Gender, age and technology: a feminist analysis of older women learning the Internet

Thesis

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GENDER, AGE AND TECHNOLOGY:

A FEMINIST ANALYSIS OF

OLDER WOMEN LEARNING THE INTERNET

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R6320043

Submitted to the Open University in fulfilment of the requirements for the degree of Doctor of Education (EdD)

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ABSTRACT

This report explores the perceptions of retired women who have chosen to learn to use the Internet from a professional tutor. This qualitative study interprets these perceptions using a grounded approach within the perspective of feminist epistemology. The focus on retired women informs theory on a group of lifelong learners who have not been widely studied within either educational research or feminism. Where there has been feminist research into gender and technology the imperatives have related to the public domains of compulsory education or workplace training.

Using three research questions, this research enquires into what motivates older women learners to challenge the stereotype of the young, male Internet user, whether they find the course that they have chosen to be suitable for their requirements and what, if any, difference they perceive the skill will make to their lives. Data were collected by semi-structured interviews with students and tutors and supplemented by background information from college staff and fliers. My own research diary supported a reflexive approach and biographical details of the respondents added context to the central enquiries.

Several themes emerged from the data which related the concepts of age and gender to this particular aspect of technological education. This diverse group of middle class women revealed varied motivations for using the Internet, reflecting a common determination to avoid the social exclusion which they felt would be the fate of technologically illiterate elderly people in the twenty-first century. Their experience of learning foregrounds lack of self confidence, learning computer terminology and physical health issues as problems of age as well as gender. It was difficult to establish impact in a short-term study, but the criterion of a quality of life model was useful as a tool for analysis of the personal and social effects of being able to use the Internet.
This research has shown that retired women are willing and able to challenge age and gender stereotypes in order to use contemporary information and communication technology if they see it as relevant to their lives. Overall, the most significant conclusion was that this method of communication, while still unfamiliar, has been recognized by older women as a means to maintain their gendered identities into old age and has implications for the empowerment of other previously silent groups through the medium of the Internet.
STATEMENT

No part of this dissertation or the materials that accompany it have previously been submitted for a degree or other qualification to the Open University or any other university or institution.
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CHAPTER ONE
INTRODUCTION

This chapter sets out the rationale for the study leading to the research questions that were used to frame the interviews.

AIM OF THE STUDY
This research aims to explore the possibility that identity in old age may be re-negotiated through the desire and experience of learning a new and technical skill which appears to be against the grain of the social construction of old age as well as gender. It is intended to give a voice to post-working-age women learners, who are marginalized by both educational and feminist theory.

PERSONAL CONTEXT OF THE STUDY
This research brings together some of my greatest interests and fears. Fired by new wave feminism in the nineteen seventies, I made efforts through adult education to construct a different “me”. I suddenly became aware that I had, in fact, been happily socially constructed throughout my childhood, playing with dolls, wearing frocks, not liking maths or science and aspiring to be a secretary, to get married and have children.

In my early twenties, I had achieved a position of Secretary in an Institute of Technology, and found that I was from a different and lesser world, qualified only to type the reports and correspondence of an educated body of men and I discovered that it was not enough. Building on a handful of ‘O’ levels, I left University five years later with a degree in Social Administration and worked for an Old People’s charity for three years, observing social issues concerned with the process of ageing and the lack of homogeneity among older people.

In the early nineteen nineties, I became aware of computers and the Internet through my son, then aged around ten. I watched in amazement as he was
able to learn and use first a computer and then the Internet, without apparently being taught, while I struggled to remember even basic skills, despite the fact that I was a touch typist. Accordingly, I attended an Internet day school. It was run by two slick young men whose attitude was one of patronising sympathy for a group of middle aged women who were barely able to keep up with them. This experience deterred me from learning more, reminding me of the feeling of helpless exclusion in the Science classes at school, and I did not wish to repeat the experience.

Over the years I have painstakingly built a still very limited knowledge of computers and make use of the Internet, only when I really need to email or know something. When I discovered, by chance, that the daytime Internet classes at the local adult centre were oversubscribed by retired women I became interested to know how their own backgrounds and interests had motivated them to attend a course and whether their experiences would empower or discourage them. I wondered if they were similar to or different from each other, perhaps all being women with some prior affinity to science or technology, or whether they were competent secretaries, with keyboard skills already. I wondered if they were “young old” women, widows with no man to help them and whether they were middle class.

An awareness of feminist theories on women and science led me to wonder how they could be applied to these women, who appeared to be stepping out of their age and gender stereotype. Seen as flower arrangers and patchwork quilters by adult educators, they appeared to be undertaking what I considered to be quite a challenging and self-motivated enterprise. I decided to locate my research within feminist epistemology (See Chapter Two) in order to examine the influence of individual power and agency in the context of feminist theories of social construction and essentialist approaches to science. Within this epistemological framework I felt that a grounded theory approach, involving semi-structured interviews, would allow me freedom to examine the emerging data.

I have used the research component of the two Masters’ Modules, which form the basis of this Doctorate, to undertake two pieces of research. For my core module I studied the gendered use of computer technology by
sixteen year olds working towards the GCSE in information and communications technology (ICT), finding the girls fewer in numbers and less confident. My other piece of research was into the group experience of women on an Assertiveness Course, which I tutored locally. My conclusion was that women enjoy and benefit from a group learning experience in ways which are not statistically quantifiable (Ashcroft, 2000).

Tutoring for the Open University has given me another perspective on adult education, allowing personal reflections over a number of years on gender, age, class and other issues which have influenced my own reflexive position in this research.

I established three research questions in order to shape the research and provide a springboard for wider enquiries

RESEARCH QUESTIONS

1. What motivates older women to formally learn to use the Internet, in relation to experience of age and gender?

2. How can feminist epistemology inform an understanding of the experience of older women learning to use the Internet through formal teaching?

3. In what ways do women perceive the personal impact of learning the Internet in relation to their sense of gender and age identity?

RATIONALE FOR THE RESEARCH

This research aims to add to knowledge about education as it relates to older women learning to use an aspect of computer technology by showing how a specific age and gender group of learners attempts to become computer literate Internet users. Some research projects into older learners have noted
gender differences within technology, notably the Department for Education and Employment (DfEE, 1998), and the National Institute of Adult Continuing Education (NIACE, 2001). My research seeks to add to this knowledge and inform theory, practice and policy by using feminist epistemology and a grounded theory approach.

As computer technology becomes more accepted as a part of everyday life and a significant means of communication, older people may gradually become excluded from the means of maintaining an independent life. As increasing numbers of computer literate people reach retirement, this group should become less, but at this historical moment, there is a technological generation gap where grandparents know less than their primary school age grandchildren.

Educational research has shown that fewer girls and women than boys and men are confident with and have careers in science and technology (Margolis and Fisher, 2002). Women in retirement, who may have only a basic relationship with technology are now faced with the prospect of filling this gap in their knowledge by their own endeavours or risk future exclusion from their families or from society itself. Consequently, if providers of adult education are made aware of the voices of these older generations with respect to the learning of technology, they may respond by offering more and varied provision, acknowledging the influence of gender and age.
A FEMINIST WAY OF KNOWING

It is necessary to establish that feminist epistemology underlies this research, prior to a discussion of methodology in Chapter Four. Epistemology may be taken to mean a theory of knowledge of the external world (Abercrombie et al., 2000). Feminist thought broadly rejects the philosophy that science and reason may be used to explain the social world (positivism) seeing it as a patriarchal discourse which represses women and perpetuates gender inequality. Feminist epistemology is described by Humm (1995) as a “distinct realm of concepts” which inform “an understanding of women’s lives and minds” which underpins feminist theories.

To place feminism in an historical context, Wollstonecraft’s “A Vindication of the Rights of Woman”, published in 1791, was the first statement of women’s oppression through lack of educational opportunity. The period we know as Modernity was founded on the Enlightenment principles of science and reason, which formed a structural metanarrative to explain the process of industrialization and its impact on the world. The “truths” established by this male dominated grand theory included dichotomies which placed women as the opposite of men and in a supporting role, as masculine reason was seen as sound, so feminine emotions were regarded as a disqualification from positions of power. However, by the late nineteenth century, women became organized in order to seek enfranchisement and subsequently economic, legal and personal rights. Liberal feminists fought battles for formal, public equality maintaining differences in gendered power to be social constructs. Radical and socialist feminist ideology celebrated gender difference, advocating a woman-centred culture, at least partly separate from that of men (essentialism). More recently, postmodernism and poststructuralism have sought to deconstruct structural categories by looking instead at individual identities and the power of
discourse, blurring the boundaries of the social structures established by modernity.

These feminist positions (liberal, radical/socialist and postmodern) divide women politically and ideologically because the first, liberal feminism, appears to accept patriarchal structures and the second, radical feminism, takes a biological reductionist view (essentialism) seeking revolution or separatism. Socialist feminism, however, while seeing the importance of radical principles, recognizes the need for some engagement with men.

Although postmodernism and poststructuralist theories of discourse have been used by feminism to challenge the validity of structural inequalities, feminist writers have observed that they may be manipulated to jeopardise the legitimacy of a gender dichotomy, upon which feminist theory has been founded (Jackson, 1992; Lown 1995). This problem is epitomized by the debate about the relationship of women to the discourse of science and technology, which underpins modernity and through which feminists such as Harding (1992a, 1992b) and Fox Keller (1992), saw as the voice of patriarchal dominance over women. Harding’s challenge to the fundamental categories of both science and knowledge saw them as male-biased thought, suggesting three main feminist epistemologies; feminist empiricism (a Liberal approach), feminist standpoint (a radical approach) and feminist postmodernism.

Feminist empiricists believe that unbiased results may be produced by rigorous scientific method, regardless of personal identity (Harding, 1992a). Standpoint or "successor science", however, claims that "the scientific enterprise is structurally and symbolically part and parcel of the value systems that maintain it, i.e. those of men" (Harding, 1992a, p.344). This viewpoint further claims that women are more able to be objective; "women’s subjugated position provides the possibility of more complete and less perverse understandings.” (Harding, 1987, p.26). Harding’s third position, feminist post-modernism, is one which combines the post-modern rejection of a totalizing feminism but which needs to maintain some degree of essentialism in order to retain “woman”. She asks the question: “How
can feminism radically re-define the relationship between knowledge and power if it creates yet another epistemology, yet another set of rules for the policing of thought?" (Harding, 1992a, p.347).

The concept of a "feminist standpoint" also presents a problem for Stanley and Wise (1990) in that it still assumes a "truth" which is independent of the knower and suggests the danger of setting up a single, alternative, hegemonic feminist discourse. While not disputing the existence of a material "truth", judgements about it are always related to the context in which knowledge has been established. They argue for a "deconstructed and reconstructed feminist standpoint epistemology" which rejects Harding's "successor science" but promotes instead a feminist pluralism, encompassing several feminist standpoints. This feminist way of understanding gender relations and gendered identities is more recognizable as postmodern than modern, as it recognizes that language is not neutral and that meanings and the self are not fixed (Flax, 1995).

It would seem, therefore, that reliance on a single "grand theory" structural approach such as biology, sociology, psychology, or patriarchal oppression to explain the position of women limits and divides feminism. It seems more convincing that women (and men) are subject to all these social structures and to the power of discourses which operate at a cultural level but also that they may subvert or seek to change their situation either individually or collectively. However, by acknowledging the agency of women to challenge their gendered social construction, and to recognize differences between women, the feminist project has stopped short of deconstructing all "categories" as this would necessarily include those of male and female, denying commonality between women as a collective sex/gender group with a feminine subjectivity. This would lead ultimately to epistemological relativism in which there are as many truths as individual people and would mean abandoning gender as a way of differentiating between groups. This may subsume women's voices into the dominant discourse and undermine any political agenda in terms of structural gender inequality. (Modleski, 1991; Jackson, 1992).
Feminist poststructuralism, as a perspective of feminist postmodernism, admits the influence of social structures on the individual and is concerned with the discursive process by which this happens, while recognizing the subjectivity and agency of the individual to resist and challenge forms of power (Fraser, 1989). Ryan observes: “Feminist poststructuralism emphasises the importance of making choices and taking action, however flawed or imperfect they may be” (Ryan, 2001, p.10). In this way, poststructuralist feminism broadens and divides feminism into many voices, issues and priorities by emphasising the differences and inequalities between women, adding further diversity to the feminist agenda (Weiler, 1995). Flax points out the significance of structural inequalities among women in terms of power and agency:

“...we should avoid seeing women/ourselves as totally innocent, passive beings. Such a view prevents us from seeing the areas of life in which women have had an effect, in which we are less determined by the will of the other(s), and in which some of us have and do exert power over others (e.g. the differential privileges of race, class, sexual preference, age, or location in the world system).”

