even though they don't want to it, companies have to come back to these purchasing decisions for many of them. But they are clearly expecting the price to have dropped sharply, looking at off-shoring, stripping out functionality, doing more no frills things rather than having a better level of service they would have wanted in better economic times. So there is a lot of downward price pressure and they are also fragmenting contracts. I am not this is mainly to do with the recession, I suspect not. Whereas it used to quite common for a major company or government departments to say we will use one large company for our IT needs, they are now chopping that up into little bits in order to get more completion between the suppliers and to drive down the price. I don't think the

sector is competitive in the sense that they are many more players in the sector but I feel the customers feel they have the whip hand really in terms of competition between the suppliers. The competition between existing suppliers is fiercer and it is more price focused rather than functionality.

What has been the response of ICT enterprises to the crisis?

A number of them have been making very large scale job cuts in the UK. Our company has been slightly less badly hit than most I would say so we had some quite big job losses in 2009. Since then it has been more a case of piece meal small numbers of job losses, not replacing people or driving people out through disciplinary or other measures. So it is a piece meal squeeze on the workforce rather than redundancy programmes but there are other companies, such as HP, announcing tens of thousands of redundancies. There seems to be never ending redundancy programmes and this has been a huge part of what they have been doing. I wouldn't know in detail how the other companies are responding internally, but in my company it has definitely accelerated and driven re-organisation internally and more push towards commoditisation and standardisation with the use of templates and all that kind of thing. All those measures concerned with changing the way we work are part of the response to those external pressures.

Comment added after interview: This is a reference to the proposed 29,000 job cut in HP. More info at: <http://news.techworld.com/personal-tech/3380315/hp-job-cuts-to-reach-29000-by-end-of-2014/> For another take on this trend see Google takeover of Motorola.

<http://online.wsj.com/article/SB10001424127887324128504578347311150486142.html>

What has been the response of ICT professionals to the crisis?

Our experience was that the attacks by the company were quite frontloaded so we had a big attack so us in 2009/10, we had a pay freeze even though the company was profitable, we had the closure of the final salary pension scheme to existing employees and mass redundancies. So we were hit very hard quite early on in the crisis and that got quite a strong response from employees if you bear in mind that the company is not mainly unionised. We had the first national strike in the industry in 2009/10 to fend off the worst of those attacks. I would say since then, the company has been a bit more piece meal on its attacks on us and as a result, employees reaction to that is hoping that it goes away. So that has been the latest response rather than any great activity. I would say we have seen a lot more industrial action in the sector than ever before so we have seen industrial action at bits of HP, Steria, CSE had a public protest. I would say that the downward pressure is leading to a willingness to take action by the workforce but generally that is still within the pockets where there is union organisation rather than another 1000,000 people becoming unionised. So it is not a kind of sharp upward curve in union organisation but just more a case of the anger finding its expression in those places where they are organised. Union membership has been increasing across most of the companies but there is a degree of fluctuation and you also see surges when there is some particular attack or campaign going on. And of course when there is job losses it goes back down when members leave the organisation but the density has been going up quite significantly.

If you lost your job would it be easy to find another one?

I don't know. I have got colleagues who have left or lost their jobs in recent years. Some have found other work quite quickly but some of them haven't. So I think it is uncertain.

Do you consider your work to be a creative process?

Sometimes. I think that would be a straight answer. I think it should be more than it is. So one of the things that people, one of my kinds of work is design activity and that is going through this process of standardisation and deskilling that we were talking about earlier. So that makes people quite unhappy when they see themselves no longer doing what they would see as genuine design work and perhaps just carrying out relatively repetitive work and applying the same design principles over and over again to slightly different situations in quite a repetitive way. So there is segmenting the work and it comes back to deskilling. There are a minority of people who get to do the more architectural levels of design, working out how to solve the problem. Beneath that there is an awful lot of detail that has to be done and to decide exactly have to be set-up and configured to make it work. This is not very exciting and by segmenting the work more so that some people overwhelmingly do the architectural stuff and other almost exclusively do the configuration low level stuff, clearly the people who get boxed into doing the low level stuff don't find that as creative nor as interesting.

How much of this work is the result of individual endeavour?

In term of what gets delivered to the customer it is pretty much all collective but the actual tasks that people do there will be a large individual component. But even there you would be working away on something but would need to talk to people to get information even if most of the time you would be working on your own. So if there is a project for the customer, it gets chopped up into smaller segments and then those pieces are allocated out to different people to work on. So there is a lot more bureaucratic overhead in terms of defining what those types of work packages are but then there is time pressure on individuals to complete certain tasks by certain dates because things depend on them. You are responsible for getting your bit done.

I ask if this process could be described as a networked production line.

Yes, you could if you liked. In a factory, early in the process you would have a number of lines running in parallel making different components for assembly in the vehicle as a whole that finally come together to make the product. Yes, I think there is a parallel with that. So it is not the case that only one thing is going on it is often the case that several people will be doing different things at the same time. There are dependencies within them and that fits the production line analogy. They are increasingly using things taken from manufacturing like lean and just in time so on to look at process. This is very widespread in the IT industry. A Google search on lean in the IT industry will throw up quite a lot of information on this issue.

So typically, if I am putting together a configuration for a particular device or part of a solution, I'll have to get information from a set of other people and some of them will have to do smaller pieces of work to give me that information. So there is almost a cascade of requests if you like from the customer that gets chopped up into smaller and smaller pieces.

(Comment added after interview during transcription: This is an interesting comment because it implies that whereas the IT industry had been seen as a cutting edge industry, with the advent of standardisation and deskilling, the industry is behind other sectors in terms of its work process engineering. Hence the need to look to more up-to-date production line techniques to improve performance. This does of course have a significant impact of how workers in the IT industry are organised and consequently how they feel about this form of organisation As with a number of issues raised in the course of these interviews, it is beyond the scope of this study to pursue such an investigation but it is one that should be addressed by further research. For more information see http://en.wikipedia.org/wiki/Lean_IT

And <http://www.lean-it-summit.com/>)

I ask that as it gets more and more fragmented, is it more difficult to get a sense of the whole.

Yes, so you could be working on something and not understand what it is being used for as an end solution for a company.

How much of it is commissioned internally or externally?

Yes, we are told what to do. We are given requirements and told what to do. One of the first things we do when we start a job is to produce a document called a terms of reference stating what it is you think they are asking you to do. You have to send that document to the customer and get their agreement. So getting clarification on what it is we have to do is the first thing we do on a project.

I ask if they tell you how you should do your job.

Not generally. They could define the outputs they want by saying they this document in a particular way or they might say that want it to be like another solution they already have or another customer has somewhere else. Generally the move is away from allowing the customers to dictate the solution. Previously, the customer used have more control over these issues but in order to drive the standardisation process there is a push away from customer control. If a customer wants it tailored to exactly what they want, that could cost ten times as much. If we can roll out what we do for everyone else in the same standard way, it is going to be cheaper.

(Comment added by me after interview during transcription: This is an aspect I have not really considered in both the preparation and implementation of the research. Indeed, without this interview, it could have a been a feature that would have gone unnoticed for a longer period. What is being described here is not just a confinement of the creative process as it is experienced by the ICT professionals, but an extension of that confinement beyond the work process into the very heart of the process concerned with identify needs in the first instance. What may be the most suitable method of resolving a particular problem fails to be implemented because the ICT companies seek to shunt customer expectations and requirements into an ever decreasing range of viable options in terms of cost. Further analysis here could

focus on the impact that this approach has on the way in which those seeking IT solutions, adapt and rework their requests because of the demands of the provider. Who is really in control here? There are further ramifications arising from this process to do with the end users who will eventually be expected to utilise the IT system when installed. Here then we see a whole series of relationships that exist between the ICT professional and the end user, as mediated through the provision of a given IT system, being determined almost solely by the imperatives of the provider of that system. It would seem that the economic crisis has in fact strengthened the position of the IT providers, both in terms of controlling the workforce and their relationship with their customers, even if the IT industry has experienced recent difficult circumstances.)

What influence does the commissioning body have on the work:

You are told what to do!

Where you work?

It varies. I am contractually based on one site so I work there. If I wanted to work from home on a particular day. With my manager, I don't think that would be a problem. On some jobs the account demands that some people work at particular locations and so perhaps that will affect where people work. But again, there is quite a management push back on that at the moment because of cost in terms of time and money. Management want greater control over how and where people work to make it as cheap as possible and they see accounts that demand we are present on site as increasingly costly to deliver. This has led to an increasing control over us at work. One of the things going on at the moment is, internally, they are moving away from a process where departments invoiced for the actual time it took to do the work. So if it took two weeks to do the work, the account may have a contract with the external customer based on a set of reasonable variable costs. But now even internally they want to move to fixed price contracts where the department would be paid the same whether it takes a day or a fortnight. So that is driving the departmental managers to say they want to control their work force to an even greater degree. They want increased supervision; they want more stats on comparative times taken by people who do similar work. Managers have started asking why that job is taking twice as long as a similar one. This is more and more widespread now.

With whom you work?

No choice about who you work with.

Do you feel you have much control over the outcomes of your work?

The company would know who the customer was. But if it was a shared infrastructure job, our company might not even know who was going to use the facility. I have no control over what can be stored in say a cloud provision only in terms of what types of data it might be.

Have you ever been asked to work on a project you didn't agree with?

Yes, there are a couple of examples of that. I was working on a particular type of technology and one of the potential clients was a Greek porn magnet and that wasn't my vision of how the technology could be used and more recently, there was defence job it looked like I was going to be working on which happen to coincide with the start of the Iraq war, which I didn't agree with. As it turned out I didn't end up working on it anyway, ironically because the war broke out and they had to shelve the project.

What happened to the Greek porn magnet?

They didn't place the contract anyway.

Do you know of anybody either in the industry or your company who said they didn't want to work on a particular job and there were consequences following on from that decision?

I can't think of anybody, no. I am just thinking about it in a different way. It is common for people not to work on particular contracts because more generally they see particular contracts or customers as a catastrophe rather than for ethical reasons. So it is quite common for people to avoid working on particular accounts. People don't want to be associated with a catastrophe and in the services part of the industry it is quite common for contracts to change from one supplier to another and if you are working on an account when the contract ends then you can be Taped out to another employer. So then it is quite common for people to avoid being on contracts when they are coming to an end which makes resourcing them interesting towards the end of the contract.

To what sort of pressures are ICT professionals subject?

In the industry as a whole you have individual performance related pay being the norm as well as bonuses. Quite often these are not dealt with in an objective way. So there has been a big increase in presenteeism, an increase in people taking unpaid overtime is widespread as is stress, which is one the biggest causes of sickness absences. So there are a lot of pressures associated with people feeling they are vulnerable in terms of getting their next project or next piece of work.

(Comment added by after interview during transcription: presenteeism This is a reference to an activity where people come to work even if they are ill. For a further discussion on this see: http://www.medibank.com.au/Client/Documents/Pdfs/sick_at_work.pdf There has also been research investigating the adverse consequences between stress and creativity. [Creativity and Job Stress in the Korean ICT Industry: TMX and CHS as Antecedents](#) This is a further area of research that could be developed using the Marxist theory of alienation both as a category and methodological guide.)

Is your sector very competitive?

Well I also see this as being driven by the technology changes and the maturing of the industry although it has been accelerated by the crisis. Just as you think of the car industry it went from people handcrafting individual cars to mass production and that is the process we are going through now.

So the development of the technology itself is creating problems for those who create the technology. I think this is true with the development of technology. Although it has the potential to be a positive thing because it is used within a capitalist framework, an exploitive framework, it often ends up having negative impacts on lots of people because of the way companies respond and use the technology. I don't see anything inherently negative about those technologies.

(Comment added by me after interview during transcription This comment about creating the technology that creates problems for the creators has quite profound consequences since it reveals that in effect information communications technology professionals are creating products that will eventually undermine the professional nature of the IT industry. The commodities being created come back to alienate the creators from the very creative activity that gives them a positive sense of themselves. At the same time, the trends inherent within the development of the industry, accelerated by the recent economic crisis, offer no possibility to arrest let alone reverse this process. Information communications technology professionals are now locked into a seemingly unstoppable process of ever increasing alienation for the overwhelming number of those employed in the industry. This process is one that is identified by the theory of alienation as described by Marx.

Is there competition within your company?

Yes, definitely. I have mentioned about appraisals and bonuses and such like. But even for things like work because of the way work is chopped up into these work packets and so to make sure your ability to get work and decent work, is often taken by the people who decide about the allocation of that work. So these would be line managers or sometimes managers with in the account or resource managers and so this is something that you don't control on your own. You depend on the patronage of other people to get work and to get good work.

(Comment added by me after interview during transcription: This a description of an environment in which there is increasing power to control the work of information communications technology professionals being given over to managers.

Have you ever experienced a competitive environment?

Yes.

How have you felt about this?

I think it awful. There is no transparency about how is allocated. It puts a lot of pressure on people and it is often unfair in terms of the outcomes. In those parts of the company where it works most, in project management and design, it ends up with people with child care responsibilities or any other care responsibilities find it hard to work excessive hours, much harder to travel long distances, and can therefore be perceived as less flexible by the people who have the power of patronage. These people can find it hard to get work and can be managed out of the company if they are seen as not being productive even though they are perfectly capable of doing the job if they were allocated appropriate work. So that favours that you might have done for the company by going beyond the contracted hours

become almost expected and you are penalised if you don't do this.

How you see the other people in the industry when you have competition between companies?

Personally, I just see them as trying to do a job the same as me. But it can be difficult when you are trying to argue against jobs being moved to people who are getting paid less or treated worse, whatever it might be.

I ask what happens in this competitive environment.

I have seen people taking problems up the management chain and complaining about not getting what they need for other people, say in a project. That can be fairly unpleasant. I saw one example few weeks ago there was a colleague who was quite open about the fact that he was not doing something the project wanted him to do because he didn't like the guy in charge and didn't want him to succeed.

I was quite surprised at that since I had not seen that before.

How does this affect your relationship with your work colleagues?

I have not experienced real hostility around that to be honest. But I have seen that in other teams where it is going on and people get resentful of who gets to do what. And where it becomes really quite divisive. There was one department where work was allocated in this way and it was also a department where a number of staff including managers, were either related or were connected socially. And there was a perception that this was, rightly or wrongly, to who got what work.

(Comment added by me after interview during transcription: If we start from the premise that it is the overarching sentiment within an organisation that provides the environment within which decisions of an ethical nature can be made, the existence of a competitive culture where the other is seen as a threat has the tendency to isolate individuals. This makes it more difficult, although not impossible with the correct approach, to create a mutually supportive environment where people feel helped to make ethical decisions.

Are you monitored at work?

Yes, so that is definitely on the increase.

What form does this monitoring take?

You have to do a time sheet each week to show how many hours you have spend on the work you are doing. We are required to fill in resource updates to say what time you are planning over the next few weeks, we have to fill in updated on the online system for allocating the work packages every week. The company reserves the right to monitor email card access into the building is monitored; they have just introduced a system where you have to swipe an id card to use a photocopier or printer. You have to log into your phone to be able to make phone calls. So yes, we are pretty thoroughly monitored I would say.

I ask who creates the software and hardware to do this monitoring.

It comes from various sources. The phone and id pass stuff is external, the time sheeting system is external although run internally, the more job focused stuff is internally produced.

Is your work subject to quality control checking?

Yes.

How does this happen?

Depending on the size of the job. But even for a small job you are required to get a number of colleagues to peer review your work before it gets used. For bigger jobs there is a more formal process to go through which does the peer review first and there is what is called a board that would include people that be project managers and people more senior to that, people from the account to approve work, all this people would say if it is good to go before it is implemented.