(Flax, 1995, p.154)

Ramazanoglu and Holland (2002) link politics, ethics and epistemology to feminist methodology but see postmodernist thought as creating a plurality of values which undermines any single feminist judgement on power relations and how to change them. They offer a solution by claiming that “feminist researchers can choose not to abandon investigation by knowing subjects of specific power relations...and can dispute claims that these are unknowable” (p. 103). They feel that although feminism must address postmodern theoretical questions, there is still a place for feminist research to confront the diversity of women’s everyday experiences.

My own research uses a structuralist approach which acknowledges the influence of social construction in creating gendered technology, but which also shows an awareness of feminist poststructuralist challenges in which
agency may lead to change and empowerment. Poststructuralist literature has been useful in explaining the plurality of discourses of technology and gender, helping me to identify the voices of older women as a diverse and marginalized group. I am, however, regarding the women's data as "truthful" evidence about their lived experiences rather than analysing their language construction in order to identify hidden meanings.

Research based on the experiences of women has often assumed that the subjects' own voices will give honest and objective answers to sympathetic questions. However, if notions of truth are socially influenced this means that "feminist method needs to interpret experience, not just describe it" in order to establish meaningful theory (Ryan, 2001, p.74). This raises the question of the nature of the interpretation. In order to interpret women's answers to questions, a reflexive feminist perspective acknowledges the influence of discourse on both the researcher and the researched. Middleton (1993) claims that researchers need to recognize that they are inside the social and/or educational phenomena which they are studying and that the political and theoretical dimensions of educational experience should be studied holistically. She rejects the master-narrative approach, "scientific accuracy" and truth of theories, describing her subjective position of constructing typologies as outside but not 'objective', "not a view 'from the skies' but .... a landscape drawn from my own perspective" (p.129). The researcher must be aware of his or her own position, whether as an insider or as an outside researcher in order to find this perspective.

By locating myself in the research, I am endeavouiring to recognize the positionality of the researcher in the interview process (See Chapter 1) and in the interpretation of the data (Extract from Research Diary, Appendix X). I have compared two case studies which illustrate the differences and similarities between two women apparently linked by gender, age, social class and experience. I have used a feminist perspective to interpret this data but acknowledge my own, situated viewpoint.
RELATIONSHIP OF FEMINIST EPISTEMOLOGY TO THIS RESEARCH

The concepts of empowerment, subjectivity, identity and agency are all concepts which are central to a feminist interpretation of this research. Humm (1995) defines empowerment in the feminist sense as “an enabling power to do something rather than a power over someone”. It is in this sense that the word is used in this research, in order to relate the personal choice of a group of older women to learn to use the Internet to wider issues of empowerment for all women.

Feminism rests on the understanding that there is a feminine subjectivity and identity which relate to gendered lives. Subjectivity includes a sense of self, made up from conscious emotions and our unconscious recognition of who we are. Identity is the social position that we take up, within a discourse, which often reflects the opinions of others. Despite the pessimistic view of Mani (1992) that “the free will of an autonomous self” is not realistic within the constraints of hegemony claiming an identity which has not been dictated from a male perspective but which has been seen as an act of empowerment for women and part of the political agenda for feminism. However, the concept of identity is shaped by outside forces and this has meant that feminism has had to acknowledge that because women do not share the same experiences and relationship to power they may oppress and exclude each other (Holland and Ramazanoglu, 1995). Their values and aspirations are, therefore, diverse and sometimes in conflict due to other social divisions such as ethnicity, social class and age.

There is no specific age at which one becomes old and identification as an old woman is subjective, and may reflect in the negative stereotypes of others. The gendered identity of “old woman” may not be one which women wish to claim at any age and which they may often deny to others and to themselves. If younger women exclude older women from feminist issues because they are afraid of becoming “dull, stupid, ugly, worthless” themselves (Rich, 1992) and if older women are made to feel that they must deny their age, each generation of old women will be colluding in their own
exclusion, rendering themselves invisible and remaining powerless. However, if women are able to actively negotiate their subject positions (within discursive constraints) they may be able to challenge this negative stereotype of "old age".

In this research, the agency of older women to do something which is new and unfamiliar and which is not associated with their age and gender is seen in the context of the (gendered) choices available to them. Feminism has gained political strength through its claim that women have been oppressed by men. However, the image of women as victims of male dominated social structures has needed to avoid representing women as passive beings with no prospect of changing their lives, and to see them instead as active in the construction of their own subject positions (Ormrod, 1995).

My method grounds theory in the research but will use a critical feminist stance, which acknowledges feminist issues and debates. This view is similar to that of Lather, (1991) who discusses feminist research in a postpositivist era which she sees as fostering a critical social science with an openly emancipatory intent. Instead of trying to achieve an impossible "value freedom" she sees knowledge as embedded in the social and historical and in the values which positivism tried so hard to neutralise. She advocates a praxis approach where "not only must theory illuminate the lived experience of progressive social groups; it must also be illuminated by their struggles" (p.53). By taking a reflexive approach, I locate myself within this research and acknowledge my own age and gendered perspective.

Qualitative methodology, including semi-structured interviews and focused biographical reflections provide a depth through which to offer a reflexive, feminist interpretation of their responses to questions about their motivations, experience and impact of the course and the Internet itself on their lives. The synthesis of this data leads to theory grounded within the epistemology of feminism, recognizing that "No feminist study can be politically neutral, completely inductive or solely based in grounded theory. This is a contradiction in terms" (Maynard, 1996, p.17).
Bearing this in mind, this interpretation of the perceptions and educational experience of a group embodies the merged concepts of gender and age and considers the similarities and differences within the group and how they relate to an aspect of adult education which feminism sees as based on a masculine project and which has masculine connotations and a masculine discourse.

This research also has implications for the wider debate about whether society shapes or is shaped by technology (Mackay et al., 2001). For feminists, this means locating women within the debate by examining their relationship to the dominant discourses within which we understand gender, age and technology. Older women have been silent on the subject of their relationship with new technology and it is acknowledgement of the silences as well as the voices which will inform and be informed by this research. It is hoped that this educational research will:

“produce with [women] new positions in emancipatory discourses, which are available for take-up by all of us. In this way we have a central role to play in the emergence of new knowledges and thus in social change itself.”

(Ryan, 2001, p. 154)
CHAPTER THREE
LITERATURE REVIEW

INTRODUCTION

This review brings together literature which informs my enquiries into the relationship of older women with computer technology. The review is divided into three sections which relate the key concept of gender, firstly to the debates on the discourse of science and technology which have been introduced as a key issue of feminist epistemology in Chapter Two. Secondly to adult education as a means of emancipation and thirdly to research which brings these together to discuss the empowerment of older women through using the Internet. The first section builds on the feminist theories of gender and science and technology, on which Research Question One rests. The second section summarises mainly feminist research which contributes to an understanding of the women as learners, informing Research Question Two. It is in this third section that gendered science and technology education is related to the impact of learning to use computers and sees them as a component of leisure time for older women and as part of the cultural discourse (Research Question Three). However, these three sections are organized around the main concepts underlying the research rather than the research questions specifically, and inform the themes of all three research questions, motivation for enrolment, experience of education and impact of learning.

I have focused mainly on feminist qualitative research (see Chapter Two - Feminist Epistemology) although acknowledgement is given to quantitative and psychological measurements of learning. My research views the older women interviewed as women whose positionality reflects not only their gendered socially constructed pasts but also their potential for an empowered future. Their interest in learning the Internet is indicative of the wider issues that influence the quality of their lives.
FEMINIST PEDAGOGY AND THE DISCOURSE OF SCIENCE AND TECHNOLOGY

This section shapes the concepts described in Chapter Two to show how feminists have identified the role of social construction through gendered education in the exclusion of women from the key discourses of industrialisation. This section outlines the feminist position that science and technology have evolved as part of a masculine discourse which has perpetuated male dominance in these fields and fostered a culture of inferiority in girls and women. These feminist perspectives inform my interpretation of the background relationship between the respondents and technology and also an understanding of the feelings which have motivated them towards learning the Internet (Research Question One).

Although women’s rights campaigners had successfully argued that girls needed formal education by the nineteenth century, disagreement on the objective of this divided feminists. The question arose as to whether the aim was to achieve equality for women within the established education system or whether women/girls needed to learn differently and separately from men/boys. This division is embodied in the two main feminist groups of liberal and radical feminists and in competing theories on equality and difference (see Chapter Two – Feminist epistemology).

The study of natural sciences is one which highlights this epistemological conflict within feminism and symbolizes the conflict between "ways of knowing". The development of scientific knowledge during the Enlightenment heralded the birth of Modernity and legitimated the scientific and empirical explanation of a rapidly industrialising Western world. The leading theorists were male and the work of women in scientific research was, with a few notable exceptions, forced into a supporting role, as illustrated by Joan Mason's research into the life of Hertha Ayrton (Mason, 1992, pp.169-178).

Deem (1993) proposes that the post war education policies of the 1940s, 1950s and 1960s still reflected nineteenth century patriarchal family values,
defining boys as future breadwinners and girls as homemakers and teaching them accordingly. She cites the Crowther Report (1959) and the Robbins Report (1963) as assuming that the gendered curricula which supported this ideology were based on "natural" differences between sexes in terms of temperament and interest. Science and technology subjects were seen to appeal to boys and girls "in different ways and for different reasons" (Deem, op cit. p.37); boys because they were thought to have naturally enquiring minds and girls because they would need to operate machines. Such "natural" segregation of curricula was thus seen as normal and acceptable, while perpetuating gender inequality for the benefit of a patriarchal, capitalist society (Dawtrey et al., 1995).

The social construction of a gendered relationship with science/technology is a theory which informs this research both in terms of what is learned and how it is learned. Research has mainly focused on the acquisition of gendered identity in childhood, which may encourage or exclude certain subject choices. Browne and Ross (1991) have studied the perceived gender domains of infant children, claiming that the children in their research had already formed socially influenced gendered views of science and technology before starting school. Kelly (1987) also discusses the social factors relating to older children at school. She concludes that when boys and girls are taught science subjects together, the boys commandeer the apparatus, while the girls prefer to interact with the teacher. She sees girls who are successful at science as being almost exclusively middle class, who can construct a meaningful relationship between science and their own self image. She saw teachers as reinforcing gender stereotypes by trying to make science relevant to both genders. Although this research is nearly twenty years old now, it is supported by more recent studies.

Murphy and Elwood's (1998) research into school children also suggests that social influences, together with socio-economic influences, lead to gendered experiences which affect the confidence to develop interests. They discovered that boys typically benefited from school experiences which helped them to be confident in science and technology lessons. Girls, on the other hand, appeared to be less confident and to be consequently seen
as less able by the teacher. This judgement of ability in turn influenced the performance of the children. Their conclusion was that gendered identities are influenced by teachers' and others' (gendered) perceptions and judgements and this is reflected in subject selection, exam results and subsequently career choice.

This contradicts the earlier view of Honeyford (1990) who, writing from the perspective of the Thatcherite New Right era, denied any discrimination against girls in education and blamed the unnecessary presence of a feminist agenda in education on “the campaigning antics of a handful of highly untypical, radical females of the 1960s who created effective pressure groups and generated appropriate propaganda” (p.9). However, his article refers only to a superficial equality of opportunity and not to the surrounding social conditions which impact on career aspirations. The enduring power of established norms is reiterated by Paechter (1998) who observed that girls are still being encouraged into the caring, servicing role that was expected of them in the nineteenth and twentieth centuries, suggesting that a belief in essential gender differences still exists, which is still being supported by social construction. This debate has continued with the introduction of ICT into the school curriculum and into the sphere of adult learning. Stepulevage (2001) reiterates claims that a heterosexual discourse still leads to the social construction of “technological incompetence” by girls in mixed school classes (p.325).

Cockburn and Furst-Dilic (1994) describe this hegemonic position in the adult world, claiming that the relationship between gender and technology impacts on gendered power. In a Europe-wide research programme, they saw inequalities of power becoming acceptable so that women collude in stereotyping themselves as naturally unsuited to some types of technical work in computer science and aspire to lower status positions. They concluded that design and maintenance of (domestic) technology is carried out by men with women seen only as passive consumers, observing that technological awareness is generally seen to be male, exciting and of high value, while domesticity is seen as female, dull and of low value.
Feminist theorists have been divided on the problematic relationship between girls/women and science subjects. Their differing perspectives of liberal and radical feminism suggested that this should be tackled in different ways, rooted in theories of social construction and essentialism respectively (Harding, 1992a, 1992b, Fox Keller, 1992). Liberal feminists believed that women's historical exclusion from science on all significant levels may be blamed on socially constructed patriarchal definitions of gender roles, while radical feminists believed that an essential difference between men and women made it difficult for women to understand "men's" science. (See Chapter Two – Feminist Epistemology). The Conservative New Right ideology of the 1980s and early 1990s produced a further divergence between feminists who welcomed the advances made by white middle class girls and those who could see no similar progress for the working class and ethnic minority girls (Mirza 1995). Feminist debates of the late twentieth century proposed radical solutions such as changing science itself to become more "woman friendly" or changing women's access to the science that already exists (Harding, 1986; Kirkup and Smith Keller, 1992; and Maynard, 1996).

Women have struggled to gain acceptance within male dominated professions but their position in relation to science is still contested by feminists. Fox Keller and Longino (1996) observe that although science itself may be neutral, the interpretation of it has been influenced by social forces. They claim that a feminist critique of science must address the male bias that has led to the historical formation of the science project. Theoretical equality of access to science education does not, therefore, eliminate the problem of the "hidden curriculum" where assumptions and cultural stereotypes reinforce broader gender stereotypes which guide children towards or away from certain school subjects (Whitelegg, 1992; Murphy and Elwood, 1998).

This widening of the women and science narrative is seen from a postmodern perspective by Clegg (2001) who calls for a multidisciplinary approach to the construction of gendered meanings in technology in order to examine wider influences. Henwood and Miller (2001) criticize the
conceptualization of gender and science/technology as closed “black boxes” with no space for seeing either as active processes. The opening up of science-related identities beyond gender is also addressed by Hughes (2001) who points out the dangers of essentialism, offering the poststructuralist view that gender is just one position from which to accept or reject science. My research explores a gendered lifestage position where learning to use technology in later life may encourage the growth of a “scientist identity” (p.287), despite its possible rejection in childhood and negative reinforcement throughout adult working life.

Feminists argue that a male discourse of science and technology is instrumental in encouraging boys and discouraging girls by the use of language with male connotations. The language of computing is seen by some to symbolise this, reflecting the role of the (male dominated) American military in its development through the use of such words as “crash” and “boot” (Kirkup, 1992; Scott et al., 2001). Furthermore, the predominance of the US in terms of control of computer hardware and software has led to what McKie (2000) describes as “network colonialism rooted in the dominance of ‘Californian ideology’”, which is disempowering for those unfamiliar with it (See “Teaching the Internet – Tutors’ Perspectives” in Chapter Six, and also Appendix II).

This may be seen as a further stage in a gendered relationship to the discourse of science and technology. Lowe Benston (1992) claims that the language of technology is one in which women are silent. Basing her work on that of Spender and Gilligan in the early 1980s, she sees men as the self appointed authorities of the scientific world, with control over the vocabulary and the education which explains it. Women are excluded and powerless in this world, in which “both men and women lose the chance to develop a technology that would serve other goals than those of a small group of privileged white men” (p.41). She claims that patriarchal dominance of its language leads to women feeling positioned as "other" and having difficulty relating to a domain which they feel is not "speaking their language" (Lowe Benston, 1995, pp.33-42).
Although the Internet may be seen as a danger to the principles of feminist educational emancipation advocated in the 1970s, in terms of the wider empowerment for diverse groups of women worldwide, the Internet provides a global forum where interactive information and consciousness-raising is both supportive and politically expedient. This is reinforced by the availability online of recommendations from the 1999 Conference of the Older Women's Network, Europe (OWN 1999) encouraging older women to participate in its work, exchanging ideas via an online conference.

Research into the gendered learning of computer technology has recognized some of the constraints which deter women. At the same time as my research was taking place (2002-2003), a qualitative European project assessing strategies of inclusion for women in ICT, funded by the Information Society Technologies Programme (IST/SIGIS 2003), concluded that three factors seem crucial for women to be included in the information age:

- Resources
- Skills and knowledge
- That women see computers and the Internet as relevant to their lives

They further note that women's lack of confidence with computers is related to their wider problematic relationship with technology. They recommend that the image of ICTs needs to change in order that women may feel included and comfortable as users. Involving them at the design stage for software may change the discourse to a more gender-neutral one where women may see the Internet as a source of pleasure.

Research into the gendered access to resources and acquisition of ICT skills has, however, been mainly in the sphere of compulsory education. Interdisciplinary research into learning has focused on apparent gender difference in aptitude for school subjects both within the natural and social spheres (Paechter, 1998, Murphy and Elwood, 1998). Cognitive tests into biological and physiological brain structure, however, remain inconclusive and this type of research has been criticized as being unable to exclude
social and cultural experiences and the variety and capacity of the human brain to change and adapt (Birke, 1992).

A bridge between the natural and the social is offered by psycho-social research. Gendered psycho-social differences have been extensively studied, in women, by Turkle (1984) who used interviews and observation to examine styles of thinking with regard to computers at work. She put forward an essentialist argument which she grounded in her own empirical research dating back to the early 1970s. Turkle found that many women were alienated from the computer because its culture imposes a particular "correct" style of interaction, based on a formal method of working. She suggested that women would feel more comfortable with a relational, interactive and connected approach to objects, and men with a more distanced stance.

Her later research (Turkle, 1995) however, concluded that technological climate is becoming more "informalist" for those who are more comfortable with "harpsichords rather than hammers" as tools to work with. She pointed out that the hegemony of the rigorous, mathematical male dominated approach has relaxed to accommodate the more feminine "time honoured tradition of tinkering" and softer "bricolage" method. Her view, developed over two decades of involvement with human/computer relationships, is that:

"A classical modernist vision of computer intelligence has made room for a romantic postmodern one. At this juncture, there is potential for a more welcoming environment for women, humanists, and artists in the technical culture."

(Turkle, 1995, p.63)

This suggestion of a more inclusive "technological climate" sounds encouraging, but it must be noted that Turkle's work is mainly with children and younger, computer-literate people in American universities. These students are likely to benefit by proximity to research on gender and
subsequent development of curricula. Local adult education classes are likely to be slower to change. Her work on identity and the Internet does, nevertheless, inform theories of gendered differences in the relationship with technology and has been used by radical feminist educators concerned with developing gendered teaching styles.

Other research takes Turkle's tentative steps towards a postmodern approach further, relating feminist postmodernism to women and the Internet, and problematizing essentialist theories on gender and science/technology (see next section on Internet and Gender). One piece of research into American University students, however, suggests that women are still "out of the loop" in computing. Margolis and Fisher (2002) found that in a project to encourage young women to be programmers, they often felt lost and unsupported. They compared themselves unfavourably to male students who they saw as representing the archetypal computer student, passionate and able to cope easily with the work (Margolis and Fisher, 2002, p.82-87). This lack of confidence in mixed gender classes supports studies of children, where the boys dominated (Kelly, 1987; Murphy and Elwood 1998).

The narrative of women and the Internet has been traced by Scott et al., (2001) who identify three chronological stages. The first they see as the "webbed Utopia", when women optimistically saw the Internet as a feminist opportunity, the second, when they realised that it was in fact a dangerous, male dominated environment where women were objectified and victimised. The third, where they became "locked into locality", excluded from "cyberspace" (Gibson, 1984). My research challenges the third stage of this narrative, by examining the agency of women to transcend the limitations of "locality" and to find a place for technology within the context of their lives.

The relationship between women and girls and the Internet may still be fluctuating between these three stages, which may influence how they see ICT as part of work or play. Research supports the view that women and girls engage less than men and boys with the Internet as a recreational toy.
In some earlier research, I found that girls studying GCSE Computer Studies chose to learn ICT in order to word process essays in other subjects (i.e. Further and Higher Education requirements) or because they wanted to become secretaries, rather than because of aspirations to study computers at a higher level (Ashcroft, 1999). Neither did they see computers (or the Internet) as a “toy” in the same way as the boys, spending little leisure time on the Internet. Littleton and Yates (2001) link this to a gendered subject position with respect to Internet technology. They argue that playing computer games takes place in cultural niches where the gamer feels part of the discourse and identifies with the gaming culture. As the culture of computer games is still male dominated, women and girls are less likely to identify with it and feel comfortable enough to see computers as part of their leisure and cultural discourse, seeing it instead as a practical tool (See Chapter Seven - Conclusions and recommendations).

Despite the fact that women are the chief users of ICT in the workplace, Clegg (2001) points to the lack of research into gender issues and the Internet. She calls for a connection to be made between education and women’s continued oppression in a gendered discourse of technology.

Despite the range of possible levels of computer skills, however, computerisation has not transformed the status of women’s paid work. With regard to Policy and funding interest for women’s Information and Communication Technology (ICT) education, the focus has been on minimum requirements for work. Although government funding has prioritised younger women in an attempt to equip or retrain them in ICT skills, women’s work with ICT has been as operators rather than developers. The level of skill required has been determined by post-industrial employment priorities and gender stereotypes, which has meant that their ICT skills have not elevated them above low paid clerical “women’s work” (Stepulevage, 2001). Butcher et al. (2000) point out that only 18% of the beneficiaries of “recent” European Social Fund Objective 4 funding for upskilling low paid workers were women. They further suggest that funding for women is getting more difficult as “the agenda for inclusion and lifelong learning sees gender equality as largely achieved” (p.20). Older
women workers seem unlikely, therefore, to be the recipients of funded ICT training, suggesting that women who are retired now may not have had more than a basic, formal, working relationship with computers and not in such a way as to encourage confident or comfortable interaction which could be regarded as technological literacy (See Chapter Seven – Conclusions and recommendations).

The importance of technological literacy in the twenty-first century is seen by many to be a priority for the twenty first century citizen. However, access to the hardware, software and skills required is not freely available. Au and Raphael (2000) argue that this is fast becoming a means of social exclusion for some because access to technology privileges the young, notably white, middle class males who can afford the hardware and may be taught the use of the software at school or work.

For other social groups, such as retired women, as studied in my research, a degree of personal agency and the ability to finance themselves is necessary, together with accessible courses. In order for this to take place, such people need to see the potential value to their lives of technological literacy (Research Question One), they need to be able to learn the skills (Research Question Two), and to perceive some benefits from that learning (Research Question Three). Selwyn (2002) sees a "digital divide" emerging, not just related to access to formal ICT training but based around "a complex mixture of social, psychological, economic and, above all, pragmatic reasons", i.e. its relevance to the individual (p.25). Mansell (2002) points out that citizens will not become empowered simply by being connected to the Internet but need to be able to assess the "value, truth and reliability of digital information". For older people, whose lives revolve around leisure rather than work priorities, the usefulness of the Internet would be most evident in its social applications. By observing its value in the domestic, family setting, older people may be able to judge its value to them personally and see it as part of the texture of their everyday lives.

ICT needs to have a purpose in gendered everyday personal lives for girls and women who, it has been observed earlier in this chapter, do not see
the computer as a toy (Littleton and Yates, 2001). Green (2001) regrets that there has been little research into the everyday use of personal computer as it relates to leisure use by women. She summarises the range of research into gender and technology as being mostly related to questions about the masculine nature of technology and empowerment questions, making the point that it is not until the computer is seen as a normal part of everyday life that its impact on gendered family life can be seen.

Such research has focused on families with school-age children. (Silverstone and Morley, 1990; Mackay 1997, 2003; Silva, 2000). Silverstone and Morley (1990) relate gendered technologies to confidence. They note that the “mother” in the family, while being the only member of the family to use the washing machine, was unable to use the video and was frightened to use the computer. A study of media consumption in Wales, carried out by Mackay (2003), used a series of in depth interviews with ten households to explore the concepts of time and temporal rhythms, space and gender (following Morley, 1997). It was found that computers were all kept in marginal rooms where their use was seen as a solitary activity, unlike television. Email was used for contacting family but the Internet was not used for long time spans and users were afraid of credit card fraud and viruses. New media was bought and installed by men, with eight out of ten women unable to operate the video recorder or multichannel controls.

These were, however, all younger households with children who inevitably have different priorities to an older household. While acknowledging the importance of this research, my own interest lies with the impact of the Internet on the social and family lives of older women and upon gendered identities at a later lifestage which will contribute to wider feminist theory.

For most of the older women in my research their family role was an important part of their identity. Keeping in touch with family and friends by telephone is now part of everyday life but it is useful to compare its inception with that of the Internet. The telephone, like the Internet, was first developed for use in the male dominated military/business world but was
adapted for domestic use as women increasingly saw it as a way of extending the limitations of the private sphere (Frissen 1995).

Technology as a site for gender negotiation within the home has also been researched by Lohan (2001). She argues that technology within the home becomes gendered according to cultural associations, with the more complex or heavy equipment being seen as belonging to the male, the lighter and more simple being seen as for use by women. She argues that the telephone, being light and easy to use, has become easily associated with women, while not being fully transferred from work to the home environment by men. Combined with this, women tend to become responsible for family communication, while men prefer to opt out (Mackay, 1997). This research considers the possible parallel with the computer, as used for emailing and relates to Research Questions One and Three.