I ask about the small, informal peer review process.

It is mainly being driven through on online system. So you would talk to someone to see if they are available to do the review and then you would upload the documents onto a website and enter their names and then it would go as a job for them to do.

How do you feel about this process?

It is helpful in the sense that you can capture mistakes before they impact on things. But it is quite visible and so people are nervous about being caught out. There is pressure not to be too critical of each other because you could get the same back. For the informal stuff because most work is going to go through to the formal process, most people would rather catch stuff early on rather than be told it is not good enough when they get to the more formal approval.

How do they affect you day-to-day activity?

(Comment: question not asked because of previous answers.)

How do workers in your company progress their careers?

It depends on what sort of job you do. Jobs are advertised online but there is a very significant minority of jobs, particularly where the work is being chopped up, where over time you would be given more demanding tasks to do by your management so it is quite common to find people who are on one grade being asked to work that is one or two grades above their level. But then people find it very difficult to get promoted to the level of the work they are doing and that is a massive equal pay issue. So there is a lot of unhappiness about that. There are promotion processes where you go forward to a panel to be assessed if you want to move up to the next level. But you have to get to the panel first and when the company wants to stop spending more money, they just stop holding them. Recently it has become more difficult to develop a career. I said earlier about people not being replaced so there are not many internal vacancies even and the ability to go through panels is more limited now than it has been.

I think the lack of internal vacancies is to do with the economic crisis because the work is not available and there are trying to reduce the head count all the time and the problem about promotion is just cost cutting by the company in trying to get people to do more work than they are being paid for.

If you had the opportunity to start your career over again would you change anything?

No particularly

If there were no limitations/restrictions on your work, what areas would you like to work?

I would like to work, I am very interested in how people use IT for organising and campaigning. And I would love to spend some time, because there are lots of free tools, that would be great for this kind of thing but nobody seems to have the work to pull them together into a coherent set and explain how to use them. So you have got major trade unions down to local campaign groups using random tools that they know about but in ineffective ways. So that would be a fantastic thing to be able to spend some time on.

What other type of activity would you like to undertake?

(Question not asked because of previous answer.)

How familiar are you with the most recent development of ICT?

Reasonably.

What sort of problems have you encountered using ICT?

Unreliability and with technology moving on the documentation is often pretty poor or non-existent or hard to find. So trying to work out what you can or can't do with things. I think particular for the stuff we use within the industry if you like. For consumer stuff, obviously they invest more in the documentation. But if you are talking about some expensive bit of kit that might only sell a few thousand around the world, then the documentation tends to be much less accessible or much worse organised, if it exists at all. It is quite common to find things that are missing or are quite contradictory or incomprehensible.

What would you say is the most frustrating experience you have had using ICT?

The one that frustrates me most is the 30-45 minutes it takes to boot up my laptop every morning before it is useable. Which is just ridiculous.

How did these problems/experiences make you feel?

Just frustrated really. I mean particular working in the industry the idea that we have got such crap that impacts on your ability to anything done. It is just really frustrating.

Are you allowed to use social media at work?

In a limited way. The company has its own version of Facebook which is pretty grim, you are allowed to use it but from memory I think you can Facebook in breaks but I think they have turned it off during working hours. I wouldn't use it at work anyway.

Is there anything you would like to add?

No.

Me: I would like to say thanks for all your help here. I think we have covered a number of interesting points. When I have written the section on ICT professionals I will send it to you and the others for you to have a look at. So we can add things later if you feel this is necessary. Ok?

I: OK.

Me Thanks and see ya

I: Bye.

Appendix D Interview schedule for the scholars

Q1 What has been the impetus for research concerning computer ethics and societal issues of ICT?

Q2 How has this research developed?

Q3 To what extent has this research activity been influential in the ICT/computer sector?

Q4 What do they think is the future for computer ethics/societal aspects of ICT research given the developments in corporate social responsibility?

Q5 To what extent has technical development driven the debates on ethics / societal aspects of ICT research and ICT?

Q6 To what extent does the nature of the ICT sector impact of the development and implementation of computer ethics/ societal aspects of ICT research?

Q7 What are the primary arenas for promoting computing ethics/ societal aspects of ICT research?

Q8 Do you consider the development of ethical frameworks/research into the ethical/societal aspects of ICT to be a creative process?

Q9 How much of this work is the result of individual endeavour

Q10 How much of it is commissioned?

Q11 If commissioned what influence does the commissioning body have on the work?

Q12 How much control do the creators of ethical frameworks/ or research into the societal aspects of ICT researchers have over how they are used?

Q13 How do you feel about that?

Q14 To what sort of pressures are ICT ethicists and /or researchers into the societal aspects of ICT subject?

Q15 Is the development of ethical frameworks /societal aspects of ICT research a competitive process?

Q16 Have you ever experienced a competitive environment?

Q17 How have you felt about this?

Q18 What sort of institutional pressures influence your work?

Q19 What form do they take?

Q20 Have you had your work peer reviewed?

Q21 How do you feel about the peer review process?

Q22 How do they affect your day-to-day activity?

Q23 Has the development of computer ethics / societal aspects of ICT research influenced behaviours in the sector?

Q24 If so how?

Q25 If you had the opportunity to through the same activity over again would you change anything?

Q26 If so, why?

Q27 Do you think there are other non-technical areas of research, concerned with ICT that are more important than research into ethics/ societal aspects of ICT?

Q28 If so, would you wish to pursue these if the opportunity arose?

Q29 If there were no limitations/restrictions on your work, what areas would you like to research?

Q30 What if I turned up with a suitcase full of money and said here you go, it is yours, no strings attached, **what** other type of activity would you like to undertake?

Q31 What sort of problems have you encountered using ICT?

Q32 What would you say is the most frustrating experience you have had using ICT?

Appendix E Transcribed interview with Scholar

Q1 What has been the impetus for research concerning computing ethics/societal aspects of ICT?

Well obviously any new technology, at that time computer technology became something that everyone was aware of and that it was not a gimmick and that it had enduring power and that it would be used not just by the margin of society like highly skilled scientists but it would become a tool used generally like in any other case. It was obvious that there would be ethical problems from using the new technologies which is the case whenever there is a revolution involving technology.

Q2 How has this research developed?

Worldwide, locally or what? (I say any comments you want to make here would be ok for the research). I think there were several layers because, as you are probably very well that, computer technology was very inspiring and robotics to fantasy such as science fiction. So they started creating scenarios where you were having ethical problems. It was Isaac Asimov who basically treated it as a serious issue and created the first ethics for robots as far as I know. Then it started simultaneously in several places worldwide where scholars from my point of view, mainly philosophers on the one hand and computer scientists on the other recognised that this is a problem that will grow and will become a really important one. I think it was that the leaders in computer technology in Europe, such as Germany, Austria, Great Britain and the United States then probably Australia, but I know nothing about that area. That was one the one hand. But on the other hand you had countries that did not have much access to the technology but who knew about the technology and by the way, don't forget the Soviet Union too. So here you mostly had theoreticians, mathematicians who were dealing with theoretical research and physicists and philosophers who were just intrigued by this new occurrence and who looking at it from the point of view of those standing on the by lines but they are seeing the rise of a new phenomenon. I think these things were not happening nor coming from one centre but from several angles and several places. I think it started in the 1970's seriously but if you were digging really deeper down we don't agree when it started because it is linked to when computer technology began. How do we put the lines there? The same thing for information communications technology in its most modern sense and other computer applications. I think if you really want me to put a name and a place maybe Norbert Wiener would be, from my point of view, the most prominent name to use here. Maybe Turing was, yeah the two of them probably. But this depends on who you ask. You will get different answers. But for me this would be the two people I would start from. (I ask a question about how broad the research is.) Very broad and I think it is growing in both depth and breadth. It all depends, because see when we are talking about ethics I think they are several different approaches to ethics and to what ethics actually is. The way I see it there is definitely between the American, and maybe the British approach that comes out of an analytical approach which looks at ethics from a utilitarian point of view maybe a little bit Kant maybe a little bit and then you have continental Europe. And then you have countries where religious ethics is much more powerful than it is in the Anglo-American region. Here the Middle Eastern countries who look at ethical issues related to computer technology. So their approach to ethics is very different. You have a very different approach to ethics in China. And now they are all connecting a particular problem with information communications technology. I don't see it as one coherent movement. I see it now as a widespread surge for answers and a growing awareness of the multiplicity of problems that exist. We are just at the beginning of the

whole thing. I am a philosopher and my roots are in the history of philosophy so when I look at time you 200 years ago is just like the day before yesterday. I don't know how you look at what is recent and what is not recent but for me the things that happened in the 1970's and the 1980's is for me like today.

Q3 To what extent have ethical frameworks/ societal aspects of ICT research been effective/influential in the sector?

I don't know because I look at information communications technology from without. I am not an insider when it comes to information communications technology. I know there are a lot of problems, a lot of complaints at least on the ground level that lots of people just don't pay attention to ethical issues. I mean people who are actively involved with information communications technology both researchers and users. But I am not an expert in terms of knowing what is going on when these people talk to one another. Can you give me an example of what you are looking for because I cannot really see what you are asking here? Do you ask about the detail? Do you ask about the some broader aspects? Give me something specific. (Here I refer back to her comments about users and producers.) I think it impacts much less on users than producers because producers, or at least a large proportion of them are members of professional associations and as far as I know in many countries, especially countries that are instrumental in the development of information communications technology there are these professional codes of ethics. I don't know how strictly they are enforced and followed but at least there are these rules. I don't think that the general audience so to say is paying too much attention to this problem and I think for what I see in the United States that the young generation is pretty much totally oblivious to it. On the other hand, the way I see it is the wave of information communications technology ethics was a response to the emerging technology and an emerging awareness that there would be new ethical problems. But right now, what I think is happening is that you are having these newer converging technologies such as nano technology and off springs of them. You have completely new fields like telemedicine where information communications technology plays a huge role. I think that when these new technologies are maturing, they are maturing with the already existing awareness that ethical issues need to be very closely monitored and considered and answers need to be found to them and stuff like that. I think that we are right now on the verge of a very important qualitative change in the whole area of the role of ethics and information communications technology from the point of view of the creators and professional users of it. But that is my personal view as a scholar.

Q4 What do you think the future is for computer ethics/ societal aspects of ICT research given the developments in corporate social responsibility?

A little bit, not much but a tiny bit. You know this is again, a problem that we are right now starting to witness as it develops in the sense that I think this problem is connected to a wider and deeper issue of social changes that are occurring right now namely the growing power of global corporations in so many areas in a pretty much monopolistic position. So the issue of corporate responsibility itself will from my point of view become a huge ethical issue very soon. This is because to who will these mega corporations will consider themselves to be responsible. The so called public will have so little power to coerce mega corporations to act one way or the other. So the only thing we could expect for the very near future will be that these mega corporations will actually voluntarily restrict their actions. Now the question will be, will these restrictions be ethical restrictions. If they chose to play ethically that would be great. They have incredible power to do so. If they decide to act responsibly, if they decide that ethics is

what they should be guided by then we will have a huge factor of corporate responsibility impacting on the development of information communications technology and all emerging and converging technologies. If they do not feel responsible towards other people or the environment, this would be, from my point of view and incredible problem because who or what could stop them from doing whatever they would want to do. So again, I am not answering the questions the way you need me to.

Q5 To what extent has technical development driven the debates on ethics / societal aspects of ICT research and ICT?

Q6 To what extent does the nature of the ICT sector impact of the development and implementation of computer ethics/ societal aspects of ICT research?

Again it depends because right now, you see, the whole social landscape changed very much since the first computers were created under the aegis of the military or government or private corporations that were working very closely with either of these two. But right now what you have is, from my point of view, the information communications technologies have developed to the point that you have quite a large number of individuals who are incredible rich and who got rich because they were experts in the information communications technology field. So right now you can have a situation where an individual is capable of financing a very sophisticated R&D programme that would be independent from influences from any outside influences. And that for me creates a different situation in terms of what kind of ethics would this individual follow and what kind of research and development would this person go into. To me this is one of the most fascinating things that one can observe right now and emerging in the next few decades. I don't know what would happen. Would these individuals start congregating and pulling together the researches to make them even bigger or whether we would start to have a new type of completion here. I think that this is mind bogglingly interesting but I don't know any kind of answers to these problems. (I refer to the many hands problem) I think that this will eventually force a very deep change in our basic world view in terms of how science or in general how knowledge operates. You know we are still under the spell of disciplinarian knowledge and centralised knowledge you know where you have one prevailing truth and this works in knowledge comes from the centre or is given down to the masses or something like that. But I think we have to be ready now, I am not so very much a proponent of this concept of isolated cells floating in some kind of, you know whatever, and being these isolated islands. I think that the model of the network where things are actually interconnected are connected. There is one net of actions, one net of knowledge, one net of decision making and whatever. The problem is that even with all these connections you certain models that are close to one another and certain models that are far away from one another so that even though they are connected or are on the same plane there still might be this kind of inequality related to how they view each other. So that may skew the work they do so for scholars who do the things like I do who would like to see the big picture and draw synthesis, I am not an analytical scholar, this is one of those things that are definitely a challenge. I think people are me who want to see the forest and not being able to really see the trees but there will be some many people I think who just stick to the trees that they can see in their neighbourhood and cannot see any kind of incentive to go and explore the whole forest.

Q7 What are the primary arenas for promoting computing ethics/ societal aspects of ICT research?

Oh my goodness it would to be successful you know we as human kind we are travelling all the time with ethics as such to try and make people ethical. So with information communications technology ethics almost two decades ago I put on the thesis that information communications technology ethics will be ethics of the new generation, in other words, it will not make a distinction between traditional ethics and information communications technology ethics. So for me the problem is the way it is difficult to teach ethics, it will also be difficult to teach information communications technology ethics. And so far you know probably the most successful way of teaching ethics is parents teach children ethics. This is what can possibly stick to children and then their behaviour as adults. But when we have a situation where you have parents all over the world being aware of problems they need to teach their children in relation to information communications technology. So I am kind of a little bit pessimistic here. But if you want to be successful it should start in the family, but remember what I did at the start of our conversation. I made a distinction between information communications technology ethics for scholars, the creators and the professional users, and then the ethics for the ordinary users. And now of course you have the lines being blurred but scholars start as children so they already have an awareness of ethical issues in information communications technology before they become information communications technology scholar and creators themselves they should be aware of more ethical issues as professionals. (I ask where do people go with their research at the moment) I don't know. Do you mean what journal or what area of ethics? That to me is the million dollar question because of what I just said that the model of scholarly activity that was centralised doesn't work anymore. So now there is a multitude of venues, a multitude of centres, people can only read or listen to a limited amount so they eventually select, sometimes pretty randomly, where they would obtain knowledge from and where they will also try to publish in a very broad sense. I think right now it is a huge mess. There are so many of these initiatives and centres and teams and approaches to reach out. Whatever will come out of it later I have no clue.

Specific issues in the development of computer ethics/societal aspects of ICT research

Q8 Do you consider the development of ethical frameworks/research into the ethical/societal aspects of ICT to be a creative process?

I consider it to be creative but I don't consider it significant. I think it is creative because I am an outsider looking at things from different angles than the recognised scholar do and in that sense I think I bring some new points to the whole issue. It is not significant because I do not have influence by have an impact.

Q9 How much of this work is the result of collective or individual endeavour?