Moyal’s earlier Australian research, in 1992, into the culture of the telephone, concluded that women used the telephone more for maintaining family relationships than formally, and that they reported (by questionnaire) that they were able to speak more freely on the telephone than face to face. She related this to Australian family life, concluding that the telephone played a vital part in women’s social and family lives. More recently, Scott et al. (2001) recommend that the narrative of “women and the Internet” should be expanded to explore the motivation of women to remain “socially and politically effective in an information age” (p.20) by using other forms of information technology, such as the mobile phone.

My research suggests a similar role for email but enquires on a more personal level, asking older women directly about their perceptions of ICT within their own family lives. At this phase in the post-industrial world their ability to email may prevent them from being excluded and disempowered by isolation from physically distant family support systems, which may contribute to dependence on professional care providers.
This section considers the role of adult education in the emancipation of women and develops this to issues of older women ICT learners, linking all three research questions through the concept of learning.

The education of women as a means of emancipation (Research Question Two), has been recognized by feminist epistemology. A feminist pedagogy, which aims to change unequal gendered power relations through education has been located within competing feminist theories which have explained oppressive social structures using radical and liberal feminist perspectives (See Chapter 2 – Feminist Epistemology). The foundation for the recognition of adult education as a means to emancipation was laid by Friere (1971). His pioneering research showed it to be a means to freedom from class oppression in the patriarchal and socially divided South America of the 1960s. Although his research has been criticized for its gender blindness and must be seen in its historical and political context, the concept of a liberatory pedagogy greatly influenced the Western feminist agenda of the time (Benn et al., 1998). Feminism's political mandate has been to encourage an emancipatory pedagogy where women facilitate the freedom of other women from what it perceives as the false consciousness perpetuated by a patriarchal discourse.

In order to inform my second research question by using feminist epistemology to understand the learning experiences of my sample group of older women, I have gathered their critical reflections through semi-structured interviews (See Chapter Four – Choice of Methodology and Methods). The value of this is observed by Brookfield (2000), who notes the self reflective aspect of (ungendered) adult learning, allowing adults to balance the value of the learning experience to their needs.

Brookfield further concludes that group learning can help to place this reflectiveness in context, observing that learning in a peer group may "provide a safe haven in which adults in critical process can confirm they are not alone, and through which they can make sense of the changes they
are experiencing” (p.99). If age and gender are taken as concepts which can link people as a peer group, older women may gain confidence and benefit from the comfort of shared learning, suggestive of the principles of second wave feminist empowerment, which are discussed below.

Building confidence through collective support has been at the heart of the attempt by women to gain power through learning. The Liberal Feminist agenda encouraged them to gain the confidence and qualifications with which to compete with men in the employment market and the Radical Feminists aimed to challenge patriarchal oppression from a woman-centred perspective (Lown, 1995). Deem (1986) ties the social aspect of learning to the feminist agenda by pointing out that collective group support and consciousness-raising has encouraged women to both teach and learn together as a means of gaining power. However, lack of confidence may influence their choice of course. Often lacking the self confidence to join formal education and training and intimidated by assessed goals, McGivney (1993) suggests that some women may find courses labelled as “threshold" less threatening, leading to their greater presence in “beginners” classes rather than those at a higher level (See Chapter Seven – Conclusions and Recommendations).

Although postmodernists have challenged the solidarity of a feminist pedagogy as too rigid, they concede that language and knowledge are socially constructed (see Chapter Two). Feminists maintain that gender is significant in such social construction and some extend this to the language and knowledge base of computers and the Internet, seeing this construction as reflecting an exclusively male scientific discourse (Kirkup, 1992; Turkle, 1995). Feminist approaches to learning or changing this discourse in order to empower women inform my own enquiries. Although the women in my research do not claim to be feminists seeking emancipation, their gendered identities may nevertheless be influenced by learning this type of skill, which fits into the imperatives of their gendered retirement and the wider question of women's empowerment in later life.
Women as older learners are seen by my research as those who have ceased full-time paid work. However, in order to add the dimension of this older lifestage to the central concept of gender, it is necessary to establish a broad understanding of the characteristics and social labels which link the respondents in this way.

Retirement years span a period during which identities are, arguably, influenced by the shifting and changing criteria which influence a subjective sense of well-being but which others may need to conceptualise in objective terms. Life cycle analysis is still underdeveloped in the UK, and there is no commonly accepted group definition of the respondents in terms of gender and age, other than “older women”. Gender blind age labels in common media usage include “over 50s”, “Third Agers”, “Young Old” and “Older Adults” suggesting the active retired, with the political label “Grey Power” and “Senior Citizens” suggesting voting power. “Old People” and “Pensioners” suggest a sense of dependency, with expressions such as “Wrinklies” and “Old Folk” sounding derogatory or patronizing. Popular images of older people drawn from television comedies such as “One Foot in the Grave” and “Waiting for God” lampoon the stereotypical characteristics of ageing. For women, the demeaning although kindly label “Old Dear” is widely used, but the prefix “Old” nevertheless has connotations of declining value.

“Retirement” signifies a socially constructed life change to the possible detriment of a positive identity which may have rested on material and social usefulness. The Carnegie Inquiry offers a functional and optimistic definition, for their investigation into the social position of active older men and women:

“...the period of life when people emerge from the imperatives of earning a living and/or bringing up children and, without precedent in our society, are able to look forward to perhaps twenty or more years of healthy life.”

(Carnegie Inquiry, 1993, iii)
This is similar to the category of "entering old age" set out by the Department of Health in its policy document "National Service Framework for Older People" (2001) as:

"...people who have completed their career in paid employment and/or child rearing. This is a socially-constructed definition of old age, which, according to different interpretations, includes people as young as 50, or from the official retirement ages of 60 for women and 65 for men. These people are active and independent and many remain so into late old age."

(Dept. of Health, 2001, p.3)

Both these definitions suggest an idyllic period of good health with no responsibilities. However, for women especially, unpaid domestic work and childcare often extend into retirement through looking after grandchildren. The latter may, however, have a positive effect on their gendered identity and attitude towards their own learning through their awareness of the educational priorities of younger family members (See data in Chapter Six).

The motivation for adults to learn for their own interest, outside the compulsory education system and the imperatives of work-related incentives, involves the free will of the learner to engage with a subject. Existing work on the (gender and age blind) motivation of adults to learn has provided a framework for my own examination of data (Research Question One).

McGivney (1993) outlines various theories, outlining a composite list of motives, drawing on French theorists. Those who:

- Perceive a need
- Know that courses provided will respond to that need
- Can formulate and control a learning project
- Have social and spatial autonomy and free time
Have basic skills in the area in order to face group-learning situations

Danish educational research points further to adult education as a form of self development or fulfilment. Whether a superficial interest or a life project, free choice leads to careful selection. Illeris (2002) claims to examine learning theories from Europe, America, Norway and Russia in order to establish what he sees as an age-related process of learning which is integrated into the identities and life-styles of adults.

He concludes that adults draw on their resources and select what they want to learn. If what they are learning appears to lack meaning or importance their motivation will drop and they will forget what they have learned, although he does not say if this is true for all learners. He states that “[These life projects] are embedded in the life history, present situation and possible future perspectives of the individual and are closely related to what we call identity” (Illeris, 2002). Although this is gender and age blind research, it shows that adults learn if certain motivations are present, but only retain what they see as meaningful.

For women, recognizing the meaning and importance of learning has been a crucial step towards emancipation, changing and strengthening their identity both individually and collectively in the struggle for equality with men. However, a number of women in a study by Dench and Reagan (2000), for the DfEE, reported that they had "missed out" on education and careers due to "traditional" husbands. Although this term needs further exploration, it is clear that the presence of a husband influenced the adult education choices of these women and this aspect is followed up in my research.

Research into the motivation of older learners, (Research Question One), has been mostly gender-blind but offers some insight into its personal value and also its marginalization. The personal importance of learning to the quality of life of the older person is specifically mentioned later in “Development and Activity” in the Quality of Life section of this chapter, although it appears likely that it would also affect social and emotional
aspects as well. Its importance is recognized by Walker (2000) who describes the approach of the older learner to non-vocational education as a purposeful type of self development which is equally as important as work-life education but which is neglected by government funding intentions, reiterating Carlton and Soulsby's policy paper for NIACE on the older learner:

“For the past thirty years or so, the focus has been on the younger generation, and the older people are seen as obsolete, past their sell-by date, and an economic burden to be borne.”

(Carlton and Soulsby, 1999, p2)

Their in-depth interviews of a ten per cent sample of the respondents to an initial questionnaire revealed that out of equal numbers of men and women the most frequently mentioned reason for participating in learning (74%) was “I wanted to keep my brain active” (p. 46).

More specific reasons were, in order of importance: Intellectual, i.e. to increase knowledge, to enjoy a challenge, to fulfil particular learning ambition; Personal, i.e. satisfaction, to take life in different direction; Instrumental, i.e. work or to help family or community, although this was seen as less important (ibid). The interviews enabled a wider approach to the immediate motivations revealed by the quantitative study. They brought out a common theme of curiosity and a desire to follow up interests in the extra time provided by retirement (p.45).

A consultation exercise by the Pre-Retirement Association (a charitable organization) offers an individualistic set of motivations for learning; cognitive/intellectual, social and to do with engagement and enabling of personal development. They also report that older learners are seeking outcomes which will have meaning for their own lives and which will help them to develop and understand their journey towards older age. They conclude that some kind of “transformation” is seen as an immediate motivation, leading to the need for a policy agenda which includes
encouraging older learners to “take charge of their lives and become more emancipated” (Walker, 2000, p.311). This research reiterates that UK policy and practice in adult educational provision has focused overwhelmingly on the work-life learner, neglecting the interests of retired people.

The research stresses the importance of involving older learners themselves in considering the place of education in their lives and involved a questionnaire and focus groups. When asked the question “What does learning mean to you?” the answers were; health and well-being, benefits, personal development and knowledge and understanding. Of the three hundred responses to the questionnaire, three quarters of the sample were women although the research did not focus on gender differences. However, they did observe that the men were more interested in acquiring facts whereas the women were more interested in extending interests and facing new circumstances (ibid), a point which is discussed further in Chapter Seven – Conclusions and Recommendations.

Lifestage triggers as motivation for learning, are observed by Rogers (1977) and Walker (2000) also notes that major life changes were also a trigger for learning in the PRA research, with retirement being the most frequently mentioned. McGivney (1993) considered age and gender on patterns of motivation, pointing out the influence of life stage on the motivation for learning but classifying all older adults together as learning for personal satisfaction, self-development, leisure reasons and changes in family role.

To address the variety of motivations, Elliott (1999) calls for a comprehensive Lifelong Learning provision which can attempt to meet the needs of adults, whether economic, intellectual or personal, while Schuller and Bostyn (1996) see this in terms of three priorities for policy with regard to motivating older adults to learn. Firstly, they need support as they may not have embedded learning habits. Secondly, there needs to be a long term perspective for ongoing development. Thirdly, they point to the need for ICT skills in both older workers and retired people, in order to take
advantage of the growing learning potential of computer-mediated education, a point which is discussed in the section on Gender and Education via the Internet.

Encouraging policy statements have not so far led to increased educational provision. In fact, the 2003 NIACE participation survey shows a sharp fall in adult learning across most age ranges, after the steady progress of the last five years. The statistics show that 83% of retired adults have not participated in learning during the last three years (Tuckett and Aldridge, 2003, p.26). The economic decline is offered as an explanation for falling work-age participation in learning and training but NIACE offers no suggestions for the decline in participation by retired people (Sargant 2002).

Inevitably, the motivation for retired older learners will lie mostly outside the workplace and the issue of accreditation, significant for the funding of courses, may seem an irrelevance or even a discouragement for non-vocational learners. Carlton and Soulsby, writing for NIACE (1999) state that research into the participation of older learners in adult education shows that they prefer non-accredited courses in art, languages, music and information technology. Dench and Reagan (2000) carried out a survey for the DfEE which found that qualifications were not as important to older people as learning for personal interest or a hobby.