I have very little collaborative work because what I do is writing papers on that matter. So far I was doing it mostly alone . I actually start being collaborative now so maybe in the future I will have a much bigger portfolio of joint initiatives and papers and stuff. (I ask why she has become more collaborative.) It is mainly for practical reasons. It is faster to write in a team than if you have to do it all alone. And also maybe because I know more people who are doing this work. And maybe because these people are ready and willing to work with me. So they welcome the collaboration. Philosophers are usually loners right. You are a philosopher most of the time. You read, write and have lectures. It is not like you are working on creating a certain object physically. You do not have that many philosophers who produce works collaboratively. I think there is a certain self selection to this discipline.

10 How much of it is commissioned?

I usually write as an answer to a call for papers or someone saying would you contribute to the publication of something like that. I am employed by the state university and a part of what is expected of us, what we have to report that we have published and that we did what they call creative work. I don't get paid in money for my publications because they don't pay for books. So my contribution to collected works does not get paid. I am from Poland and when I lived in Poland there you were paid for being published even if it was just a chapter in a book and an article in a journal. But now no, I don't get published. Perhaps if I were famous but there is no Noble in philosophy. When you look at it as part of my job so I do get my salary and part of it is because I fulfil this duty of publishing.

Q11 If commissioned what influence does the commissioning body have on the work?

Someone asks me if I could write something on this subject then I consider it and if it is a subject to be challenging to me, to be interesting to me and I think that I can meet the deadline then I would say yes. If there is something I would consider to be not interesting or challenging at all or if were something that I have no knowledge of then I would say no. (I ask about the changing the nature of the argument.) I don't think I have ever had the need to do that.

Q12 How much control do the creators of ethical frameworks/ or research into the societal aspects of ICT researchers have over how they are used?

Well I don't think I have any control over them. Often I am responding to requests and I am not trying to exercise any control. I am on some editorial boards but I am not a person who makes any kind of decisions about what and how things should be published. (I ask about how much control she has over work once it is published.) Well what could happen? Sometimes people will send me a letter saying that my article will be published in another book or whatever. So I possibly could say no right. But I didn't see any reason to do that in the past. Sometimes people say we will translate it into another language and again, I don't see any reason to say no to that. I don't think I have experienced any kind of misuse of what I publish but to be honest I don't really pay attention to what happens to my work. I have done the work and I am moving on because I never have enough time to do the things I need to do. So, the work is out of my chest and gone.

Q13 To what sort of pressures are ICT ethicists and /or researchers into the societal aspects of ICT subject?

I don't experience any pressures that I would know of. You need to be more specific because I maybe have not thought of them or what.

Q14 Is the development of ethical frameworks /societal aspects of ICT research a competitive process?

Probably not yet. I think it is still new enough to aura of collegiality to it. But I think it will become very competitive later. The problem is, the way I see it, is that you really have the first generation of people, if we forget about Turing and Weiner, I think that what is happening is that you still have all those who started it no matter what country you would think of. But when you come to the problem of legacy you might start seeing competition. But then on the other hand that it time the whole thing will be so vast that if this model of network that I have in my mind will actually really take place this will

probably again, too elastic, there will be too much shifting in many directions that the real competition. The competition is, the way that I see it, is when you have a huge structure, you have a clear prize, you have a place on the top, and you fight for power and something like that. But in this area you will probably not have it unless you have an emergence of ethics that would be of a religious type that would have some kind of huge organisation behind it to which people would be very highly devoted to it emotionally and would be ready to sacrifice for it or whatever, then you might start having that kind of competition. But I don't think that will happen. I don't think people will consider it important enough. (I ask about competition within the research field itself.) I think that what can happen is that you might start to have clear competition between approaches to information communications technology ethics and here I would see the competition between you know the Anglo-American and possibly part of the continental Europe and Australia on the one hand and the Islamic countries and the China or China and India together or something like that. So it would be along the cultural traditional lines.

Q15 If so, what form does this competition take?

See the answer above.

Q16 Have you ever experienced a competitive environment?

I think I am outside of the competition. I am not significant enough to be seen as a competitor to anyone and I do not have ambitions to compete with anyone and so I am out of the game.

Q17 How have you felt about this?

Q18 What sort of institutional pressures influence your work?

I have no time. I have a very heavy teaching load and information communications technology I one of my areas of interest. So the work and research I am doing is not devoted exclusively to ethical problems in information communications technology. Sometimes the pressure arises from unfinished projects. So that is my main problem. That's life, that is how it is. As I said, time is my problem. I usually feel bad because someone has his or her own deadline and I am messing up their deadline because I am not delivering on time and stuff like that. My university does expect me to do this work to a certain degree, because you know how familiar you are with the system in the United States and how similar it is the UK but here we have this multi-tiered system of universities and the one that I work has any prestigious significance. I work at a teaching university and so our focus has to be on teaching with some research done. So from the point of view of administration you should do some research but not as extensive as say at Harvard or Yale or somewhere else and the point is that I have many more opportunities to do the research than I have the time for it. So I cannot complain about the lack of opportunities. I am complaining about the lack of time to do all that I would like to do or that comes my way. Even if I am intrigued or attracted to a topic I have to say no because I do not have time for it.

Q19 What form do they take?

See comments in the above answer.

Q20 Have you had your work peer reviewed?

Yes.

Q21 How do you feel about the peer review process?

It depends on what you are looking for. Are you asking me personally? Well personally, it doesn't matter to me one way or the other. As a system I would have questions which are ethical or otherwise and so these are two separate areas for me. I cannot say that I have been treated badly or that I was persecuted by someone who was grinding an axe against me. Again it is probably because I am not significant enough. I am not bringing in some world shattering ideas that someone would think is so outrageous that they have to go one the warpath against me.

Q22 How do they affect you day-to-day activity? Not asked

Q23 Has the development of computer ethics / societal aspects of ICT research influenced behaviours in the sector? Not asked

Q24 If so how? Not asked

Q25 If you had the opportunity to through the same activity over again would you change anything?

I don't know how to answer questions like that because it is difficult. The decisions I was making were one step at the time decisions and basically I accommodated to the circumstances so I do not imagine myself in a situation where there is this ideal world and what would I do in the ideal world because I never lived in an ideal world. I am pretty content with what my life eventually became and I believe that considering my life circumstances I think I made the right decision at each time in my life in the given circumstances. But I never had this absolute total freedom where the world is my bowl of cherries where I can do whatever I want to. So I don't know how people feel when they are in a situation like that.

Q26 If so, why? Not asked

Q30 What if I turned up with a suitcase full of money and said here you go, it is yours, no strings attached, what other type of activity would you like to undertake?

How much cash? Secure my total retirement? What would I do? Can I share the money with someone? Well I would create a condition for myself in which I would feel secure physically and psychologically and I probably would try to gather around me a team of people with who I could work on exploring the problem of what actually would be the role of knowledge in the future knowledge in general in society as a whole and what of that would be an issue that should be closely monitored from an ethical point of view because it could be harmful to society out to parts of society. This would probably be my ideal scenario. If I wanted to research I couldn't teach at the same time so I would stop working at the university. (I ask what kind of other activity you would like to undertake.) I will not tell you this it is too personal. I could not have a large suitcase of money and not try to do something to lessen the suffering of at least some portion of humanity. But then I would have the problem of how to do this best. And so this would be a terrible terrible situation for me because then I would see myself as having this money but I don't have enough money to help everybody. So how to I help and whom do I help? It would make me miserable.

Q31 What sort of problems have you encountered using ICT?

Ohhhh! First of all I am not an information communications technology person. I am a social theoretician of information communications technology. I am not a techie so my problems are very, very fundamental when it comes to me as a user. And I am very grateful to be at the university where I can cry "help" the moment I have a problem. So that is where my problems get solved. When it comes to information communications technology as a phenomenon that affects our lives I think the biggest problem is and will be the invisibility of the impact of information communications technology has on our lives and people are losing their awareness of the degree to which information communications technology is running their lives and to what degree we have succumbed to the world that information communications technology is creating for us. This is one of my issues when I try to think of it in terms of ethics. This is one of these things you know that there are so many of these problems that ourselves as humans are not aware enough of yet to really know what kind of creatures we are and we are now changing the world at such a fast pace with outcomes that we really don't know what they are. We really don't know what we are doing here. That is my really huge problem and my problem with the creators of information communications technology is that the way I see them that they do things because they can do them. They have the approach of mountain climbers in that they climb a mountain just because it is there. Why do you do these things and they say if it is doable let's do it. And that is a huge, huge issue that I see.

Q32 What would you say is the most frustrating experience you have had using ICT?

The smallest of things I cannot see. I don't have flexible enough fingers. This is frustrating. It is annoying.

Appendix F Transcribed interview with Mary from SPAG

The following is a transcription of one of the research conversations undertaken with one of the participants from Age and ICT setting. The word conversation is used here deliberately since it was not considered appropriate to adopt either a formal or semi-structured interview with these participants since a number of issues had been covered in the preview and review sessions and the conversations sought to develop a number of the issues that had arisen in those sessions. The approach adopted for the conversation drew upon Marx's theory of alienation particularly as it relates to control and alienation from one's self; a key aspect covered was a reflection on the value of the hands-on session. Although the structure of the conversation was very informal, even stopping for a cup of tea half way through, an attempt to employ a CR approach in that although it does not sequentially move through the issues, they are revisited at numerous points thus adding to the rich nature of the data.

Mike So all I'm going to do today is talk about you and ICT and, you know, whatever you like

Mary: Yes.

Mike: And whatever you say is ok. So but for the record for the record, tell me about yourself first of all. Say anything you like about...

Mary: I'm Mary Phillips, divorced, 74 years old and a member of the Southwark Pensioners Action Group and I live in East Dulwich, down the bottom of Dog Kennel Hill

Mike: And you can talk to me. You don't have to talk to the machine.

Mary: Alright. Ok.

Mike: Now let's just do a test on that and see if that's ok.

Mike: Right, so there I've got a little something about yourself. Now tell me what you think about ICT – information technology – computing, information technology, whatever.

Mary: I mean, sometimes I feel like throwing the computer out the window. It's, er, when you need to try and find out how to do something or make something work or you can't do whatever you want and you ask a question on the internet and it's never, they're not set up so they can understand your question, so it just comes up with a thing saying it can't, um, er, that what you've said doesn't compute really – they can't find that anywhere.

Mike: When you ask a question who do you ask the question?

Mary: Well, it's either Microsoft or Virgin or, yes...

Mike: So?

Mary: ...or Internet Explorer. Yes.

Mike: Oh, right, you're asking how can I do...?

Mary: Yes.

Mike: And what happens?

Mary: Nine times out of ten you don't get any proper answer.

Mike: So how do you feel then?

Mary: Angry.

Mike: And?

Mary: Furious. And like I've sent texts to Microsoft saying it would be better if you had an easier way of answering questions. I mean if you, if I could ask a question you could actually answer it that would be better but I never seem to have had any reply to that type of thing.

Mike: So you send off your email

Mary: Yes.

Mike: Or you fill in a query. And.

Mary: Yes. And you don't get any proper reply.

Mike: Don't get any reply.

Mary: Or don't get any reply.

Mike: Or what is it the case mostly?

Mary: No, it's about half and half – half saying that it can't find that anywhere and half saying um some kind of smoothy thing that doesn't actually answer the question.

Mike: Smoothy thing.

Mary: Yes.

Mike: Why do you think it's smoothy? Why did you first say they're smoothy?

Mary: Well, it's trying to make them sound helpful without – it's what my father used to refer to as willing to give you every assistance short of actual help.

Mike: Ha, ha, ha, ha. Ok. Right. Ok. Right. So, is that, how long have you been using computers then?

Mary: Twenty years?

Mike: Presumably...

Mary: No, longer than that. Wait a minute.

Mike: No, because you were involved in the first...

Mary: Yes, in the beginning. So it's about 25, 30 years, I suppose.

Mike: But you, well, now we're 2010 so 20 years'd make it 1990. It must be before then.

Mary: Yes, it was. Between 1980 and 1990, I suppose.

Mike: Because you worked in the print.

Mary: Yes.

Mike: And it was then...

Mary: And I remember us being set up with the new technology.

Mike: Yes, that's right.

Mary: And the first Monday we came in and – this must have been 1981 or 1982.

Mike: Yes. Because that's when Chris Harman wrote his pamphlet, wasn't it?

Mary: We couldn't make anything work.

Mike: Right.

Mary: ...at all and we had to call in the service man.

Mike: Yes.

Mary: And he walked through the room – I'll never forget it – he walked in the room, he walked straight over to the wall and turned the switch on at the wall.

Mike: And that was...

Mary: He said it's nearly always that.

Mike: That happens. People don't turn the machine on.

Mary: Well, they didn't... It was all the machines, you see, but that was...

Mike: That was the power source.

Mary: Yes.

Mike: No, right, but after that it was ok?

Mary: Yes. And I went on a course in Hemel Hempstead, I think, about 1984 or later, um, learning to use Quark.

Mike: Yes.

Mary: Yes. Which is, I mean, I suppose it's still used.

Mike: No, Quark is, it's the industry standard, isn't it? Yes, as opposed to the Adobe suite packages are Photoshop and all that kind of thing. Quark is the page designing thing.

Mary: And word processing and everything.

Mike: Yes.

Mary: Yes. But now they've been taken over a bit by InDesign.

Mike: Yes, InDesign I er teach with this. That's InDesign, yes, and I'm not very good, to tell you the truth.

Mary: I see.

Mike: Um, but, as Cliff used to say, "In the land of the blind the one-eyed man is king."

Mary: It's true, yes.

Mike: I'll tell my students that.

Mary: And, er, and I have a friend, Nigel, who, in the 1990s, I got a bit fed up with it all, I didn't think I'd started from the proper basis.

Mike: No.

Mary: And I asked him to design me a one to one special course.

Mike: Yes.

Mary: And I had six lessons. And he devised some tests. He started me off with real basics like DOS, which is no longer relevant, but means that I have a basic knowledge of computing that a lot of people haven't got. And it means that since then a lot of different things that I have to work with I've been able to work out how to do it because of that course.

Mike: That was quite intensive one to one, specially designed for you.

Mary: Yes.

Mike: That doesn't happen very often, does it?

Mary: No. No, it doesn't, does it?

Mike: No. That's interesting. So when did you buy your first home computer, PC?

Mary: I don't know. About, well, that must have been 1994 or 5 probably, something like that.

Mike: But what machine was it? Can you remember?

Mary: Or late 90.

Mike: Late 90?

Mary: It would've been a Dell. I've got a Dell now. Mm.

Mike: Yes. So it would've been the early to mid 90s you would've bought that Dell machine.

Mary: Or late. I think It may've been later.

Mike: Later?

Mary: It think it may've been.

Mike: Right.

Mary: Because I used machines at work, yes.

Mike: So you didn't need it

Mary: Till 1996 I didn't really need...

Mike: So when did you feel you needed to have the machine at home, then?

Mary: After I'd more or less stopped work and found that there were lots of things I needed to do and I had a small bit of money and so I used that to buy a machine, which caused me no end of trouble.

Mike: Go on. In what way?

Mary: Well, it was always crashing and breaking down and not working. I got really fed up. And didn't have all the sort of resources that I began to feel I needed. I mean at that time I don't think I could get emails, well, I didn't know about emails really then.

Mike: What, in the mid-90s?

Mary: Or late 90s.

Mike: Late 90s?

Mary: Yes.

Mike: Ok.

Mary: Yes. I don't think I knew.

Mike: Right. What, you didn't use email at work?

Mary: No.

Mike: I do remember, I do remember a dinner I went to and it was somebody, I was telling somebody I was now teaching ICT, this was the beginning of the 90s, and he said to me, "What's your email address?" I said, "Oh, I haven't got one just yet." He said, "You teach ICT and you don't have an email address?" And I thought, oh well, that's put me in my place.

Mary: Yes.

Mike: Yes.

Mary: Yes. I mean I don't think I needed or dreamt of anything like that then.

Mike: And now?

Mary: Oh, now, if I go away for a couple of weeks when I come back there's hundreds of emails.

Mike: What, from people you know or spam?

Mary: A mixture. Well, the spam, I have a spam checker and it shoves them all into a spam folder.

Mike: Right. Do you ever check that folder?

Mary: Yes.

Mike: So you go through?

Mary: Not through all of them, but just in case. Like, for example, if I send something from somewhere else to myself, it nearly always classes it as spam. I don't know why. I've told it not to.

Mike: And what does it do?

Mary: It just keeps on doing it.

Mike: So it ignores what you want it to do?

Mary: That particular thing, yes. Mostly not, but with my own name, my own email address, it does.

Mike: So how does that make you feel, then? When you ask the machine for...

Mary: I shout at it.

Mike: You shout at the machine?

Mary: "You're not doing what I told you to do." And when I make a mistake, it puts the mistake in. It should know. What's what my feeling. I feel it should know if I made a mistake. Sometimes if I'm typing in text and it's clearly a mistake, it will change a word.

Mike: Autocorrect. Yes.

Mary: Yes, that's right, which I do find quite useful.

Mike: But?

Mary: Yes, I find that useful.

Mike: So

Mary: That's if the mistakes I make still go in.

Mike: Why's that, then?

Mary: I suppose it doesn't realise it's a mistake. I mean, it's not, it's not got a human brain, has it, the computer?

Mike: No, it hasn't.

Mary: It can't cope with the unexpected. That's what it is, I think.

Mike: They try to be intuitive, don't they?

Mary: Yes, but they're not.

Mike: Why not?

Mary: They're not, are they? I mean that's the difference between a sort of robotic brain and our brain. Our brain seems to have something extra. I don't, we can't explain it exactly but

Mike: It could be millions of years of evolution.

Mary: Well, that, it could be, yes. Yes. Experience.

Mike: Yes.

Mary: Yes.

Mike: Ok. So, I mean, can we talk about, so you've had a computer for, now, mid-90s, oh, we're talking about 15, 15 years you've had a machine at home.

Mary: Probably 13, I should think.

Mike: Thirteen. Ok. And, but you've been using the computers since around about, or computer technology...

Mary: Yes.

Mike: ...from about the beginning of the 1980s? With phototypesetting.

Mary: Yes.

Mike: So what do you think of the softwares that are available for someone like yourself? Tell me what you think.

Mary: {A} They're unbelievably expensive. I mean I would like to have Photoshop on my machine. I can't afford it. You know. It's hundreds of pounds.

Mike: Yes.

Mary: Just to get a software package. There are things that you can download that are free but they're not as good.

Mike: Yes.

Mary: Um, I have a mixed attitude to the software. Some of it's really good, like Google I find very useful, and some of it's just, um, there's Gimp, which is kind of a free version of something like Photoshop. It's not as good. It doesn't have all the possibilities.

Mike: So you'd like, I mean, it's very expensive, so if someone was to give you a free copy, would you have any problems about using it?

Mary: No. I'd be delighted. Absolutely over the moon.

Mike: Ok..Ok. Righty ho, then. So in terms of copying software and stuff like that, you don't see that that – without talking about you in particular. I mean, what do you think about when you hear people copying software and using it for themselves?

Mary: Well, I think they should be entitled to. I mean, I think it should be ok. I know sometimes it's illegal and sometimes it's not.

Mike: Oh, right.

Mary: Is that what you mean? I'm going to turn the radio off in the kitchen.

Mike: Ok. I'll just let the tape run for a little bit. So

Mary: It comes on at noon every day.

Mike: Oh, right. So what's your general attitude towards the technology?

Mary: I mean it's, I think it's very useful. I'm not at all sure how much it has actually speeded things up and it makes me mad that somebody's making huge amounts of profit out of it.

Mike: Out of it. Ok. So what do you think influences – just thinking about yourself, you know, you said you're 74, you're involved in the SPAG. What about the software available of your gender, age and interests. I mean what do you think about the availability of software in those?

Mary: I'm not sure there is any, that's specifically designed for old people who might need a bit more help with things. I'm not sure there is anything.

Mike: And why do you think that is the case?

Mary: Maybe they don't make enough profit out of it. Maybe they haven't even thought of it, more to the point. Maybe Microsoft haven't thought of that kind of thing. But they will have to, won't they? In the future? There are more and more old people.

Mike: But maybe they're thinking – we're getting into a discussion now – but maybe they're banking on the basis that you can only become old if you were young and when you were young you knew the stuff anyway and so you don't need to...

Mary: Oh, that's possible. Yes, I hadn't thought of that. Because I didn't have that possibility, because it didn't exist when I was young.

Mike: Yes. So a thought's just flashed through my mind. And what do you think Microsoft is waiting for you to do?

Mary: Drop dead? Hm, hm. There is one thing I wanted to say. It makes me mad that it's obvious that their inbuilt short-term use for computers, well, all modern sort of electronics, technology doesn't last as long, doesn't last for ever, and it should really, but it doesn't make them as much profit as it does if it lasts for ever.

Mike: Yes. If you were to be able to influence what was happening, what sort of things would you like to see then?

Mary: Oh, yes, um I'd like to see things that were really easy to log onto on, say, Internet Explorer. You could just put in a word or two and you would go straight to some really wonderful software that you could do, write letters with, er, or make newsletters or books or anything like that easily and quickly.

Mike: So just try and be clear. So you're saying – if I'm wrong on this say so – you just turn on the machine, log on and then have, rather than having to go through another set of softwares. Is that what you're saying?

Mary: Yes.

Mike: So it's all like the...

Mary: Yes, yes, yes. All available.

Mike: Opening up the

Mary: Toolbar, and it's got all the things I want on it.

Mike: And what sort of things do you want? Word processing. What else would you want?

Mary: Letter writing. Um, er, pictures.

Mike: Yes.

Mary: Books.

Mike: Books.

Mary: Easy scanning for books.

Mike: Oh, right.

Mary: Yes. XXXXX I've got a text scanning program that I, because I've, um, you know Colin Gill. I've got a book of his written after the sort of idea of Asterix. But he's done a thing called ASTERIX IN GERMANIA and I've got it. It's all in green and he's put pictures in it. And I scanned the whole thing in and it's really useful being able, but it doesn't come out with the page in exactly the same format. It's absolutely infuriating.

Mike: It changes the page round?

Mary: Yes. Even if I do the pages separately it still does that to it. I can get a souped up version of it, but I have to pay for that.

Mike: Right. Yes, so it's about money.

Mary: Yes.

Mike: Right.

Mary: Yes. I mean the text scanner came with my, er, printer and it's very useful.

Mike: But in order to do the, what you want with it...

Mary: It's not sophisticated enough.

Mike: So it's like they give a little taste of what you can do.

Mary: Yes, that's right. And then you can't get the whole thing that you need. Yes. Do you want a cup of tea or something?

Mike: Yes, I'll have one. I'll have a cup of tea. Now just before we go, now just let me ask some questions before the cup of tea. So you mentioned Microsoft a few times and Google a few times. So what do you think of, how do you feel about these large software houses? From where, you know, from what you want to do in your situation?

Mary: I, um, there are things that I can do with Google. I can download programs that do help do all kinds of things. And Google mail is quite useful because it has the Google docs which you've sent me stuff on. Um, but, for example, I had downloaded Google Chrome, which is another...

Mike: Browser.

Mary: ...a browser a year or so ago and it has caused me lots of problems. It caused conflicts with other things. And in the end I got rid of it. And I recently downloaded it again, because it looked as if that would be – and I've had to get rid of it again.

Mike: So you still haven't resolved the conflict?

Mary: No. I tried.

Mike: But you, you say you...

Mary: But that seems to be, I seem to be able to do things for free with Google. I'm not quite sure why.

Mike: Yes.

Mary: Whereas Microsoft, you buy it.

Mike: Yes.

Mary: Well, not everything. I mean my computer came with some...

Mike: With some stuff on it. But you pay for that when you buy the machine.

Mary: Yes.

Mike: It's a licence, isn't it?

Mary: That's true, yes.

Mike: You get a licensed copy. Well, it depends who you get the machine from.

Mary: Yes, I bought it from, god, I can't remember, but a reputable firm anyway.

Mike: But you said you downloaded Google Chrome a year or so ago. I downloaded it about the same sort of time. But I'm not used to this. Then you download it a second time, because you give it a second chance.

Mary: That's right. I did.

Mike: So what's your attitude towards them. I mean do you feel fearful of the technology or what. I mean...

Mary: Yes, I do a bit. I'm never quite sure when I, um, embark on some new program or application or something like that whether it's going to work or cause me problems.

Mike: But you're willing to give it a go.

Mary: Yes. Yes, I'm willing to try. Yes. It's true. I've got, um, er, what's it called, um, a multireader that you can use with cameras and mobile phones and things like that and I have already found that fantastically useful.

Mike: Alright, so it uses different XXXXXX

Mary: I only bought it yesterday.

Mike: So it uses sim cards and key cards and...

Mary: Yes.

Mike: Was it expensive?

Mary: Fourteen ninety nine. Not bad.

Mike: Where from?

Mary: Maplin.

Mike: I'm asking because I'm going to get one.

Mary: Yes. Maplin. Maplin is the place to go, I'd say. Because that's the kind of thing they do. All their goods are to do with electronic equipment.

Mike: They're down in Camberwell.

Mary: No, there's one in, er, Forest Hill. Just round the corner from Forest Hill Station.

Mike: Ok. Righty ho then. I'll give that a go.

Mary: Stansted Road.

Mike: I know Stansted Road. Ok. Do you want to stop and make a cup of tea and then we'll see.

Interview re-starts

Mike: So we were talking about, um, the attitude towards the ICT and computers and etc, etc.

Mary: Yes, yes, yes.

Mike: So let me ask you about how you feel in terms of – you're saying that there's not much by way of ICT for folk in your situation.

Mary: Yes.

Mike: Ok. Where there are ICT folk in a different situation do you think it's the same thing?

Mary: Children.

Mike: Yes. What about them?

Mary: Well, I mean, my grandchildren all seem to have no trouble whatever. They work with anything on the, er, the internet, on any kind of computers. They all have email addresses and all, I mean, my granddaughter, er, Maria, who's 15, spends a large part of her time at home on Facebook.

Mike: Right.

Mary: Yes, that's one of these social networking sites. Er, interaction with all of her friends, having a farm and, er, sending out weird messages and putting loads of photos on there, yes.

Mike: But can I just separate – just a thought's just occurred to me so I'm going to go back and keep it on the interview. So it's that what annoys me – let's be more specific. Is it the things you want to do you can't do or not being able to use the software? What is it that...

Mary: Um, yes, like, for example, I might be typing in an article

Mike: Um.

Mary: And I'd like to make it look better in some way and there are ways now with Microsoft Word that you can, um, highlight the whole text and just press one thing and make it bigger or smaller.

Mike: Yes, yes.

Mary: Which is quite useful. But then I'll find I'll want to do something that's specific to the paragraph and I can go to something that says paragraph, format paragraph. But it won't do exactly what I want, even though I think I've asked it to.

Mike: Yes. So it's the things that you want to do?

Mary: Yes.

Mike: And when it can't do it, that's when the problems start.

Mary: Yes. I end up just shouting at the computer, which is not much help really.

Mike: Why do you shout at the computer?

Mary: Well, because I'm angry that I can't do what I want to do. And that's – my view is, if you want to know my honest opinion, I believe that all machines are part of a universal conspiracy against me personally. Well, and against other people but particularly against me.

Mike: You mean they targeted out of 6.7 billion people they've got their sights on you?

Mary: Yes, I feel like that.

Mike: You feel like that?

Mary: Yes. I know it's silly, but I do feel like that, yes.

Mike: You feel like that? Righty ho. So let's – we might come back to some of this another time. We might have a second bite of the cherry if you wouldn't mind. Only talk about this. So let's – tell me about the Southwark Pensioners Centre now and the ICT provision in the Southwark Pensioners Centre. What – tell me about what you think about it.

Mary: Um, I know that there's one particular machine which has to be switched on all the time if you need to print anything out, anything like that. There's obviously some link up with all the other machines to one particular machine in the corner. And there are lots of things that we, the users of the machines, can't do. Like, for example, if we want to put, um, something spectacular in the Newsletter and, let's say, um, to do with pictures or something like that, or we want to have sound on or something else, um, it'll suddenly – a message will suddenly appear on the computer screen saying you need to update Flash Player.

Mike: Yes.

Mary: So we go to Flash Player, ask it to update it and it comes up with a message saying you have to be the administrator, you haven't got administrator's rights. So then we have to go to the director of the centre, when we can find him, and he has to get somebody to come in and, er, update Flash Player on all the computers. Well, he's done that about three weeks ago and now there's something else we couldn't do. We couldn't watch that thing that I was talking about through – or we couldn't watch something through Facebook, which you normally can. Oh, yes, that's right, a woman going back to work after 30 years. I can't remember if I showed it to you.

Mike: Oh, yes, you showed it to me.

Mary: But we had to look it up. We had to get to it through Internet Explorer.

Mike: Yes.

Mary: And I've got it on Facebook. XXXXXX But we couldn't do that because Flash Player has to be updated again. Yes.

Mike: So you go and find the person who's responsible for...

Mary: The director of the centre we have to ask. I asked one of the people who works there, who works with the computers and doesn't even know – he can't do it. He has to...

Mike: So the person who normally runs the...

Mary: ...centre.

Mike: ...that takes care of the computers

Mary: Sort of the XXXXXX person.

Mike: No, you said a moment – you said if you go and talk to someone who normally uses the computers, they then, they have to go and ask somebody else.

Mary: Yes, well, they won't do it. No. They take it to the director of the centre and he has to get someone else from outside to come in...

Mike: ...to do it.

Mary: Yes.

Mike: So have you ever read anything about how you can be useful with computers?

Mary: No. No. No, I haven't, now you come to mention it. No, I don't think there is – I don't think they have any kind of thing that says you can do this, but you can't do that. And that's interesting because I do a little bit of, er, something called session work from time to time at a sixth form college in Newham and I can look up my accounts while I'm there and I can look up all kinds of different things, but if I try to go to Facebook it comes up with a nasty kind of skull things that says you have been warned.

Mike: What? In the school?

Mary: Yes. You're not allowed to

Mike: A skull?

Mary: Yes, on any of those social networks.

Mike: Why's that, do you think, then, they do that in that school?

Mary: Well, I suppose they think it would cost them a lot of money and waste a lot of time probably. XXXXXX

Mike: And can you use Facebook, can you access Facebook in the centre?

Mary: The pensioners centre, yes.

Mike: That's no problem. But they don't, but they - it's a bit tricky updating...

Mary: Yes.

Mike: ...software?

Mary: Very tricky. We can't do it. We can't update anything. It's absolutely infuriating.

Mike: So do you know why you can't update?

Mary: Because the way that the machinery's all been set up means that certain rights to do certain things have been given to an administrator, which is not XXXXXX

Mike: Why do you think that is?

Mary: I'm not sure really. Maybe they think we could end up costing them a lot of money. I don't know. I don't know if it would, but I think that must be it.

Mike: Have you ever wondered why it is?

Mary: Yes, but I haven't asked. I ought to, shouldn't I?

Mike: I'm not here to tell you.

Mary: No, but maybe I will ask Neil, the director.