This is not surprising but it means that their chosen courses may be threatened by funding which prioritizes accredited courses or that the only course available entails a formal assessment, particularly in areas which overlap with work, such as ICT. As Payne wrote for NIACE in 1999, "Much of this sort of learning [non-vocational] will need state funding, and cannot be so easily offset by apparent economic gains as the costs of workplace learning can" (p.10). This may mean that courses are not suitable for the requirements of some older learners or too costly, despite concessions. My research could only reach those who have found suitable courses, however, and for whom fees were not prohibitive.
INCLUDING OLDER WOMEN IN THE INFORMATION SOCIETY

This section brings together the main concepts of gender, technology, education and age. It mainly relates to Research Question Three, in that literature concerning the implications for older women of learning to use the Internet. The health and welfare of older people often appears to be taken out of their hands by (working age) professional decision-makers and however well-meaning, the positionality of researchers may also appear detached from such subjects, seeing "them" as a growing body of people to be supported and maintained by "us", the taxpayers, via the State. However, their independence is beneficial for all: "Any resource that can increase the number of non-institutionalised elderly, offers a positive social gain" Moyal (1992, p. 297). Timmons (2003) observes that the Internet is usually seen as a resource to be used on behalf of the older person rather than by them. Computer literacy in the form of ICT skills may, in fact, help older people to alleviate some of the social problems of later life for themselves in order to avoid dependency on others and increase their sense of power and control over their own lives.

Research by health professionals across several European cultures adds to the argument that older people need more control of their individual social and economic circumstances. At the 5th European Nursing Older People Conference (2001) Squire presented research from both the UK and Romania which showed that one of the most important concepts mentioned by respondents of both sexes was being in control of their own lives. Technology may be seen as a threat or a benefit to this, depending on the ability of the elderly to be able to use it to their advantage.

Increasing social capital with ICT may be seen as a factor in the ability to control one's own life and to avoid social exclusion. Conversely, the Internet and email may be seen as a threat to communities. Putnam (2000) observes the decline of social networks and civic involvement in the USA which he sees as the fault of domestic technology in the form of television. He mourns the loss of "social capital", which he defines as personal contact among communities, fostering a reciprocal network which creates value for
those included in it. His research shows how people have become disconnected from social and community bonds, which he sees as fundamental to a healthy and happy society in which older people may remain an active group. He cites the loss of community activities such as card-playing societies, which he blames partly on the rise of computer mediated substitutes which eliminate small-talk and focus purely on the game (p.104). He points out that the textual nature of Internet communication precludes the many non-verbal messages and social asides on which human relationships thrive.

However, he can also see the Internet as a positive contribution to social capital if it is treated as a “kind of twenty-first century public utility” with inexpensive, subsidized access for all (p175), allowing, for example, online societies to enhance rather than destroy social capital. Access, however, will not entirely solve the problem for groups such as the elderly or technophobic, who need to be able to understand the change and value a different kind of social capital as their familiar support systems decline.

The wider implications for increasing the social capital of the elderly by encouraging an active, educated and computer literate older generation extend not only to personal benefits, in terms of health and social welfare, but also to their unpaid contribution to welfare expenditure. The gendered division of unpaid labour does not end at retirement and women may well exchange child-rearing for care of elderly parents, husband or grandchildren, extending their unpaid caring work into their sixties or seventies (Oakley 1987, p.32). A retired woman in her late sixties may, therefore, be in the ambiguous position of caring for her own parents, as well as her grandchildren, while suffering the negative stereotypes suggesting the uselessness of the “old”. As an investment in terms of social capital Schuller and Bostyn (1996) point out that older women provide a possible £24 million pounds worth of care for their dependant relatives and suggest that they are at least offered some skills with which to do it:

“What are the costs of allowing a 60-year old woman who is caring for an elderly relative to lose her motivation and
energy...compared with the costs of basic educational provision?"

(Schuller and Bostyn 1996, p.91)

"Basic educational provision" to advise, inform and support such active and independent women carers could be provided via both the Internet and digital television channels but this needs to be accompanied by awareness, access and skills. However, the assumption by television programmers that viewers have access to digital channels and Internet web-sites appears to be unrealistic. Sargant (2002) found that older people are still more reliant on analogue TV, with only seventeen per cent of the over seventy-fives having multi-channel access and only four per cent with Internet access. The 2002 Adult Participation in Learning Survey which produced these figures also showed that Internet access was both class and age related and its use in the home was gender related, with women using it less than men for a range of activities, including learning. This suggests that older women who could benefit both themselves and their families from multi-media support may well be excluded for reasons relating to social class, age and also gender.

Economic and socio-cultural barriers for older women are also the subject of a report by NIACE which concludes that they may have finished formal education before the age of sixteen, possibly giving up paid work to raise a family, and are therefore less likely than men to have independent pension rights. They are likely to have earned less while in paid work and to have a low income in old age. Factors such as social class or frailty may further exclude them from learning programmes. Numerically, among the over eighties, women outnumber men by 2:1 meaning that more women face economic hardship and the problems of extreme old age (Carlton and Soulsby, 1999). The Older Women’s Network, Europe, meeting in Italy in 1999, [online] recognized these barriers to Internet literacy for older women, calling for national governments to target campaigns at less affluent and less educated older women in order to encourage them to use ICT.

Research into access to computers at home supports a need for such encouragement for retired people and older women in particular. Using a
Mintel survey as a source (a computer marketing database), which he admits may not be representative, Mackay (1997) reports that only six per cent of the over sixty-fives are computer owners, and that less women than men own computers overall. The largest group of computer owners were people with children at home, followed by “Professionals” (fifty-two per cent), and “Managers” (forty-one per cent), while only seven per cent of economically inactive households owned computers. It could be assumed, as women make up the majority of over sixty-fives, that few own computers in their own right. However, ownership within the family unit may be unclear (from a survey) and the presence of one in the house may be explained in many ways which do not indicate its purpose or the skill of its users.

The political role of education as a means of emancipation is a feminist imperative (Benn et al., 1998). Computer mediated study (e-learning) is particularly appropriate for older women who may prefer to study at home, and may possibly empower them well into advanced old age. Walker (2000) reports that the PRA (Pre-Retirement Association) held a consultation meeting where the over fifty age group was invited to discuss their lifelong learning needs, including how learning should take place. Equal numbers of men and women took part, making a total of forty participants. Walker notes that there were equal numbers in favour of self-help, face to face, formal and informal groups, but that there was a “significant mention” of the Internet as another means and resource (p.303).

However, a possible gender issue is raised regarding the relationship between learning and the use of computer mediated communication (CMC) as a resource, by Kirkup's (1997) research into an early computer conferencing venture involving Open University students (of unspecified ages) on a Women's Issues course. She claimed that despite a stated wish to communicate with other students, the majority could not overcome a lack of confidence. As one of their tutors, I found the limited telephone technological support intimidating, and that pay-as-you-go telephone charges made experimenting costly. Kirkup (1999) later concluded that women students were, however, more inclined to learn to use email in the
context of other subjects of study rather than as an end in itself, learning to use it if it proved necessary to their future study.

An appreciation of the need to use e-learning may not be enough to raise the numbers using it across all social groups, however. Robertson (1988) sees access to information technology as being biased in favour of those who already have high-level qualifications. He points to its increased use by university students, to the detriment of books, seeing it as a "generalized, democratic instrument for the information-rich and well-qualified". Those who most need access to information are excluded by cost, access and a culture which assumes "social position, occupation, and the precise and educated use of language, particularly English" (Robertson, 1988, p.16).

The Open University's first online course T171, "You, your computer and the net" is being followed by other courses where Internet access to resources is becoming essential and the OU has a target of 2007 for all students to be online (Matthews, 2003). This may exclude poorer people, the unemployed, those with learning difficulties and disabled and retired people who, arguably, have the greatest need for flexible and accessible adult education but may not be able to cope with acquiring and using the technology.

More optimistically, Swindell (2000) found that old people were willing to experiment and appreciated the Internet as a way of learning. He studied twenty-nine people, three quarters of whom were women, who studied two eight week courses offered via the Internet in 1998-1999. University of the Third Age (U3A) tutors wrote courses in their own subjects which were turned into Internet courses professionally and aimed at people who perceived themselves as isolated. He observed that old people may experience a sense of isolation which is not recognized by the rest of the community, despite living in well-serviced communities. Although concluding that the courses were well received, he acknowledges that there is little known about "the characteristics and aspirations of older people who are prepared to use the Internet in order to become members of an electronic community of learners" (p.253) and it is towards this area of study that my
research contributes, in order to capture the personal perspective of women in this group.

Although Swindell sees e-learning as a way of combating isolation, Butcher et al., (2000), warn against computer mediated learning, seeing ICT as a threat to the benefits of a real location for study, where the experience of learning in an atmosphere of mutual support may be lost to the much cheaper alternative of self-directed Internet learning. This may be seen as a real danger to an emancipatory feminist pedagogy by threatening the mutually supportive women's learning environment encouraged by second wave feminist projects (Deem, 1993).

With increased access to computers, and Internet awareness, older women may feel confident enough to take a more active interest in promoting the welfare of their peer group by maintaining an active interest in current affairs and/or politics. To do this, they need to be able to communicate their views, reiterating the second wave feminist motto "the personal is political" (Hanisch 1971). Bernard (2001) calls for older people, and women in particular, to be given more of a voice in policy making and practice, noting that older people are becoming more politically active on their own behalf and seeing themselves as "active consumers" rather than recipients of the care of others (p.346). The World Health Organization (WHO) suggests that rising education levels of people now aged over sixty-five has led to older people forming political pressure groups in several European countries, which helps them to stay active and interested in life and gives them some degree of agency (WHO, 1999, p.34).

It seems feasible, therefore, that older women may be motivated to empower themselves by collective action from their armchairs, informing themselves about political and social issues which affect them now and in the longer term. The UK Government has produced a policy consultation document on civic participation, outlining e-democracy, which includes proposed e-voting and electronic provision of information [online]. This would make political participation easily available to the ICT literate citizen, potentially
emancipating individuals and groups of women whose voices have been previously unheard across all lifestages.

If older women are to join a global forum to empower themselves as an age/gender group, they need to be respected as bona fide learners of ICT and targeted accordingly. This section uses the sparse literature available to show that older women, as a group of ICT learners, are undervalued by educational bodies, researchers and themselves. Gender differences in attitudes towards the Internet were observed by Age Concern, in their research into use of the Internet by people aged over fifty-five (Age Concern 2002). In a study of 501 people, they report gender differences affecting motivation, (Research Question One) in that men were more likely to use the Internet for information and research, hobbies and checking the news, while women were more likely to use it to keep in touch with family and friends and to research holidays.

Lack of confidence towards the Internet was found by NIACE to affect older women more than men (Walker 2000). Of those who could use a computer, seventy per cent of women said they would never use the Internet compared to sixty two per cent of men. Sixty-one per cent of men and fifty-six per cent of women thought that it was important for the over fifties to be able to use the Internet, the main reason being "to keep up with the times". However, only fifteen per cent thought it would be an aid for the elderly or housebound, perhaps showing a lack of awareness of its uses. A Which? Online study carried out in 2001, claimed similar levels of (ungendered) aversion to the Internet in that two thirds of those (male and female) over the age of fifty-five say that they would never use it (Guardian, 19.06.2001). However, Age Concern report that "almost all people who give computers and the internet a try realise the relevance of IT and the potential it has to improve their lives" (Age Concern, 2002, pp.1-5). This suggests that the reputation of the Internet may be off-putting and that older people need to be made aware of its usefulness to them.

With regard to the provision of learning, Age Concern asked how older people would like to learn the Internet, reporting that the most popular
suggestions were "special learning facilities" and libraries. It is not known where the sample group was drawn from, however, and it seems likely that there would be a difference in access to Internet facilities between city and rural areas and across social class and the age spread in retirement. The humorous and self-deprecating approach of taster and threshold courses, which advertise such titles as "Computers for the Terrified" or "Are you Clueless about Computers?" may attract those who would be afraid to join a more formal sounding course (Wallis, 2002). However, it may be seen as patronizing or disrespectful by others, reinforcing a negative relationship between themselves and computers and detracting from its relevance to their lives. On the other hand, others just list their curricula, assuming that the public know, for example, what a search engine is for and why learning to use one would be useful (See Appendix II).

Questions relating to Research Question Two also address the practical and physical experience of learning to operate the computer, as these relate to a wide age range of older learners, contributing to an area where what little research exists relates to younger retired women in their fifties. Women who are possibly twenty-five years older may have problems adapting mentally and physically to computer use. Longman and Stuart (1995) highlight some physical difficulties in "intuitive" use of the computer. Although relating to adults with learning difficulties, they note that commercial products such as Microsoft Windows, make certain assumptions about the physical/mental agility of users. This may be applicable to older learners who may have physical difficulties e.g. with fine motor movements or vision and who may lack crucial basic skills, which prevent them from keeping up with the class. Students' perceptions of their own abilities may differ from those of someone teaching them, however, and so interviews with tutors add another perspective and some element of triangulation to the research.