Mike: How does that make you feel, when you have to go knocking on someone's door?

Mary: Well, he's very helpful and he did get it done last time when we asked him, so he's not too bad. He's quite approachable. Just to XXXXXX the previous director would've made me feel very bad. She was no help whatever.

Mike: Why was that, then?

Mary: She was a very, seemed like she liked to control everything, felt that she was doing us all a favour by being there and that we shouldn't have a right to do anything. She didn't seem to be aware of the fact that it was the Southwark Pensioners Action Group that set up the centre in the first place.

Mike: Right.

Mary: She brought in charges. We have to pay to use anything there and we have to pay for photocopying – all kinds of things.

Mike: So this is something you set up?

Mary: Yes. Well, Jack Jones it was.

Mike: Jack Jones? Yes, the old T&G bloke.

Mary: That's right. He was responsible for the whole thing getting going.

Mike: Right.

Mary: Yes. And he was, of course, as a result of that responsible for the National Pensioners Convention being set up.

Mike: And does this include the ICT section and everything like that? Or did that come later?

Mary: Of course he's not that XXXXXX

Mike: Ok, so really it comes down to how approachable...

Mary: Yes, it does. This person is much more approachable than she was and I'm going to...

Mike: ...make a cup of tea.

Mary: It must be ready. Yes.

Mike: Ok, I'll just stop this now.

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Mike: Ok, let's just continue doing what we're doing.

Mary: Yes.

Mike: We were talking about Southwark ICT provision. Ok. So who decides then what machines there are and where they're put, how they're laid out and...

Mary: Well, I don't know who originally decided it, because they've been there for some time now. Um, but I suppose if there needed to be any changes that would be decided by the director probably.

Mike: Um, we know, we know, don't we, how it's played out. All the machines are laid out so sitting next and you're facing the wall.

Mary: Yes. Yes,.

Mike: How do you feel about, how do you feel about that layout?

Mary: Never thought about it. I suppose it makes you all a bit apart from each other. I don't know really.

Mike: What if they were all in a circle?

Mary: That might be nicer. I hadn't thought of it at all, but, yes, that might be much nicer. You could see each other's faces. Yes. That might be much better. Yes. But you've put that thought into my head. I hadn't thought of it.

Mike: I know XXXXXX Funnily enough, I hadn't thought of it until we sat talking about it.

Mary interview 6

Mike: So where were we? We were talking about using Facebook and XXXXXX and the SPAG sessions. So, I mean, what about the way they're set up with the preview and the review and all that sort of thing.

Mary: Yes, I mean, when I first typed out some of those I can see the point of them really. You know, it's quite, quite useful to be able to see what people said, what people thought about the whole thing. Um, I mean, the difficulty with Alf is he always thinks it's wonderful.

Mike: Yes.

Mary: But then when you push him a bit, you find out that there are things he needs to know, you know? And in my case, I mean, it hasn't helped me. I have to be honest. It hasn't helped me sort out my database. But it has, there are a couple of things it has helped me with. One is, er, helping teach Alf how to use the machines. And I was very impatient with him and ended up shouting at him a couple of times. And because there were other people there, and you especially pointed out to me that I was, that it would be better if I was more patient, I have actually changed my way of operating. I'm quite glad of that.

Mike: Right. So the structure of the sessions is what you're saying – would this be a fair way of describing it? If it's not just say so.

Mary: Yes.

Mike: The way they work has helped the group become more together in ICT.

Mary: Yes.

Mike: So that it, kind of, there are what you might call things you hadn't anticipated, benefits you hadn't anticipated.

Mary: Definitely.

Mike: But that it's not possible for either me to be dealing with everybody at the same time or dealing with specific problems. The Access thing is about your recipes.

Mike and Mary (lots of unintelligible conversation).

Mike: But I'm just trying to get a wave of the thing, how it was working.

Mary: Yes. I think, um, I mean I was very impressed by Cerene...

Mike: Yes.

Mary: ...one of the times showing Geoff, telling Geoff how to switch the machine off without actually doing it herself. And I'm sure she wouldn't have been able to do that months before.

Mike: You haven't seen her since we XXXXX

Mary: Yes, she's been once or twice. Yes.

Mike: You see that was quite useful

Mary: But you say all that, but I have to admit that although Dolly comes quite often she doesn't do anything except play games on the computer or look up things to do with Simon Hughes, and that's it. She doesn't, she hasn't become a part of, an integral part of the group.

Mike: Why's that, then?

Mary: Hhh! It's hard to tell. I don't really know. We've tried to draw her in, but given up really. There doesn't seem to be much point. Occasionally I ask her what she's doing or where she's going or what she's looking for but I don't really get anywhere.

Mike: Yes. Yes. Yes.

Mary: But the others are all, I would say, we've all become closer together, more a group.

Mike: Right.

Mary: Yes.

Mike: It's interesting, isn't it? Because we hadn't really spoken about that when we first started. We didn't see it as as a social function.

Mary: No, no, we didn't, no. No. We weren't talking about it like that at all.

Mike: And why do you think that is the case? Why do you think, what is it about...

Mary: It's because of the idea that you started off with, that it should be for us to try and structure the course or whatever you like to call it as we wanted it. I think that, even if we haven't managed to do that – well, we have up to a point. It has drawn us closer together, that whole kind of idea of it, of us being in control really.

Mike: Right. And how important were the previews and the reviews in that?

Mary: I mean at the time I wouldn't have thought they were important at all, but they are. They have helped to draw it together, I think.

Mike: Because there's a, I would think, because of the discussion you had before and the discussion you had after...

Mary: After, yes, then we can see...

Mike: You can talk to each other about it.

Mary: ...what we've got. And if we need something else, yes. No, I agree.

Mike: So how does your experience then, in those sessions, contrast with your general experience of ICT, you were talking about earlier on? I mean, is there a contrast or what?

Mary: Yes. There's a huge contrast. For example, I remember, um, when I went on this course about Quark in Hemel Hempstead, um, a flash young man in a smart suit told us what to do with everything, showed us how to incorporate pictures and text and everything else into a newsletter. Hhh! He already had the pictures and the text there and he gave it to us and we had to put them in. And I got a certificate and I did really well, but it didn't teach me anything, to be quite honest. I didn't learn anything about how to make a newsletter from that. I learnt how to use Quark very basically and that's it really. But the talks that we had about the newsletter with you, even though Denise didn't really go along with what we thought, that taught me quite a bit really.

Mike: Right.

Mary: Especially about, well, running the text round the pictures.

Mike: Yes. So, and so, what so...

Mary: It was much more friendly really, user friendly, I would say.

Mike: User friendly?

Mary: Yes.

Mike: And who's, what about issues to do with control?

Mary: Well, yes. I mean, we didn't have any control at that course I went on. But the course that I got my friend to set up for me, even then I wasn't controlling it. He was. So we felt more, we still do feel, we're doing it really.

Mike: You're doing it.

Mary: Yes.

Mike: So. So the question again is sort of like, when you were talking earlier on about ICT, how do you compare your general view about ICT with the view you have about the sessions with SPAG, in the SPAG sessions? I mean did you ever feel like hitting the machine in the SPAG sessions?

Mary: No. Well, no, I didn't actually, now you come to say that.

Mike: Did you ever feel you wanted to shout at the machine in the SPAG sessions?

Mary: Yes. Particularly when I put a memory stick in and nothing happened.

Mike: But did you shout? Did you shout?

Mary: I think I did, yes. I didn't swear. Once or twice, but nothing like when I'm here.

Mike: Like when you're here on your own?

Mary: Yes.

Mike: Ok. Right. So let me just ask, so we're continuing with the sessions. Now we've got another one Wednesday.

Mary: Yes.

Mike: That's right, isn't it? Yes.

Mary: After we've been on the, um, on the National Pensioners Convention rally and lobby.

Mike: Yes, we're coming to that after. Right. So now, I mean, when, when you're here by yourself with the machine, how do you feel? Do you feel connected or disconnected?

Mary: I feel as if it's a member of my family that I'm interacting with and it's being obstinate.

Mike: An obstinate member of your family.

Mary: Yes.

Mike: Ok. What about, ok, let's think what was happening in the SPAG centre. Did you feel that they...

Mary: No, not really. Because I think because of the interaction of the group, that's a different matter, yes. We were all – I don't like to quote, um, David Cameron, but we're all in it together. Ha ha ha ha.

Mike: We're all in it together, except some of us are in deeper than others. XXXXXX
Yes. Ok. Um. No. Actually that's fair enough, because I mean, well, decisions are being made about expenditure on IT and ICT, which are going to affect...

Mary: Well, all that stuff they were saying a year or so ago about everybody in the country's going to have access to broadband.

Mike: Yes.

Mary: I don't know if they will. It's gone very quiet.

Mike: That's gone very quiet, very quiet. So just to kind of try and tease a little bit more out of it. It's – when you're in the SPAG sessions there's a sense of community. If I'm putting words in your mouth, say so.

Mary: A sense of a group.

Mike: Yes, you use that before, and the group has achieved something.

Mary: Yes.

Mike: And that something is more than just simply how to use the technology.

Mary: Yes.

Mike: That does seem to be. And I got, not being an intimate member of the group, I, that's was something I hadn't really...

Mary: I'll add something to that. Alf's wife died last year and I think this has actually given him...

Mike: Ah.

Mary: ... a sort of new lease of life, if you like, really. Yes. Well it's bound to, you know.

Mike: Crikey Moses.

Mary: Yes.

Mike: I wouldn't have thought so.

Mary: No, I wouldn't either.

Mike: He's interested.

Mary: To start learning about computers and the internet, you know, when you're ninety. Fantastic.

Mike: But he's up for it, isn't he?

Mary: Oh yes.

Mike: He's a...

Mary: That first session that we had...

Mike: Yes.

Mary: ...he said he felt he ought to come along, but he wasn't really that interested and his kids are always going on about email and he wants nothing to do with it.

Mike: Yes. That's right. He thought there's something happening here which I want to be part of.

Mary: Almost against his will.

Mike: So what do you think would – it's a question here, which can be answered on a number of different levels – and I don't – if you want to move between the levels in your answer that is fine. So what do you think, um, could be done that would enable you to make greater use of ICT then?

Mary: Um, I suppose what I suggested earlier, that there might be, might be able to look for specific resources that I would want or we'd all want. Or easier, I mean I know we all have that Google docs, but we haven't really managed to – I and Denise haven't really managed to do anything with that. I don't know if there might be a more,

an easier way of, erm, interacting with ICT as a group. I don't know. Because it's not been, it's only been partly thought about, but it's all business, isn't it? Yes, it's sort of, um, er, the whole kind of business plans and the free market and everything, and we want something that's friendly, that helps us in our daily life, if you like. I mean I found out where to get this multi-cardreader by, I just looked on the internet, on Internet Explorer and it came up with a suggestion of Maplin's and I looked up where the nearest one was.

Mike: Yes.

Mary: Which was nice and easy. That sort of thing is helpful. But then other times I'll look something up, I mean to get that Blu-Ray player I gave up looking out for anything on the internet in the end. I looked in my Tesco catalogue.

Mike: Tesco catalogue.

Mary: Huh huh huh. Yes.

Mike: So what about the imperatives, say, or the motivations of the big software houses? I mean you were critical of those earlier on.

Mary: I was XXXXXX I know they talk as if they're out to help the world.

Mike: Yes.

Mary: But in fact part of their, um, raison d'être is making money.

Mike: Yes.

Mary: Yes. I mean who's the richest man in the world? Bill Gates. Yes.

Mike: Yes. What about what XXXXXX does?

Mary: But he does put loads of money into charitable things, I know.

Mike: But we still have to pay an arm and a leg for software.

Mary: Yes.

Mike: The money for the Southwark Pensioners Centre that comes from... Who gives...

Mary: Some funding from Southwark Council, which may, of course, be cut completely or to the bone in the near future, and then they apply for funding from loads of different funding bodies.

Mike: Right. And who makes the decisions of Southwark Council for how much money they receive?

Mary: I suppose it's their financial section.

Mike: Do you know who it is?

Mary: Well, I met a bloke who's going to set their new budget at a so-called Democracy Commission Conference in September and I can't remember his name, but he was saying there had to be cuts.

Mike: So do you have any control over that budget?

Mary: Only in so far as we can, um, vote that, vote those councillors out when the next election comes. That's it.

Mike: And it's a Labour council?

Mary: Yes, it's huge, a complete turnaround.

Mike: So it – but if you've got a Labour council that's in there making cuts...

Mary: Yes.

Mike: And the only way you've got control over them is to vote for somebody else, who else is there to vote for?

Mary: Well, I mean, we had a Green Party councillor, um, in this ward in the last regime, but she got voted out this time.

Mike: But, I mean, who would most likely form – if you're going to XXXXXX

Mary: Oh, it would probably be the Lib Dems. Yes.

Mike: What would they do?

Mary: Well, they were...

Mike: Would they introduce cuts?

Mary: Yes, I think they were already into that kind of thing before.

Mike: The only reason I'm asking is because it seems then it doesn't matter who you vote for, you're going to get cuts.

Mary: Yes.

Mike: Well, how does that make you feel in terms of control of the money for the Centre, or money *for* the Centre?

Mary: Very frustrated. But, for example, Denise is going out with the leader of the council and the woman in charge of, um, er, adult social care, something like that, um, to look at possible places to have our base instead of what we've got at the moment during the week, and that's definitely still going ahead, so it's possible, there is an element of control. We did have a, a Centre AGM the week before last at which councillors were there and, I mean, you can't tell how much – one of the problems is you talk to the councillors, they're very helpful, very obliging, and then they go away and do something else. You don't, you can't always be certain that they're going to do what they say. But I would say this lot do seem to be a bit better than the last lot. But, um, now they say they're, um, going to sell off, um, council housing, no, houses in the street.

Mike: Yes.

Mary: To pay for various things, yes.

Mike: Um, ok then. I think we're covered quite a lot one way and another. Is there anything do you think that comes to your mind about the things we've been talking about and maybe I've not covered or we've not discussed.

Mary: There's something in the back of my mind struggling to get out but I can't remember what it was. Um, I might remember by Wednesday. I'm very impressed with that. What is it?

Mike: I'll just turn this off.

Mary interview 7

Mike: But let's take, ok, let's take the frustration. You said it, you said it quite clearly, you said when we were in the group...

Mary: Yes.

Mike: In Southwark, and, I think you said I don't feel as frustrated.

Mary: Yes, that's right.

Mike: In other words, I don't feel, I don't feel my alienation is expressed as strongly, in that situation. But what I. And then you followed it up by saying but when I'm here on my own...

Mary: Yes.

Mike: But here's the problem. The problem is, and I think I'm right here, the problem is that if you've got this too... Is it that at one, in one context your alienation is stronger and, but in another context it's weaker? Because if it's stronger and weaker, you may, and this is my problem, you're measuring alienation, and once you start measuring alienation you can say the artist is less alienated because we can measure the level of alienation. Now I think I've got my head around this, which is to say no, actually, that the artist may feel less alienated because they've got more control over their art when they're doing it, but that how do they feel about electricity bills, gas bills, schooling, education?

Mary: Quite right, yes.

Mike: I'm not quite, I can't remember Chris Nineham's discussion.

Mary: But materials.

Mike: I'm not sure if Chris Nineham took that particular line of...

Mary: Right.

Mike: ...line of argument. So I need to go back and read...

Mary: Yes, I can't remember. I mean, yes, I'm sure that's right. Because, for example, when I'm working, when I'm at a SPAG session those machines and other people and what we're doing and stuff, so not, I'm not thinking about the electricity bills and...

Mike: No.

Mary: ...stuff like that, am I?

Mike: No. You see, you don't, if it's, the argument from a critical reader's perspective as a tool he would say that the alienation is there.

Mary: Yes.

Mike: It exists. But that certain conditions would generate the, the, how we do things, would allow that alienation to be expressed.

Mary: Yes.

Mike: In other instances...

Mary: We've got, yes.

Mike: And I think that's, you know, XXXXXX Marxist, yes, I'm struggling to find a quote here but...

Mary: You need to look at something of Lukacs.

Mike: Well, it's this notion that if you recognise the alienation and then you struggle against it...

Mary: Yes.

Mike: ...you don't feel, you don't, the alienation isn't any less, but you feel...

Mary: But you feel you've done something.

Mike: ...you've done something. You try to deal with it in that way.

Mary: A bit of control, yes.

Mike: That's the thing.

Mary: I think so, yes.

Mike: That's the thing. And I think that's what I've been trying to do in the SPAG sessions.

Mary: Yes.

Mike: Get control over to the users.

Mary: Yes. And it's more than that, because we, um, we can help each other to cope with those things.

Mike: Yes, that's contrary.

Mary: Yes. Not sitting there thinking I have to do this, I've got to get this right, or it's a competition or anything like that. No, we can say to each other I can't work out how to, no, Denise'll come up and say, oh, you should've done that.

Mike: And it's perfectly natural.

Mary: Yes. Yes.

Mike: Because it's not a competitive environment.

Mary: That's right. Yes. Yes.

Mike: No.

Mary: No, I think that's spot on.

Mike: Yes.

Mary: I've always been against competition anyway since I was a little kid.

Mike: Because it's...

Mary: Because it stops, um, er, people from realising their full potential, what you can do together with others.

Mike: Yes. Yes.

Mary: Yes.

Mike: There's all kinds of other things about, um, relationships with others, um, Marx, um, there's individualism exists only so far as the individual has relationships with other people, so we are the sum of our relationships and if we're in an environment where we feel, as you just said, it's not competitive...

Mary: That's right.

Mike: ...then these are positive sets of relationships.

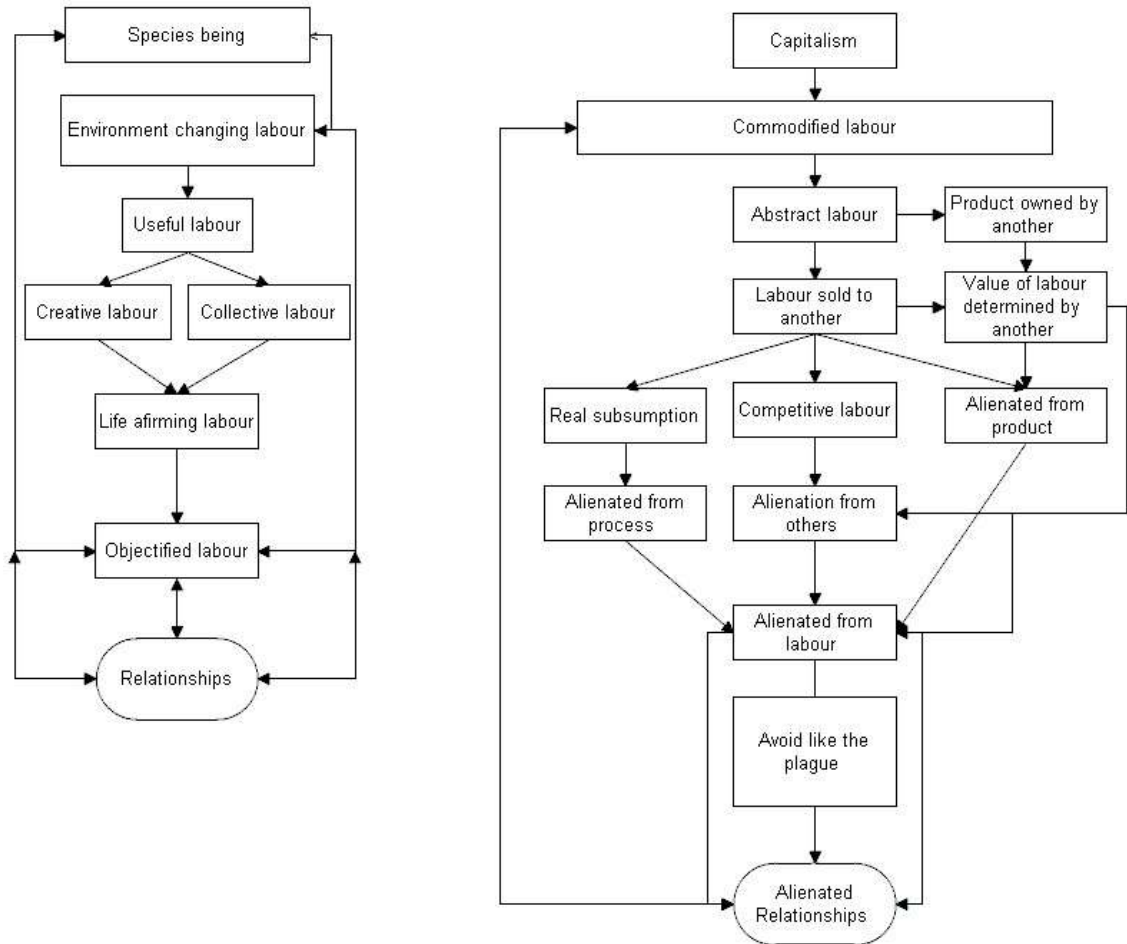
Mary: That does happen with a lot of artists, particularly people like Rembrandt, that they work together with their students and stuff like that, yes. He didn't make them feel like, you know.

Mike: As if you were a little... Yes, that's interesting. Ok, well, what I'll try to do what I can. Let me say thanks for taking your time to talk to me. And for the cup of tea.

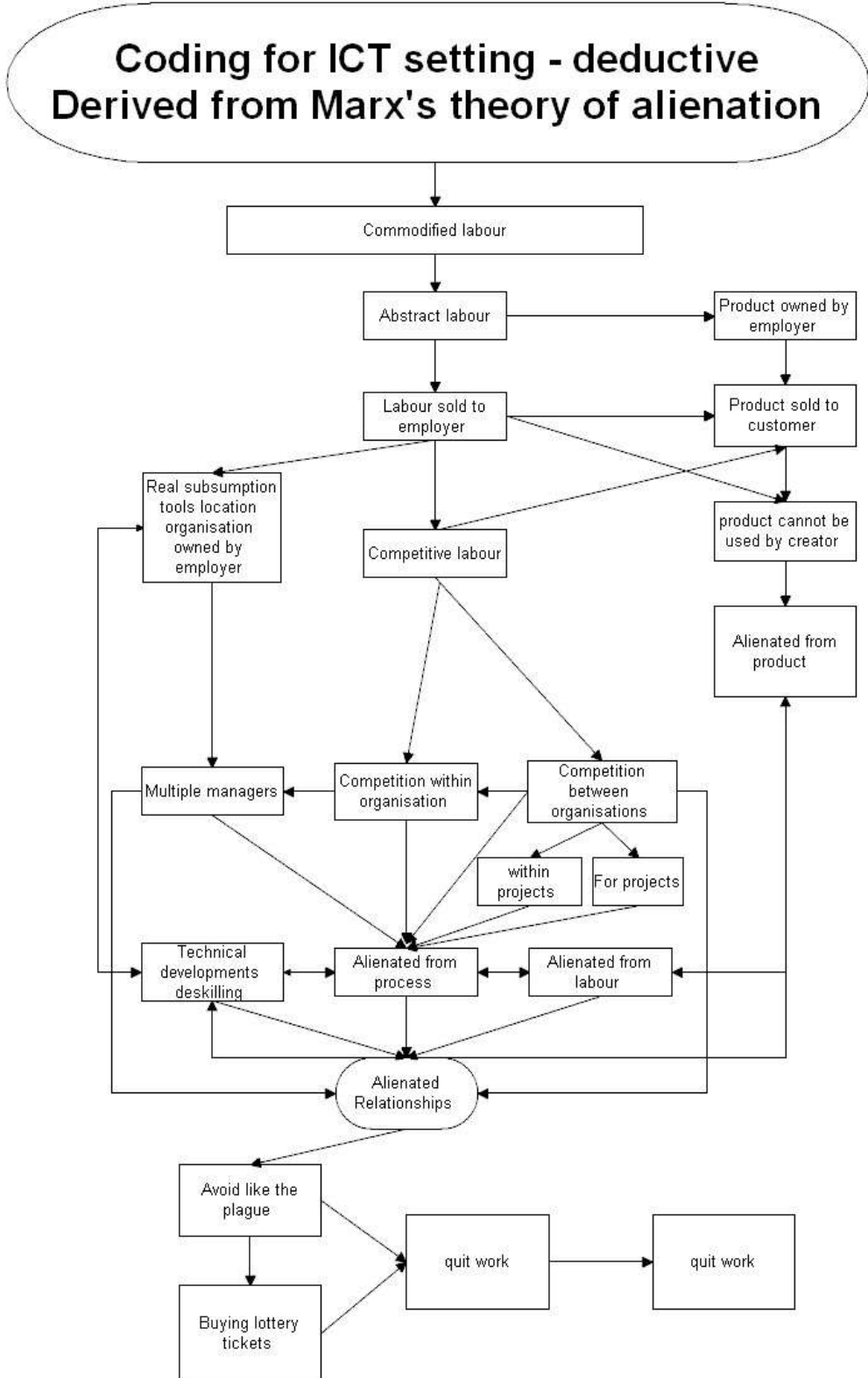
Q33 How did these problems/experiences make you feel?

I turn my back to it. Because I understand that it doesn't annoy the majority of users. That it is my problem and since I have the freedom to choose whether to tackle the problem or do something about it or not to, most of the time I say OK I cannot see these letters so I turn the computer off. That's it. Remember I am not a sophisticated information communications technology user, OK. It is my problem in that I cannot use in the way that I would like to use it. And I do not have the technical experience and knowledge to do something about it. These issues are not important enough for me because I can live without them so I am just leaving it. The important things to me are the things I was just telling you about. But on a personal level I can organise my life. (I ask if she feels it is her fault she cannot read the screen.) Well it is my eyes and I know that if really, really wanted it I could get it right. The problem is your questions to me are that there is nothing that I would say diminishes my quality of life. I am pretty comfortable with what I have here in terms of information communications technology and so on and I am pretty comfortable with the level of assistant I can get. I probably will be very unhappy very soon when I will be forced to start delivering courses online. I will learn how to do it. I will complain but I will do it. Do you see where I stand? I use information communications technology when I am forced to. I learn information communications technology when I am forced to. This is not something I am intrinsically interested in as a user. I am not a techie and I am not of the generation who know information communications technology