For the Internet literate, however, the physical and social restrictions of gendered old age may, to some extent, be overcome. The opportunity exists to change or deny gender and age and to create an "internet identity" of one's own choosing, a point addressed by my third research question.
Featherstone (2000) points out that older people do not need all their faculties and fitness to join a “parallel universe” where an “old” identity, with its “bodily betrayals” may be avoided (p.612). Gilroy (1997) takes this further in pointing out that “individual identity is no longer limited to forms of immediate physical presence established by the body” (p.314). It is possible to create virtual personae and to change, enhance or omit details about oneself, creating an easier and more calculated form of the way that people select information to present to others in daily life. Without the social requirements of youth, physical attraction, able-bodiedness and mobility, it may be possible for the old and disabled to communicate as equals with others via the Internet.

This highlights the point that the Internet places power and control over identity in the hands of the Internet user within the virtual reality of what Gibson named “cyberspace” (1986). My questions explore this subtle relationship regarding the potential freedom of women to control the image that they present, away from the hegemony of male visual imperatives for women of youth and beauty, i.e. the “male gaze” (Mulvey, 1975). However, a view of ageing which stresses agency and reflexivity also needs to take into account structural inequalities which constrain opportunity and affect identity choices.

The situated identities of older women reflect their past as well as their present places in society together with the influence of those around them in establishing their personal perspectives of a quality of life. In order to theorise from this subjective data, I felt that it would be helpful to consider some models, offered by the research of others, from the various more objective perspectives of interested professionals, into which broad areas of life are seen as influencing a sense of personal well-being. By relating these to gender, age and learning to use the Internet this section informs Research Question Three, which enquires into the impact of the Internet skills learned by the respondents.

The expression “quality of life” blends the subjective sense of well-being with the more objective circumstances in which people live. The different
research priorities of philosophy, social sciences, health services and gerontology have not yet provided a single, agreed definition of "quality of life". Pickering and Thompson (1986) acknowledge that personal and social criteria complicate the establishment of a single definition of the quality of life, balancing the values of old people themselves against the agendas of carers and health providers. Smith (2000) further notes that the individual's changing subjectivity may mitigate against a concrete definition. Perception of the "quality of life" must remain at least partly subjective, however, with "happiness" as a central but hard to measure concept (Sixsmith et al., 1994). Lawton tries to encompass both the objective and subjective in his definition (from the perspective of a scientific researcher into geriatrics). "Quality of life is the multidimensional evaluation, by both intrapersonal and social-normative criteria, of the person – environment system of the individual" (Lawton, 1997, p.45). Putnam (2000), writing from a political science/public policy perspective, prefers to regard this more as a form of social capital, which focuses on the value of an interactive network of communication with others as the key to personal and communal well-being.

I have chosen to use a quality of life model presented by Felce and Perry (1995), which focuses on education and self-esteem from the perspective of work with learning and disability. I have grouped feminist and other literature relating to older women under these headings, where they appear to relate to use of the Internet and this framework is used as a link to my own findings in Chapter Six, mainly as they jointly inform Research Question Three. I feel that this framework is relevant for my research as it captures the identity issues in which I am interested and I have used their five general domains to frame my research, as follows:

- **Physical well-being**
- **Material well-being** (e.g. clothing, meals, income)
- **Social well-being** (e.g. community participation, active social networks, maintenance of friendships within these)
- **Development and activity** (e.g. leisure, hobbies, choice control, education)
• Emotional well-being (e.g. self-actualization, self-esteem, self-worth, status and respect)

Physical well-being
As people age, their consumption of health care is likely to increase, together with an awareness of future medical problems. The Internet may be useful to them as a communication and information system to support personal physical well-being as well as indirectly, within the professions supporting community health and social welfare. Such information may allay fears of illness and improve their ability to make health choices. The Department of Health stipulates that old people “need information about their own health, the range of local health and social services, and should be involved in making their own decisions” (2001, p.27).

Salkend et al., (2000) discovered that the quality of life of women over the age of seventy five in their random sample was greatly affected by being physically able to live independently. There are now many medical and health websites offering information, advice and support and Kiley and Graham (2001) have published a handbook on how to search for these, stressing the use of the NHS Direct Online service and reporting that the site attracted over seven million hits in its first four weeks of operation. Timmons suggests optimistically that:

“...in the future, the therapeutic relationship may include educating patients, not just in how to deal with their condition and care for themselves, but possibly how to find information about it: evaluating information.”

(Timmons, 2001, p.107)

Timmons and also Kiley and Graham warn, however, that health websites should not be used as a surrogate for professional medical services. Wyatt’s (2001) research concluded that although patients need more involvement in decisions about their own health, a good paper handout may be better than confusing and variable Internet information.
Nevertheless, if reputable sites are used wisely, the feeling of empowerment and control through the ability to find information quickly and easily may bring greater benefits than risks in terms of reducing the fear of the physical aspects of ageing. Kirkwood’s Reith Lecture “The End of Age”, acknowledges the rapid advance of information technology and its so-far unrecognized potential to revolutionise the lives of older people. He claims that:

“It can enable radical new models of health care and support for older people living at home, effecting savings that would amply repay the costs of installing an internet connection in every house, just like electricity, gas and water.”

(Kirkwood, 2001 p.69)

The Internet may prove to be a valuable asset both in terms of quality of life for the individual and also in wider terms of health and social care savings. However, by allowing the elderly a greater sense of control through access to online basic medical knowledge and the means of sustaining a healthy independent life in their own homes, other areas of their general well-being and quality of life may also be influenced.

Material well-being
Ownership of a computer with an Internet connection is also likely to be class and education related. “The General Household survey data on computer ownership....shows that sixty-four per cent of professional households had a home computer as long ago as 1996, compared with fifteen per cent of unskilled manual households” (Timmons, 2001, p.104). The relatively high cost of computers and Internet connections seems to suggest that older women with their own computers will be predominantly middle class. Retired people may no longer have economic status as producers, but they now represent a considerable body of consumers, targeted by holiday companies, clothing catalogues and insurance companies. With advancing age, retired women may find it increasingly convenient to shop online, thus maintaining their material well-being.
In extreme old age or isolation, essential access to daily needs in terms of food and warmth may well be improved by the ability to order food shopping and other items on the Internet and to pay heating/lighting bills without the need to travel. These aids to living may mean that they are able to maintain independence in their own homes for longer. Conversely, for men as well as women, the wider implications concern the possible social exclusion of those who are not computer literate from this way of maintaining their independence. However, availability of Internet classes alone will not level the influence of structural inequalities, which will affect financial ability to buy computers, and pay for Internet access and computer skills education. Social class differences may also mean that some may not have the family encouragement or be bought or given a computer by their children, as were several of the women in my research.

Social well-being

Social well-being is acknowledged as important by Government, Health Education and Old People’s organizations. Target Five of the World Health Organization’s “Health 21” report is that, in order to lead an active and interesting life, older people need to take part in community activities (WHO, 1999, p.35). Kirkwood observed in his Reith Lecture that “IT can transform the lives of older people, providing contacts, information, entertainment and access to specialised services” (Kirkwood, 2001, p. 69). This view is supported by the DfEE Report "Learning in Later Life: Motivation and Impact" (2000, p.11), citing research which showed how the Internet alleviated isolation and improved the quality of life for residents of an old people’s home. The social aspect of the Internet, emailing friends and family, joining chat-rooms and following hobbies may, therefore, have a positive effect on individuals, whether they are in their own homes or residential accommodation. This can only strengthen the network of connections for older people, enhancing their social capital and, by their inclusion, that of others as described by Putnam (2000) earlier in this chapter.

Media publicity of the annual “Silver Surfer of the Year” awards, presented by Hairnet, a computer training company set up for older people, show that
the Internet is becoming increasingly popular as a means of social contact for older people. Age Concern and NIACE have also been involved in the organisation of events taking place annually in Adult Learners week across the country (Alexander, 2002). My research aims to supplement these policy statements, gender blind surveys and publicity related opinions by offering perspectives of feminism and lifestage.

Development and Activity (e.g. leisure, hobbies, choice control, education)

This section illustrates the view that personal development and the choice to pursue leisure activities, hobbies and learning contribute to the quality of life for older people. Mayo (1997) defines well-being as including access to leisure, recreation and adult education, these being features of health in its broadest sense. Bernstein Lewis (2002) further cites studies in the USA which have found that recreational activities and fitness enhances an older individual's sense of well-being.

Policy documents from the perspectives of education and health agree that learning is beneficial for both intellectual fulfilment and healthy ageing. In addition, lifelong learning has been linked with the quality of life by several government research programmes. The DfEE report that “Eighty per cent of learners reported a positive impact of learning on at least one of the following areas: their enjoyment of life; how they felt about themselves, satisfaction with other areas of life; and their ability to cope” (Dench and Regan, 2000). My research will test the validity of this assertion through its application to a specific group of older women, not just through learning to use the Internet but also in the way that they intend to apply its use to other areas of leisure, hobbies and lifelong learning.

NIACE, in its discussion paper “Older and Bolder” states that older learners are:

“...strongly motivated towards learning for its own sake, and understand progression to be not just towards qualification as an end in itself, but more towards advanced
levels of knowledge and research, opening up new horizons. At the same time they value useful skills, in information acquisition and technology, languages, the arts and crafts.”

(Carlton and Soulsby, 1999, p.11)

As well as learning via the Internet, Bernstein Lewis (2002) points out that older adults are “actively engaged in using the Internet as both consumers and producers of information” (p.17). This research suggests that older people have much to offer in terms of knowledge, if they are able to communicate it to others and that such involvement and interaction with others had added new dimensions to their quality of life in this domain (See also earlier reference to e-learning and empowerment for older women).

Emotional well-being (e.g. self-actualization, self-esteem, self-worth, status and respect)

A sense of self-worth and emotional well-being inevitably incorporates at least some of the previous elements of a “quality of life”. Defining “the self” is complex, incorporating not only subjective identity but also our relationship with others. Phillipson (1998) points out the danger of assuming that self-identity is formed earlier in life and carried through, complete, to old age (p. 126). With respect to women’s self development and changing identity, feminist research has been less concerned with ongoing changes across the whole life span, being mainly focused on childhood gender acquisition (Sharpe, 1976; Murphy and Elwood, 1998) and younger women’s issues of sexuality, mothering (of small children) and the menopause (Oakley, 1974; Greer, 1992; Crowley and Himmelweif, 1992). However, feminist auto/biographies have broadened the perspectives of identity, social class, family and lifestage, sometimes analysing the mother/daughter relationship for insights into self-knowledge which extend into older lifestages (Steedman, 1986; Haythone, 1991 in Chapter Four – Methodology, Section on Biographical Approach).

The importance of health, totality and wholeness in later life is explored by Ruffing-Rahal (1998). Her naturalistic research from the perspective of a
Jungian health and wellness consultant, focused on the qualitative well-being of older women. She observed that their identities were enriched “broadening the arena of their functioning beyond traditional concerns centring around parents, spouse, children and family...[they] transcend into a new realm of personal identity, enabling fuller actualization of their humanness and wholeness” (p. 17). Phillipson (1998) agrees that older age is a potential source of (personal) liberation and (social) freedom from work and domestic roles, despite the risks. A time, instead, to “reposition their own identities, and to redefine the scope of ageing as a social and personal event” (p.124).

Phillipson (1998) concludes that sociology, (rather than gerontology) needs to address the social exclusion of older people and the ways in which they sustain their sense of self and identity in a postmodern world which does not recognize the emotional needs of later life. Rich adds a feminist perspective to ageing in which she observes that old women refuse to see themselves as old and attempt to hide their actual age from others, seeing themselves as different from other old people; interesting and pleasant looking, as opposed to dull, ugly and worthless. She believes that this links them with their oppressors and renders them politically impotent and isolated (Rich 1992, pp.56-57). This supports Gramsci’s (1971) view of hegemony, in this case where the dominant devaluation of old age is accepted and reinforced even by the oppressed and separates women from each other by the denial of an identity as “old”.

As well as showing that the self is constantly changing and growing, Ruffing-Rahal (1998) suggests that older women may be able to rediscover and assimilate parts of their identity which had previously been hidden for fear of “being regarded as unconventional or deviant to the prevailing norms of womanly behaviour.” Internet skills may be a positive way of empowering women, encouraging psychological well-being by allowing them freedom to interact with others in a way which does not reflect the ageist or sexist judgements of others (See earlier section “Age issues for older women learning ICT”). Older women may also find a voice with which to speak on equal terms with other age and gender groups in debates
around technology in a society from which they have been previously excluded.

SUMMARY

This review has drawn together literature which relates to the three questions at the centre of this research. The feminist case that science and technology have developed as an exclusively male discourse which has disempowered women both at work and within the home, supports my findings that a lack of technical confidence among women has transferred to the use of computer technology. I have outlined the background of adult education and how it has underpinned the empowerment imperatives of the feminist movement, relating this to funding issues for older women learners.

Despite the lack of fusion between gender, age and technology within current research I have taken the debate forward to consider the implications for older women, educated from post-war gendered curricula, of living in an increasingly technological, postindustrial society where the potential value of inclusion is compared to the dangers of exclusion. Finally, I have returned to the relevance of the Internet for older women as a means of improving the quality of their lives. Using an external model, I have framed research which informs my own enquiry into the potential of the Internet for the emancipation and empowerment of older women and the necessity for them to be included in the discourse of technology.
CHAPTER FOUR

CHOICE OF METHODOLOGY AND METHODS

BACKGROUND TO EDUCATIONAL RESEARCH

In order to justify my choice of methodology and methods I have considered the background of educational research methodology and the influence of feminist imperatives on my research questions. As this research focuses on a feminist issue (women and technology) and a rarely researched age group of women, I felt that I needed the depth afforded by a small-scale study, rather than the breadth of a survey approach. As there is little research which connects these concepts I felt that an exploratory approach, seeking depth rather than breadth, would lead to inductive analysis, grounding theory in the data.

My aims of informing educational theory and practice have been goals of social research, outlined by Hammersley (1993) and Hirst (1993) and which have been adopted by educational research. It is useful to trace the history of educational research towards these twin goals of theory and practice in order to place a feminist approach in context. Educational research is rooted firmly in the Enlightenment-inspired area of empirical knowledge produced by scientific method, "positivism". As the social sciences developed, educational research became the subject of sociological enquiries but the empirical, positivist approach prevailed. In the post-war UK, social class inequality was the main concern of sociologists, leading to some large-scale quantitative research programmes into the causal links between social class and educational achievement. However, by the 1960s, questions were being asked about the suitability of studying this type of cause and effect relationship in complex human interactions. The dominant positivist theories and methods of psychometrics, systematic observation and surveys were challenged by the more subjective phenomenology, social and cultural anthropology and symbolic interactionism (Atkinson, et al., 1993).
Studies by Hargreaves (1967) and Lacey (1970) of social class in schools, pioneered the use of ethnography (direct observation of a particular social group) and these studies encouraged other forms of qualitative research in the 1970s and 1980s. However, neo-Marxists and feminists criticised educational research at the time for reinforcing the political status quo by looking at issues of educational access instead of challenging the dominant capitalist/patriarchal values. By the early 1970s a more critical educational research emerged which was prepared to challenge the nature of the "knowledge" taught at schools and was also prepared to attack other inequalities such as gender and race. Qualitative methods have been used towards increasing awareness of educational issues for girls, women, ethnic minorities and also disabled learners (Deem, 1993; Kirkwood, 1993; Begum, 1995; Barton, 1996). However, this has led to an association between feminism and qualitative methodology.

THE CHOICE OF QUALITATIVE METHODOLOGY

I did not choose a qualitative approach purely because it is seen as "feminist" although Atkinson, et al., (1993) link qualitative research with feminism as a "tradition' of British studies using qualitative methods that draw their inspiration from feminism" (p.24). There is no denying that feminist research has become synonymous with qualitative methods and that feminist qualitative research has been seen as a challenge to established male-dominated positivist methodology. Jayaratne and Stewart (1995) point out that "qualitative research is often more consistent with feminist values" (p.224), but are concerned that differences between women are ignored by the focus on inter-sex differences, claiming that essentialist views stereotype all women's research as feminist. In fact, not all feminist research is qualitative and not all qualitative methodology is feminist so there is a need for further justification for the methodological relevance of qualitative feminist research to the concepts of both age and education.

My choice needed to recognize feminist epistemological imperatives but also reflect the objectives of the research and take the age of the respondents
into account. Depth and richness of data were a priority so my choice was for a methodology which allowed this. McCracken (1998) claims that "qualitative research does not survey the terrain, it mines it" (p.16). Strauss and Corbin (1998, p.11) suggest that qualitative research "lends itself to getting out into the field and finding out what people are doing and thinking" while Denzin and Lincoln (1998a, p.2) define qualitative research as multiparadigmatic, cutting across disciplines, fields and subject matter. They see the value of both education and feminism as qualitative perspectives, whose political agendas challenge the "truths" established by positivist science (See Feminist Epistemology - Chapter Two).

FEMINIST METHODOLOGY?

There have been numerous attempts to define a specific feminist research methodology. Lather (1995) sees it as research which puts "the social construction of gender at the centre of one's inquiry" (p.294). Whether feminism can justify identifying its own methods of research has become a contested point. (Maynard, 1990; Hammersley, 1992; Ramazanoglu, 1992). Feminist research has been seen as having political goals which complicate the argument about its ability to conform to existing research criteria, such as bias. For Hammersley (1992), the political agenda of feminism negates it as a specific research methodology as he believes that all research goals should be apolitical pursuits of knowledge. He claims that feminist methodology cannot achieve this as it has an underlying emancipatory agenda (1992, 1995).

His point is strongly contested by Ramazanoglu (1992) and Gelsthorpe (1992) and through the earlier work of Roberts (1981), Harding (1987), Stanley and Wise (1990) and Reinharz (1992) who claim a place for feminist epistemological standpoints in valid knowledge production. The issue for Ramazanoglu is that feminism should not be dismissed from the "scientific community" because its "ways of knowing" are different. She suggests that all knowledge is political and that denying feminist based methodologies will serve to maintain the male empowered status quo
However, other feminists claim that a feminist interpretation is more valuable than the choice of method. Kelly, et al., (1995), believe that what makes feminist research feminist is less the method used, but more how it is used and what it is used for. Reinharz (1992) however, considers that attempts to define a single feminist method of research need to be expanded to include the plurality of feminisms and the variety of methods that they have used. She claims that "feminists have used all existing methods and have invented some new ones as well" (p.4) leading to a variety of ways of understanding women rather than through a single voice for all women.

THE CHOICE OF METHODS

My choice of the in depth semi-structured interview method allowed respondents to speak for themselves on issues relating to this relatively new area of education (Internet/email skills) in order to develop theories around why older women undertake this type of learning, whether the learning is perceived as successful and ultimately, how to provide for their perceived needs in this area. I chose an adult class and a sample age group with whom I can relate as a peer but I also have experience of teaching adults myself, which gave me a personal awareness of teaching and learning issues on which to base my analysis. I also regarded the tutors as a separate peer group with whom I shared many teaching issues and experiences although I was aware of their suspicion that I may be representing the Education Authority.

I felt that interviews would provide deeper and more valuable information within the three main areas/concepts of my research, age, gender and education. Firstly, the sample group are likely to be any age between mid fifties and eighties and a questionnaire may have given problems with reading or writing, together with the restriction of space and the danger of misinterpretation of questions. Secondly, feminist research encourages a
more personal approach, with the emphasis on two-way contact and the reflexivity afforded by a face-to-face interview (Lather, 1995). Thirdly, interviews are particularly appropriate to community settings, such as adult education, where "an appreciation of the significance of learning acts can only come when the researcher has gained the trust and confidence of the subject" (Brookfield, 1983).

Although interviews are used in many different types of qualitative research, Berg (1989) offers what he considers to be a standard definition: "A conversation with a purpose. Specifically, the purpose referred to is to gather information" (p.13). Moser and Kalton (1971) identify various levels of informality, ranging from set questions to unstructured interviews. The in-depth interview, however, is seen by Hyde, et al.,(1992) as affording the researcher the opportunity to explore the complex nature of individual views and perceptions at a deeper level.

This research method is not, in itself, gendered although it has been notably adopted by feminists as particularly appropriate for discovering the voices of women. The work of Stanley and Wise (1990) places this in a feminist context, observing that a degree of empathy is involved, advocating that the researcher is located on the same critical plane as the researched. This method encourages a reflexive approach in which the researcher reflects on the process of research, acknowledging (his or) her subjectivity and relationship with those being interviewed.

Maynard debates the contribution of feminist research in that it is thought to introduce reflexivity, self-criticism and accountability. She also utilises the "story telling" approach and advocates a "rapport" between researcher and researched (Maynard, 1990). By allowing the subject to speak for herself a deeper understanding of the experience and its context may be reached. In this way, qualitative methods have been able to reach rich data on the process of education, while quantitative data may contribute large scale survey information on the input and outcomes of education in terms of quantifiable results.
Roberts (1981) points to the benefits of encouraging the respondents to "ask back" in order to generate knowledge through conversation. This rapport with the researcher reduces the danger of objectification by breaking the researcher/subject dichotomy, also noted by Cook and Fonow (1990). Interview structure and question formulation has been revised following the initial study with reference to Rubin and Rubin (1995). Kvale (1996) offers guidance on how to translate "thematic research questions into interview questions to provide thematic knowledge and contribute dynamically to natural conversational flow" (p.130). Lather (1995) points out the reciprocal nature of the relationship between researcher and researched in that both become "the changer and the changed" (p.294). I feel that this approach was relevant to my research questions because I wished to consider the gendered position of the women as it related to their lived experiences of technology and their current ICT learning. Bearing in mind my own experiences and perspectives, I felt that my interpretation of this research could have implications for teaching practice and education policy.

A more detached viewpoint is expressed by McCracken (1988). He warns that working in one's own culture destroys critical stance and that critical awareness can only be achieved by manufacturing some distance between interviewer and respondent. However, a lack of empathy and rapport may risk the researcher missing unfamiliar or unexpected nuances or not gaining the confidence of the respondent. Concerning feminist research, Reinharz' (1992) opposing view observes that women interviewing women reach the "subtleties embedded in women's speech itself, such as hesitancies, nonfeminist researchers consider such 'subtleties' to be marginal" (p.24). Instead, many feminist researchers see themselves as part of the data collection process and its reflexive analysis and feminist researchers such as Stanley (1991) and Reinharz (1992) have based their approach to methodology on this. It is the latter approach which I intend to use in order to study the perceptions of an educational experience by a specific group of women.

Rather than adopt the positivist, scientific criteria of researcher neutrality and detachment in order to aspire to value freedom, I intend to follow the
A qualitative approach where values are acknowledged and "researchers' attitudes fully described and discussed" (Henwood and Pidgeon, 1998). Qualitative research, whether seen as feminist or not, implies a method which concentrates on processes and meanings rather than outcomes. In the case of qualitative methods in education the researcher's "self" is the instrument and inductive analysis may yield unanticipated results. Qualitative researchers stress the importance of the relationship between researcher and researched, and the situational context (Denzin and Lincoln, 1998a; Cohen and Manion, 1994; Strauss and Corbin, 1998). Attention has been given to my own positionality and influence on the research situation. A reflexive approach to the data increases awareness of the research process and its possible flaws, as highlighted by the painstaking self examination of Nias (1993).

The location of the researcher within the interview process is seen as crucial by Stanley (1991), who criticizes the dichotomy between subject and object and advocates the value of seeing the researcher as part of the research (reflexivity). She identifies three components of feminist epistemology. Firstly, that feminist knowledge be derived from experience, secondly, that the researcher needs to be on the same "critical plane" as the people being researched and thirdly that feminist epistemology rejects the dichotomy of objectivity v subjectivity which underpins the knowledge base of scientism.

Criticisms of qualitative methodology against quantitative criteria are that reflections may not be seen as truthful, objective or factual. Research principles applied to social issues have always been controversial and their methods and purposes are still currently debated. Scrivener (2002) regards data as a neutral raw material, to be objectively transformed into truth. Eisner (1993) however, believes that we should abandon the ideal of ontological objectivity and believes that truth is "the product of our own making" (p.54) which changes as we discover new "truths" informed by new paradigms. He claims that "The facts never speak for themselves. What they say depends on the questions that we ask" (p.54).
Other theorists agree that social research cannot and should not aim to achieve the "pure" truth which has been idealized by the scientific positivist approach. The highly relativistic position of Foucault (1980), with respect to questions of truth, is supported by Kemmis (1993), who offers formal requirements for any adequate and coherent educational science. He claims that "it must reject positivist notions of rationality, objectivity and truth" and states that "the question of its truth will be determined by the way it relates to practice" (p.179). Eisner's pluralistic and relativistic view is that "knowledge is always constructed relative to a framework, to a form of representation, to a cultural code, and to a personal biography" (1993, p.54).