Coding - deductive
Derived from Marx's theory of alienation

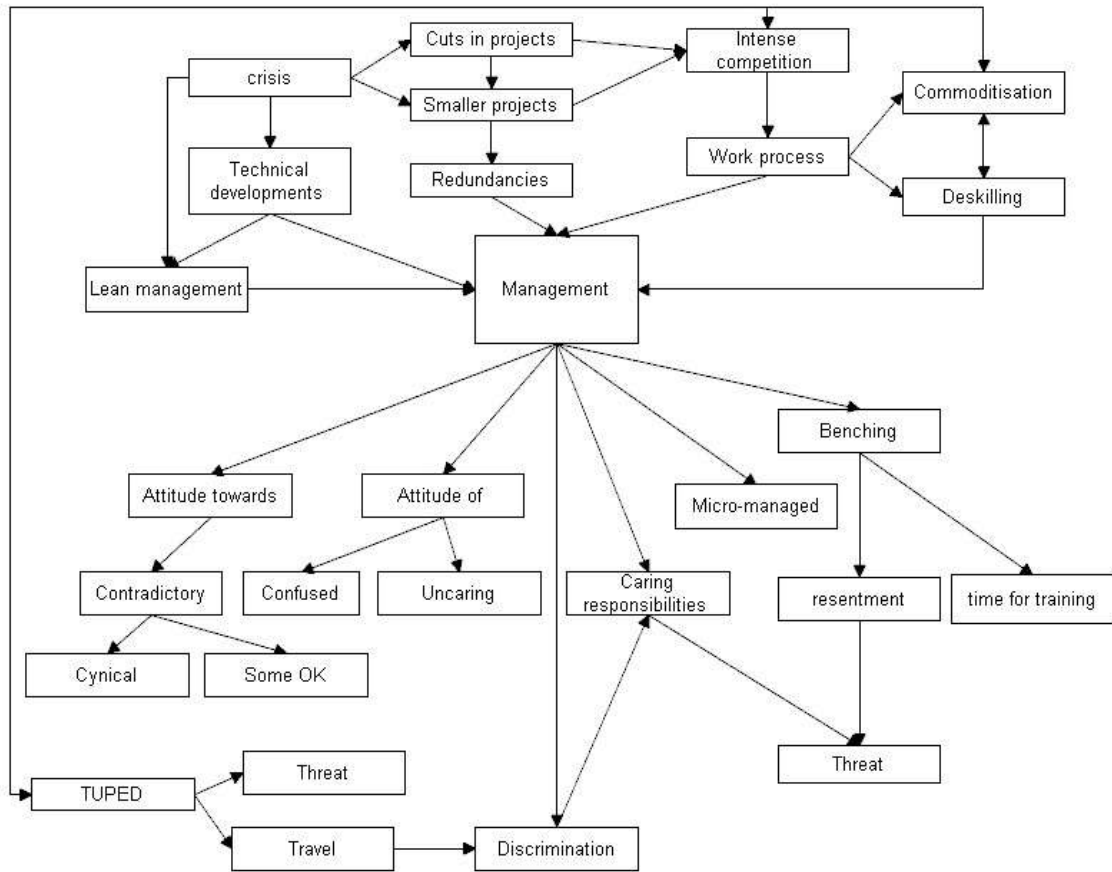


Appendix H: Coding ICT setting – deductive

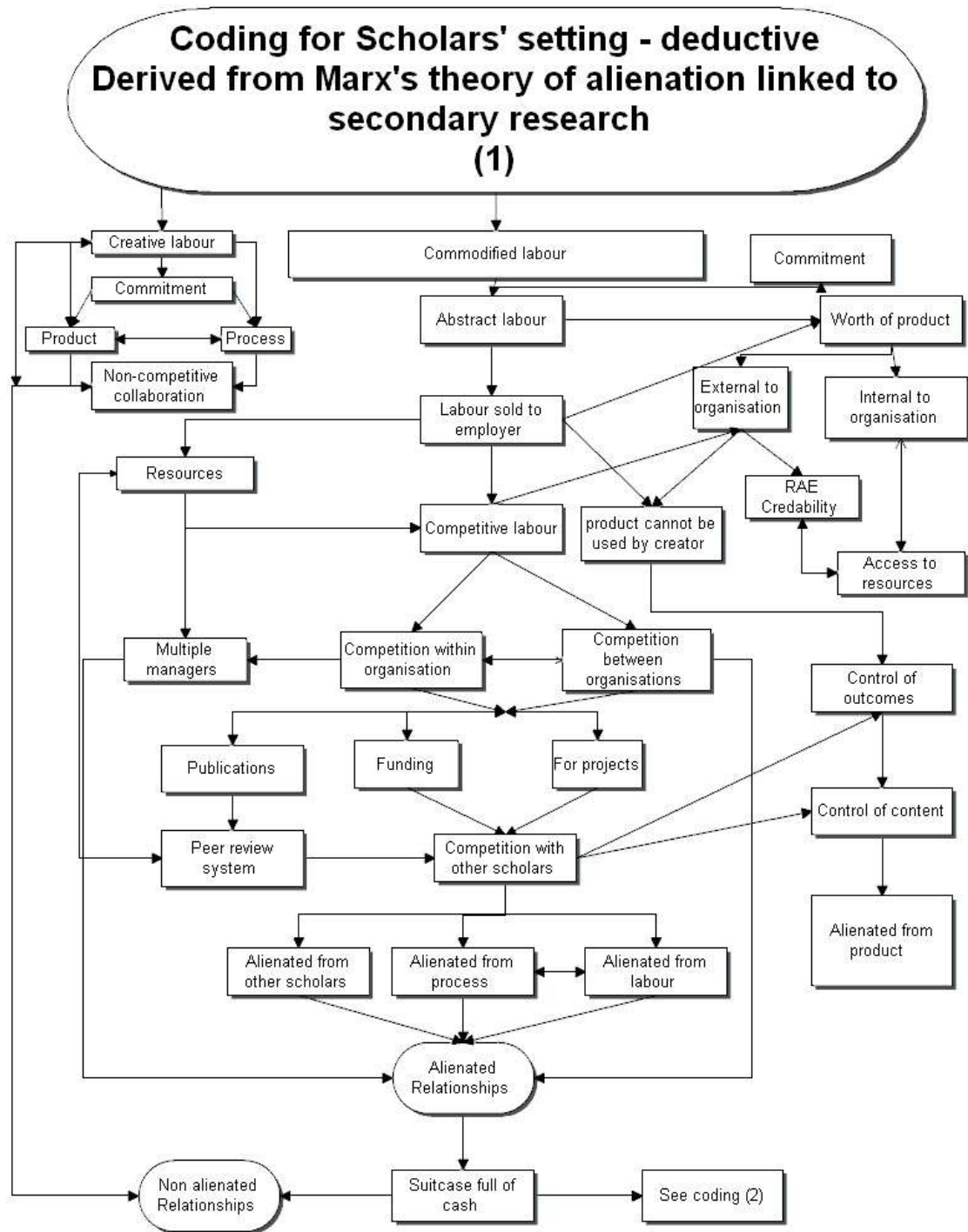


Appendix I: Coding – ICT setting- emic

**Coding - emic
ICT professionals setting**

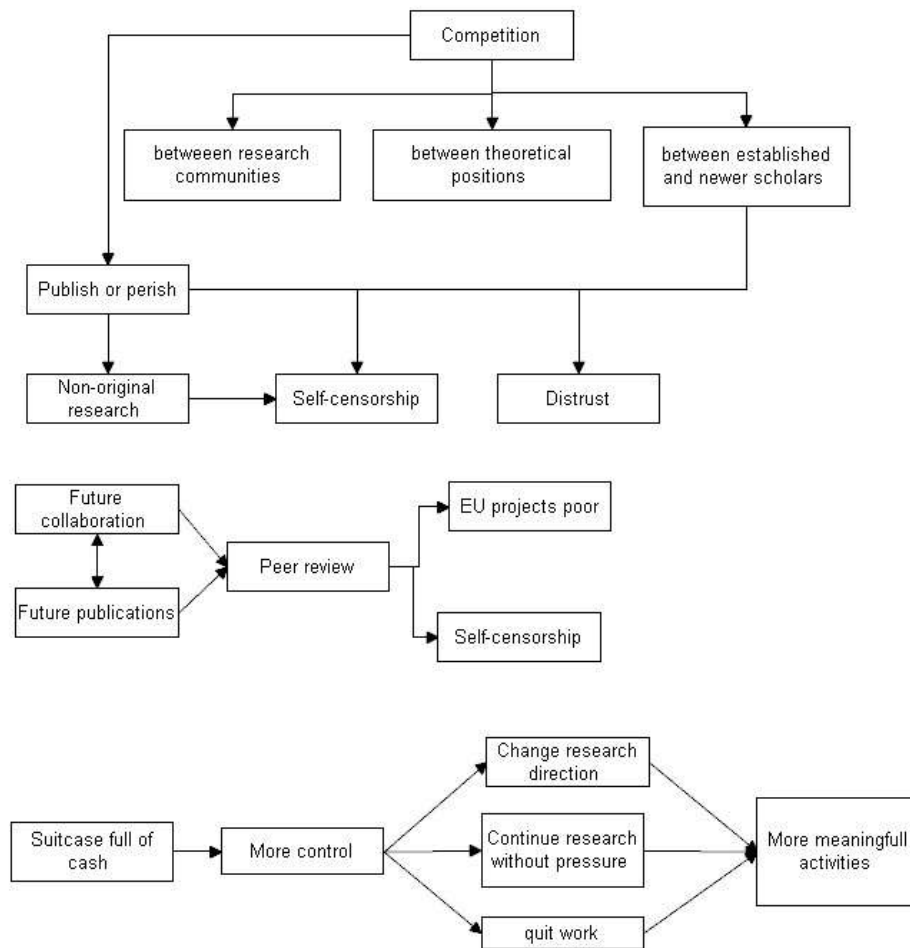


Appendix J: Coding – Scholar setting - deductive



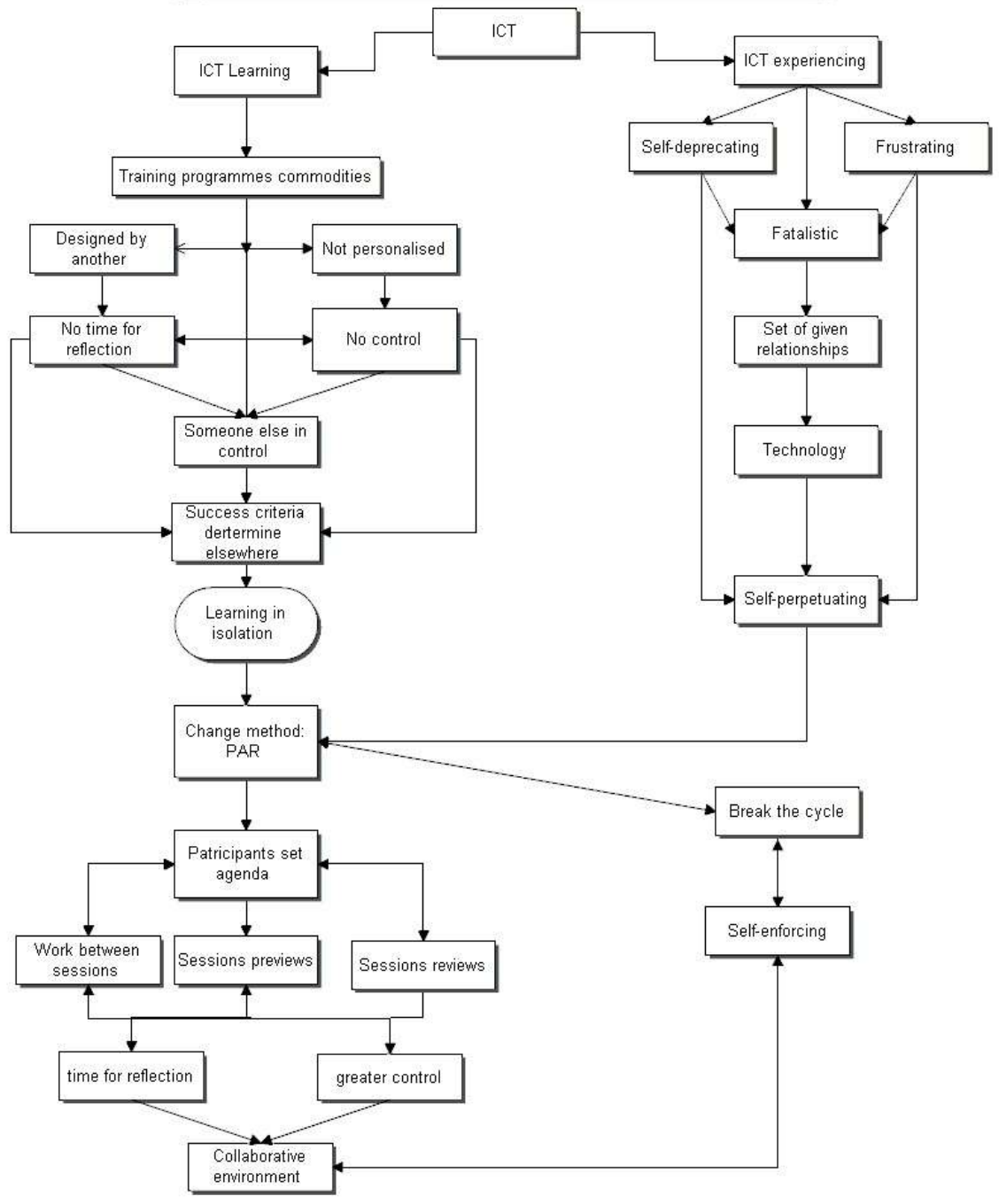
Appendix K: Coding – Scholar setting - emic

Coding - emic Scholars setting

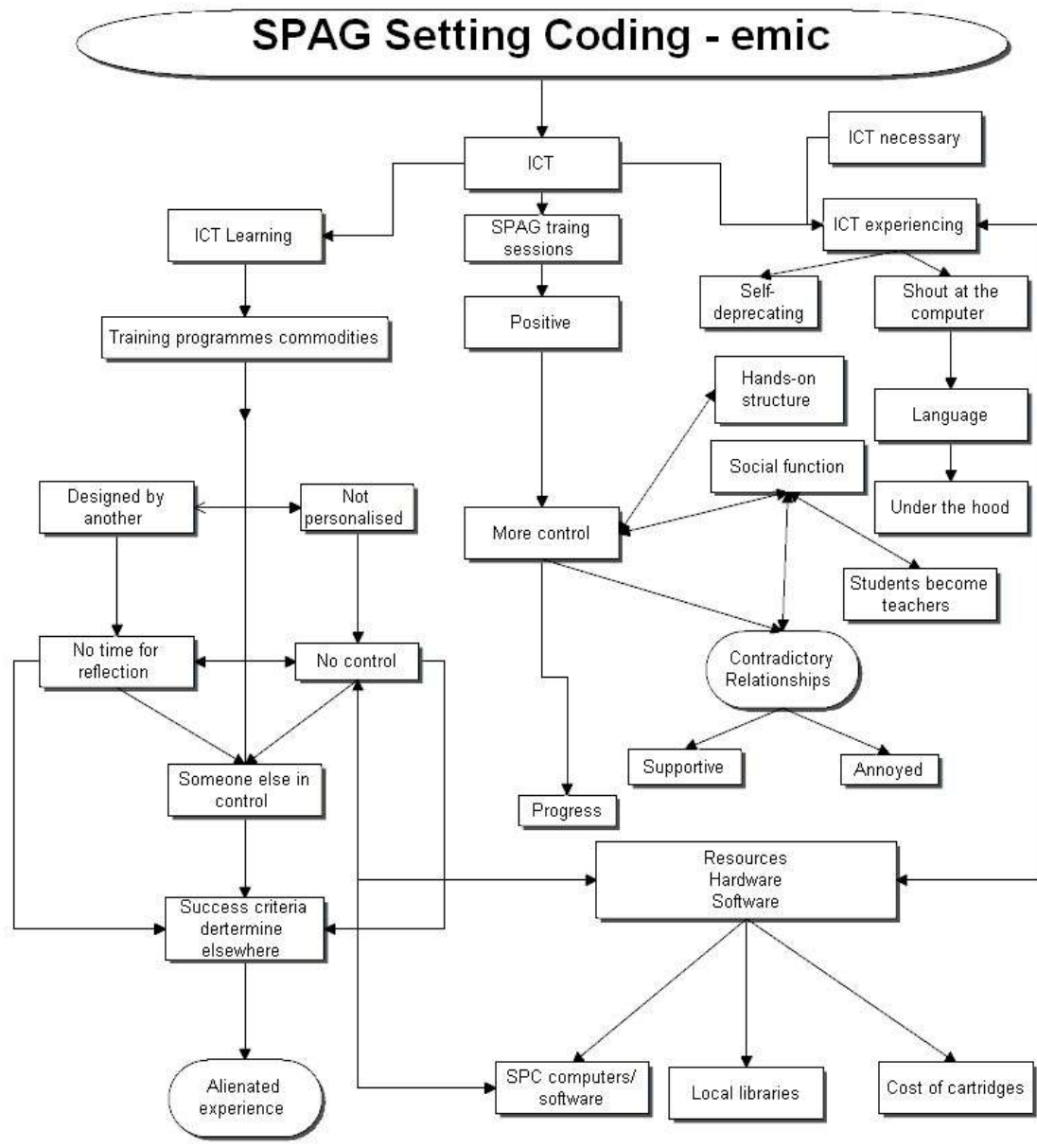


Appendix L: Coding – SPAG setting – deductive

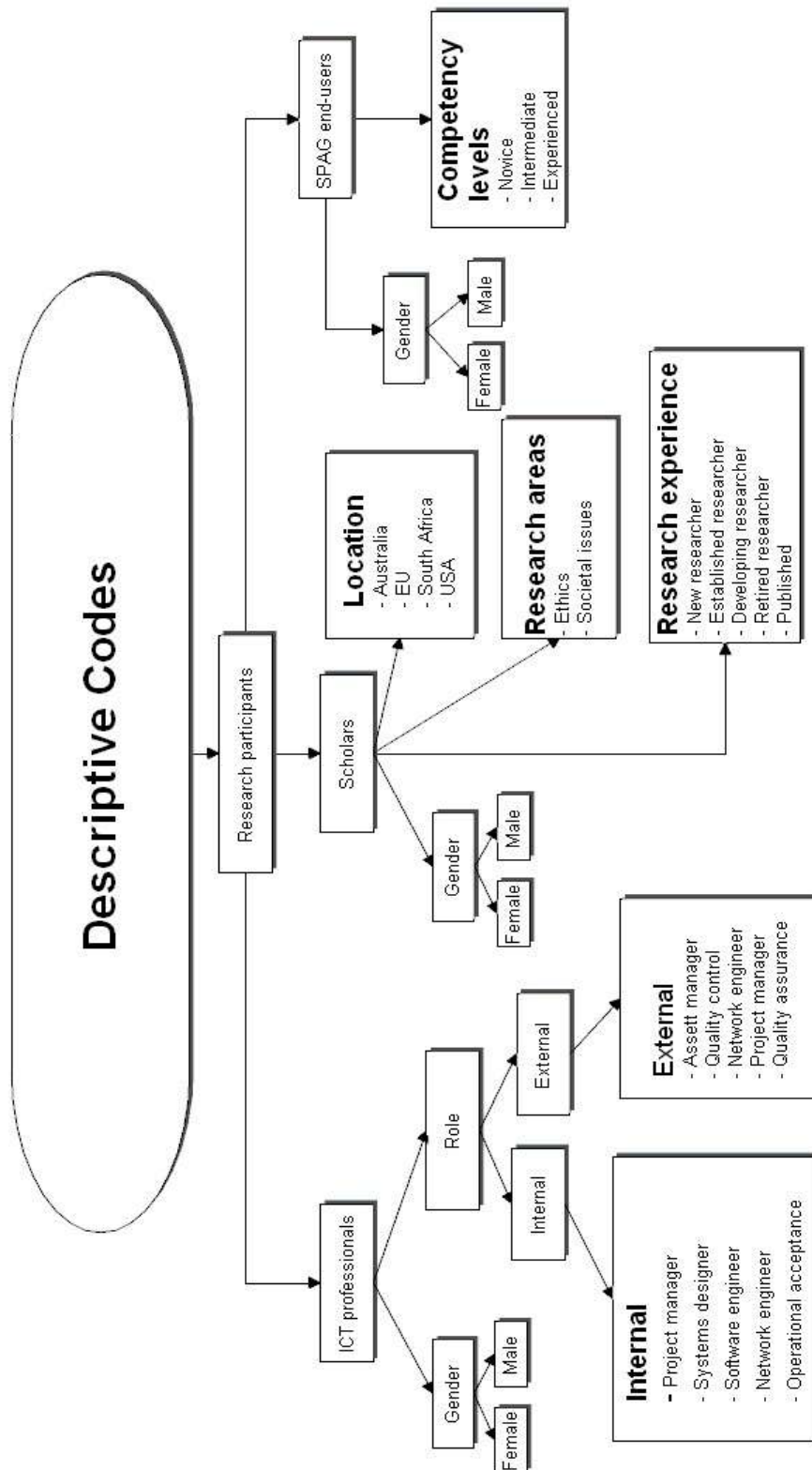
SPAG Setting Coding - deductive
Derived from Marx's theory of alienation and secondary research



Appendix M: Coding –SPAG setting – emic



Appendix N: Coding: Descriptive



Appendix O Quotes from Marx concerning alienation

Economic and philosophic Manuscripts 1970

“As the result of the accumulation of much labor, capital being accumulated labor; as the result, therefore, of the fact that more and more of his products are being taken away from the worker, that to an increasing extent his own labor confronts him as another man’s property and that the means of his existence and his activity are increasingly concentrated in the hands of the capitalist.”(p 67)

“Just as he is thus depressed spiritually and physically to the condition of a machine and from being a man becomes an abstract activity and a belly, so he also becomes ever more dependent on every fluctuation in market price, on the application of capital, and on the whim of the rich. Equally, the increase in the class of people wholly dependent on work intensifies competition among the workers, thus lowering their price. “(p 68)

“The raising of wages excites in the worker the capitalist’s mania to get rich, which he, however, can only satisfy by the sacrifice of his mind and body. The raising of wages presupposes and entails the accumulation of capital, and thus sets the product of labor against the worker as something ever more alien to him. Similarly, the division of labor renders him ever more one-sided and dependent, bringing with it the competition not only of men but also of machines. Since the worker has sunk to the level of a machine, he can be confronted by the machine as a competitor. “(p 69)

“The political economist tells us that everything is bought with labor and that capital is nothing but accumulated labor; but at the same time he tells us that the worker, far from being able to buy everything, must sell himself and his humanity. “(p 70)

“But when society is in a state of progress, the ruin and impoverishment of the worker is the product of his labor and of the wealth produced by him. The misery results, therefore, from the *essence* of present-day labor itself.” (p 71)

“Capital is thus the governing power over labor and its products. The capitalist possesses this power, not on account of his personal or human qualities, but inasmuch as he is an owner of capital. His power is the purchasing power of his capital, which nothing can withstand. “(p78)

“Later we shall see first how the capitalist, by means of capital, exercises his governing power over labor, then, however, we shall see the governing power of capital over the capitalist himself.”(p78)

“When, therefore, this large capital is opposed by small capitals with small profits, as it is under the presupposed condition of intense competition, it crushes them completely.” (p 85)

“The worker becomes all the poorer the more wealth he produces, the more his production increases in power and size. The worker becomes an ever cheaper commodity the more commodities he creates. The *devaluation* of the world of men is in direct proportion to the *increasing value* of the world of things. Labor produces not only commodities; it produces and the worker as a *commodity* – and this at the same rate at which it produces commodities in general.” (p 107)

“This fact expresses merely that the object which labor produces – labor’s product – confronts it as *something alien*, as a *power independent* of the producer. The product of labor is labor which has been embodied in an object, which has become material: it is the *objectification* of labor. Labor’s realization is its objectification. Under these economic conditions this realization of labor appears as *loss of realization* for the workers; objectification as *loss of the object and bondage to it*; appropriation as *estrangement*, as *alienation*. “(p108)

“All these consequences are implied in the statement that the worker is related to the *product of his labor* as to an alien object. For on this premise it is clear that the more the worker spends himself, the more powerful becomes the alien world of objects which he creates over and against himself, the poorer he himself – his inner world – becomes, the less belongs to him as his own.” (p 108)

“Thus the more the worker by his labor *appropriates* the external world, sensuous nature, the more he deprives himself of *means of life* in two respects: first, in that the sensuous external world more and more ceases to be an object belonging to his labor – to be his labor’s *means of life*; and, second, in that it more and more ceases to be *means of life* in the immediate sense, means for the physical subsistence of the worker. “(p109)

“*The direct relationship of labor to its products is the relationship of the worker to the objects of his production*. The relationship of the man of means to the objects of production and to production itself is only a *consequence* of this first relationship – and confirms it. We shall consider this other aspect later. When we ask, then, what is the essential relationship of labor we are asking about the relationship of the *worker* to production.” (p110)

“His labor is therefore not voluntary, but coerced; it is *forced labor*. It is therefore not the satisfaction of a need; it is merely a *means* to satisfy needs external to it. Its alien character emerges clearly in the fact that as soon as no physical or other compulsion exists, labor is shunned like the plague. External labor, labor in which man alienates himself, is a labor of self-sacrifice, of mortification. Lastly, the external character of labor for the worker appears in the fact that it is not his own, but someone else’s, that it does not belong to him, that in it he belongs, not to himself, but to another. “(p111)

“This relation is the relation of the worker to his own activity as an alien activity not belonging to him; it is activity as suffering, strength as weakness, begetting as emasculating, the worker’s *own* physical and mental energy, his personal life – for what is life but activity? – as an activity which is turned against him, independent of him and not belonging to him. Here we have *self-estrangement*, as previously we had the estrangement of the *thing*.” (p111)

“In estranging from man (1) nature, and (2) himself, his own active functions, his life activity, estranged labor estranges the *species* from man. It changes for him the *life of the species* into a means of individual life. First it estranges the life of the species and individual life, and secondly it makes individual life in its abstract form the purpose of the life of the species, likewise in its abstract and estranged form. (“p112)

“In creating a *world of objects* by his personal activity, in his *work upon* inorganic nature, man proves himself a conscious species-being, i.e., as a being that treats the species as his own essential being, or that treats itself as a species-being.” (p 113)

“Estranged labor turns thus:

(3) *Man’s species-being*, both nature and his spiritual species-property, into a being *alien* to him, into a *means* of his *individual existence*. It estranges from man his own body, as well as external nature and his spiritual aspect, his *human* aspect.

(4) An immediate consequence of the fact that man is estranged from the product of his labor, from his life activity, from his species-being, is the *estrangement of man* from *man*. When man confronts himself, he confronts the *other* man. What applies to a man’s relation to his work, to the product of his labor and to himself, also holds of a man’s relation to the other man, and to the other man’s labor and object of labor. “(p 114)

“Let us now see, further, how the concept of estranged, alienated labor must express and present itself in real life.

If the product of labor is alien to me, if it confronts me as an alien power, to whom, then, does it belong?

To a being *other* than myself”. (p115)

“The *alien* being, to whom labor and the product of labor belongs, in whose service labor is done and for whose benefit the product of labor is provided, can only be *man* himself.

If the product of labor does not belong to the worker, if it confronts him as an alien power, then this can only be because it belongs to some *other man than the worker*. If the worker’s activity is a torment to him, to another it must give *satisfaction* and pleasure. Not the gods, not nature, but only man himself can be this alien power over man.”(p115)

“In the real practical world self-estrangement can only become manifest through the real practical relationship to other men. The medium through which estrangement takes place is itself *practical*. Thus through estranged labor man not only creates his relationship to the object and to the act of production as to powers [in the manuscript *Menschen* (men) instead of *Mächte* (powers). – Ed.] that are alien and hostile to him; he also creates the relationship in which other men stand to his production and to his product, and the relationship in which he stands to these other men. Just as he creates his own production as the loss of his reality, as his punishment; his own product as a loss, as a product not belonging to him; so he creates the domination of the person who does not produce over production and over the product. Just as he estranges his own activity from himself, so he confers upon the stranger an activity which is not his own.” (p116)

“2) From the relationship of estranged labor to private property it follows further that the emancipation of society from private property, etc., from servitude, is expressed in the *political* form of the *emancipation of the workers*; not that *their* emancipation alone is at stake, but because the emancipation of the workers contains universal human emancipation – and it contains this because the whole of human servitude is involved in the

relation of the worker to production, and all relations of servitude are but modifications and consequences of this relation.” (p118)

“Having seen that in relation to the worker who *appropriates* nature by means of his labor, this appropriation appears as estrangement, his own spontaneous activity as activity for another and as activity of another, vitality as a sacrifice of life, production of the object as loss of the object to an alien power, to an *alien* person – we shall now consider the relation to the worker, to labor and its object of this person who is *alien* to labor and the worker.” (p119)

“The worker is the subjective manifestation of the fact that capital is man wholly lost to himself, just as capital is the objective manifestation of the fact that labor is man lost to himself.” (p120)

“For it, therefore, the worker’s needs are but the one *need* – to maintain him *whilst he is working* and insofar as may be necessary to prevent the *race of laborers* from [dying] out. The wages of labor have thus exactly the same significance as the *maintenance* and *servicing* of any other productive instrument, or as the *consumption of capital* in general, required for its reproduction with interest, like the oil which is applied to wheels to keep them turning.” (p121)

“The positive transcendence of *private property* as the appropriation of *human* life, is therefore the positive transcendence of all estrangement – that is to say, the return of man from religion, family, state, etc., to his *human*, i.e., *social*, existence. Religious estrangement as such occurs only in the realm of *consciousness*, of man’s inner life, but economic estrangement is that of *real life*; its transcendence therefore embraces both aspects.” (p 136)

“We see how subjectivism and objectivism, spiritualism and materialism, activity and suffering, only lose their antithetical character, and – thus their existence as such antitheses only within the framework of society; <we see how the resolution of the *theoretical* antitheses is *only* possible in a *practical* way, by virtue of the practical energy of man. Their resolution is therefore by no means merely a problem of understanding, but a *real* problem of life, which *philosophy* could not solve precisely because it conceived this problem as *merely* a theoretical one.” (p 140)

Grundrisse 1973

“The degree and the universality of the development of wealth where *this* individuality becomes possible supposes production on the basis of exchange values as a prior condition, whose universality produces not only the alienation of the individual from himself and from others, but also the universality and the comprehensiveness of his relations and capacities.” (p 162)

“Property, too, is still posited here only as the appropriation of the product of labour by labour, and of the product of alien labour [*fremder Arbeit*] by one’s own labour, in so far as the product of one’s own labour is bought by alien labour. Property in alien labour is mediated by the equivalent of one’s own labour. This form of property – quite like freedom and equality – is posited in this simple relation. In the further development of exchange value

this will be transformed, and it will ultimately be shown that private property in the product of one's own labour is identical with the separation [*Trennung*] of labour and property, so that labour will create alien property [*fremdes Eigentum*] and property will command alien labour." (p 238)

"Finally, the result of the process of production and realization is, above all, the reproduction and new production of the relation of capital and labour itself, of capitalist and worker. This social relation, production relations, appears in fact as an even more important result of the process than its material results. And more particularly, within this process the worker produces himself as labour capacity, as well as the capital confronting him, while at the same time the capitalist produces himself as capital as well as the living labour capacity confronting him. Each reproduces itself, by reproducing its other, its negation. The capitalist produces labour as alien; labour produces the product as alien." (p 458)

"In order to express the relations into which capital and wage labour enter as *property relations* or *laws*, we need do no more than express the conduct of both sides in the *realization process* as an *appropriation process*. For example, the fact that surplus labour is posited as surplus value of capital means that the worker does not appropriate the product of his own labour; that it appears to him as *alien property*; inversely, that *alien labour* appears as the property of capital. This second law of bourgeois property, the inversion of the first -- which, through laws of inheritance etc., attains an existence independent of the accidental transitoriness of individual capitalists -- becomes just as established in law as the first. The first is the identity of labour with property; The first is the identity of labour with property; the second, labour as negated property, or property as negation of the alien quality of alien labour. In fact, in the production process of capital, as will be seen more closely in its further development, labour is a totality -- a combination of labours -- whose individual component parts are alien to one another, so that the overall process as a totality is not the work of the individual worker, and is furthermore the work of the different workers together only to the extent that they are [forcibly] combined, and do not [voluntarily] enter into combination with one another. The combination of this labour appears just as subservient to and led by an alien will and an alien intelligence -- having its *animating unity* elsewhere -- as its material unity appears subordinate to the *objective unity* of the *machinery*, of fixed capital, which, as *animated monster*, objectifies the scientific idea, and is in fact the coordinator, does not in any way relate to the individual worker as his instrument; but rather he himself exists as an animated individual punctuation mark, as its living isolated accessory . . . Hence, just as the worker relates to the product of his labour as an alien thing, so does he relate to the combination of labour as an alien combination, as well as to his own labour as an expression of his life, which, although it belongs to him, is alien to him and coerced from him." (p 470)

"Hence, by virtue of having acquired labour capacity in exchange as an equivalent, capital has acquired labour time -- to the extent that it exceeds the labour time contained in labour capacity -- in exchange *without equivalent*; it has appropriated alien labour time *without exchange* by means of the form of exchange . . . the worker receives the equivalent of the labour time objectified in him, and gives his value-creating, value-increasing living labour time. He sells himself as an effect. He is absorbed into the body of

capital as a cause, as activity. Thus the exchange turns into its opposite, and the laws of private property . . . turn into the worker's propertylessness, and the dispossession [*Entäusserung*] of his labour, [i.e.] the fact that he relates to it as alien property and vice versa." (p 674)

Capital

"On the other hand, the labourer, on quitting the process, is what he was on entering it, a source of wealth, but devoid of all means of making that wealth his own. Since, before entering on the process, his own labour has already been alienated from himself by the sale of his labour-power, has been appropriated by the capitalist and incorporated with capital, it must, during the process, be realised in a product that does not belong to him. Since the process of production is also the process by which the capitalist consumes labour-power, the product of the labourer is incessantly converted, not only into commodities, but into capital, into value that sucks up the value-creating power, into means of subsistence that buy the person of the labourer, into means of production that command the producers. The labourer therefore constantly produces material, objective wealth, but in the form of capital, of an alien power that dominates and exploits him; and the capitalist as constantly produces labour-power, but in the form of a subjective source of wealth, separated from the objects in and by which it can alone be realised; in short he produces the labourer, but as a wage labourer. This incessant reproduction, this perpetuation of the labourer, is the sine qua non of capitalist production." (p 571)

Holy Family

"The propertied class and the class of the proletariat present the same human self-estrangement. But the former class feels at ease and strengthened in this self-estrangement, it recognizes estrangement as *its own power* and has in it the *semblance* of a human existence. The class of the proletariat feels annihilated in estrangement; it sees in it its own powerlessness and the reality of an inhuman existence. It is, to use an expression of Hegel, in its abasement the indignation at that abasement, an *indignation* to which it is necessarily driven by the contradiction between its human nature and its condition of life, which is the outright, resolute and comprehensive negation of that nature. Holy Family or Critique of Critical Criticism. Against Bruno Bauer and Company.
<http://www.marxists.org/archive/marx/works/1840/holy-fam/hf04.htm>

ⁱ An interesting set of comments here. Makes it clear that current approaches to ethics lapses into a relativist problem. There is a need for an approach that can provide an analytical framework applicable to a wide variety of contexts. The problems appear to be common. Using theories of alienation can provide such an approach.