This view suggests that there is no external "truth" but whereas the qualitative research method does not seek objectivity as its primary ideal, quantitative research justifies itself on the grounds that it is unbiased, verifiable and representative of reality. However, poor quality quantitative research which claims to be objective may, in fact, be extremely damaging if taken to be "truth" and widely believed. Jayaratne and Stewart (1995), cite Benbow and Stanley's research (1970, 1983) which was widely reported as showing that girls were innately less able than boys at maths, despite many subsequently discovered flaws in the study. It may be further argued that even the most carefully planned quantitative study is also subject to the discourse of the dominant culture via the priorities and values of its researchers (Denzin and Lincoln 1998a). Hall (1992) describes discourses as "ways of talking, thinking, or representing a particular subject or topic. [leading to] meaningful knowledge about that subject" (p.295). Therefore, if the dominant discourse assumes that "meaningful knowledge" must be based on a scientific approach to social matters it must also exclude and detract from the validity of other ways of understanding.

Qualitative researchers have been criticized by positivists from their own, established epistemological base, for lack of objectivity, generalizability and validity. Phillips (1993) sees abandonment of objectivity as "fatal for the integrity of the research endeavour" (p.65) although Lacey (1993) felt that his aim of showing different views of the educational system meant that he could not “go along with the notion of ‘objectivity’” (p.116). Strauss and
Corbin (1998) point out that small scale substantive research has distinct aims, to explain and predict for its own area of study, rather than to make wider general claims. The subjective methods of this research, using semi-structured interviews, do not claim to be objective or to generalize, using instead an inductive, grounded approach. Rather than constructing a sample to generalize to the whole population, my sample is drawn from a specific age group and subject of study within a small geographical area, within which I have attempted to saturate for diversity within this category. However, I am aware that this was not entirely possible in a piece of small scale research, and that my sample is biased in terms of social class (see Chapter Five - Methods and Procedures).

Schofield criticizes qualitative researchers for abandoning generalizability altogether, seeing a need to generalize to some extent in order to have implications for policy. Thus, it may establish "the 'fit' between the situation studied and others to which one might be interested in applying the concepts and conclusions of that study" (Schofield, 1993). This research matches Schofield's criteria of "what may be", which she describes as study of a situation which may become more common and an awareness of how teaching practices might develop (p.109). However, the strength of my chosen method is not related to a claim to generalize but is in the richness of depth of the perceptions of the respondents, the context that biographical data allows, and the reflexivity of the researcher.

Because of the patriarchal dominance of science, and its belief in binary opposites, qualitative methodology has become associated with the "softer" women's methods of research and with feminism itself, which in turn has been seen as a weaker and less meaningful means of understanding society than the more easily verified statistical approach. Methodological principles need to be adhered to by any researcher in order to attain degrees of rigour which will be academically sound. Although feminists have challenged the patriarchal dominance of this and brought new "ways of knowing" and new methodology to social research, it is necessary to be credible in order to command academic respect. Some qualitative feminist research has notably been publicly discredited on methodological grounds. Hite's (1987)
research 'Women and Love' was subsequently found to have violated principles of sampling, which cast doubt on its conclusions. The publicity this received helped to stereotype feminists as "incapable of sophisticated and valid research" (Jayaratne and Stewart, 1995, p.227).

Therefore, as my research is concerned with the background and interpretation of the process of learning of a sample of educationally marginalised women it would seem that I am drawn to qualitative research both from the choice of an appropriate method of educational research and from feminist epistemology. However, it is clearly necessary to apply a degree of rigour in sampling, interviewing and analysing data.

Questions relating to the biographical history of the respondents addressed their past relationship with technology. This gave a background narrative influenced by their sense of self, which may be relevant to their reasons for wishing to become familiar with ICT skills. Middleton (1993) advocates a biographical approach, regarding an awareness of key areas of women's lives to be a way of placing their present motivation towards education in context of their earlier experiences, not just of school but in the case of this research, of work and towards technology.

This approach supports the feminist aims of this research by giving a more personal voice to feminist issues, i.e. by relating the personal to the political. "Recognizing the standpoint of subjects as shaped by their experience of class, race, gender or other socially defined identities has powerful implications for pedagogy" (Weiler, 1995 p.40). By listening to women's experiences, the everyday lives of women have become valued by sociological audiences (Ribbens, 1993) and through their personal stories the voices of marginalized groups may be heard within social processes and historical contexts (hooks, 1995; Steedman, 1986; Evans, 1995).

Maynard also advocates the "story telling" approach, encouraged by a "rapport" between researcher and researched within feminism. She discusses the reshaping of sociology by feminist methodology which she claims has introduced reflexivity, self-criticism and accountability
(Maynard, 1990). Although reflections will inevitably be selective, they may help to understand the relationship of these women to technology. As the women in this research have memories of at least fifty years ago, it seems important to take account of what Bourdieu (2000) describes as a trajectory, of successive positions occupied by people in constantly changing circumstances.

Older white women's issues may usefully be compared to those of black women. Lorde (1995) ties her feelings to a "black way of knowing" with which she explains differences between women, based on the lived experience of marginality. This foregrounding of identity and a sense of "self" through lived experiences may be compared to older women, whose lives have informed and dictated their present positionality. Older women have not always been isolated from the voice of women in the same way as black women and they may not consider themselves to be marginalized now. On the other hand, their sense of marginality may have changed gradually over time, for example, after retirement, or suddenly, due to a change in circumstances, such as widowhood. In this way they may feel that they have been cut off from, or drifted away from power through the loss of career, health, husband or friends rather than having never had power or a voice within feminism. Unlike black women, they may not see themselves as discriminated against, but fear gradual social exclusion as their social world contracts and technology sets up new barriers. This kind of depth suggests how selected social and historical experiences may have shaped their narratives and sense of self, leading to their present sense of identity.

Their motivation towards learning now, in retirement, is likely to be very different from their attitude to compulsory pre-work education some forty years ago. However, their past experiences may be relevant to their confidence and ability to accept a new educational challenge. Research has shown that past experiences do influence future participation in adult education. The more comprehensive the school experience, the more likely a person is to join some sort of adult class. Those with "more than minimal
previous educational success" are more likely to take part later in adult education (Woodley, et al., 1987, p.5).

The work of Plummer (1983), although not feminist, is methodologically informative, stressing a more humanistic perspective of sociological research. His work concerns biography, structure and history, locating the active human subject within the constraints of social structure. He believes that the study of human experiences is not necessarily the opposite of positivism but that social science has focused on structure, neglecting human experiences and the subjective telling of a story. His "Documents of Life" give a clear account of the methods and practical problems of qualitative research, which have informed my approach to the interviews. This work is now over twenty years old and does not acknowledge the contribution to qualitative research made by feminism, referring to examples drawn from classic studies of men by men. A gender blind approach appears to re-absorb women under the term "humanist", and may be criticized for "gynopia" i.e. the inability for androcentric researchers to perceive women as "there" (Reinharz, 1992, p.168).

OTHER METHODS CONSIDERED

Although feminism is linked with qualitative research methods I have not rejected the quantitative approach purely because women are the subject, and I use primary and secondary quantitative data to support the research together with supporting course documents (See Appendices II, III and IV). Bird (1992) uses qualitative and quantitative data in her study of Open College adult returners and Maynard (1996) points out that the polarization of quantitative and qualitative research, in which feminism usually rejects the former as male positivism, is unhelpful. This view is supported by Jayaratne and Stewart (1995) and Strauss and Corbin (1998). However, as this research explores the interrelationship between age and gender in relation to adult education and as I wish to explore the diverse perspectives of older women particularly I felt that a feminist interpretation of qualitative methods would be the most relevant approach.
With regard to older learners, Honey and Mumford (1992) and Withnall (2001) point out that UK research has been mainly quantitative and I considered whether a survey or questionnaires would reach the data that I needed. Cohen and Manion (1994, p.25) offer three general criticisms of quantitative research which suggest that it would conflict with my research objectives.

- "It provides a misleading picture of the human being, which concentrates on what is visible on the surface, rather than the subjective world.
- It interprets the individual's experience in a subject-object way, rather than allowing them to interpret their own experiences in a subject-subject way.
- It results in a banal, synthetic view as it restricts the environment by controlling variables."

The exploratory nature of this research requires a more open and subjective approach to both data gathering and analysis and the age of the women researched make qualitative methods more suitable. Carlton and Soulsby (1999) highlight the difference in methods of enquiry into the participation of older learners. They compare the difference in results between a NIACE market research opinion poll and National Adult Learning Survey (NALS) interviews. The poll showed a lower participation than NALS interviews which, they claim, gave more opportunity for people to be prompted to remember courses studied. This seems to show that choice of educational research method can affect results when the memories of human beings, particularly elderly ones, are concerned, but it is also possible that the research priorities of two different organizations may decide method and/or anticipate a particular conclusion. As my research is independent, I prefer to choose a method which seeks to start from only three research questions into the broad areas of motivation, experience of learning and impact and which tries not to channel data to fit theory.
As there is no upper age limit to potential respondents, I felt that a questionnaire would be unsuitable for several reasons. Firstly, there may be age related physical problems with reading questions or writing answers. Secondly, there may be unwillingness or disinterest in completing a questionnaire, or a suspicion of what would become of it. Thirdly, the restricted themes of a questionnaire would preclude the unexpected or the serendipity, which enriches research findings. I wished to keep an open mind and be prepared to ground the theory in the data and semi-structured questions allow for flexibility of response and the development of ideas in a way which even open-ended questionnaires do not.

With regard to older learners, quantitative research may be hampered by complexity of the research method. Rundle and Dunn (1999) created a one hundred and eighteen item self-completion instrument to measure various elements of the learning experience. However, when Withnall (2001) tried to apply this to a sample of "older female workers" she found that many had difficulty in completing it, finding it too long. As my respondents are older than this and may have had age related physical impairments, a lengthy questionnaire would have proved to be unsuitable for them as well as for the objectives of the research.

Before deciding on in-depth semi-structured interviews, I considered various other qualitative methods, bearing in mind my objectives and the nature of the research. As a piece of independent research, my choice of interviews as a method was not influenced by external funding priorities.

Participant and non-participant observation would have given another perspective but, in this case, it was impractical as the room is very small, with computers lining all the walls so there was nowhere from which to observe the class unobtrusively. I could have undertaken participant observation, by joining the class as a student although it seemed unethical to take a place when demand always exceeds availability and I felt that it would be uncomfortable for the tutor. Also, there would have been limited opportunity to record information and participate in the course, (i.e. nowhere to rest a notebook). Taping the class would have been problematic.
as permission would have be needed from all the people in the room and quality of recording would have been poor as everyone is facing away from the centre.

Finally, it may seem that research into Internet use by older women may be best served by communicating with them via the Internet itself, either by email, through discussion groups, or "live chat". However, there are issues of data validity to be considered, ethical issues (see next section) and suitability to the research questions. The freedom to reinvent oneself and create another or multiple identities through the medium of the Internet means that it is not possible to verify that a person is who they say they are. Im and Chi (2001) offer a feminist critique of gathering data from respondents via the Internet, in the nursing context, noting that women's subjective experiences may not be uncovered and that the relationship between researcher and researched would be changed. They also note the lack of authenticity of respondents and ethical issues of confidentiality. Therefore, all the problems associated with postal questionnaires concerning honest and accurate answers would exist, together with the absence of any contextual or non-verbal data and a lack of face to face rapport with the respondents.

This could have been a useful way to follow up the respondents, as it would have shown whether or not they used email after the class. However, very few actually had an email address by the end of the course and, in fact, only two were contacted later in this way. In further research it may be possible to compile a list of email addresses of respondents (with permission, to conform to the Data Protection Act) so that they would have the opportunity to "chat" to each other, form relationships and share information. (N.B. Several of those interviewed expressed regret that they had not asked each other for email addresses).
Feminist research is divided over whether there is an accessible "reality" or whether reflexive accounts of the multiple "realities" of women are as close as we can come within what is a "political, contested and unstable process between the lives of the researcher and the researched" (Holland and Ramazanoglu, 1995, p.275).

The power relationship between interviewer and interviewee is particularly relevant to the education situation, where the status of both with an educational institution, may affect the relationship between them and inhibit the natural flow of the interview. Blair (1995, p.249) notes the "unpredictability of power" in feminist educational research, where hierarchical relationships may be assumed and notes the influence of other factors, in her case, racial issues. I was conscious that I needed to build a rapport with both students and tutors, based on common experiences with both, if I was not to be seen as some kind of teaching inspector. An honest approach to the tutors explained my need to triangulate by getting another perspective on teaching issues but I felt that the unwillingness of some tutors to be interviewed was possibly based on suspicion of my motives. On the other hand, Brookfield (1983) points out that some people feel intimidated at the prospect of the kind of "interrogations" that they have seen on television news and political interview programmes.

Although only in my early fifties, I felt that I may be regarded as a "peer" by the younger retired women. As I live locally, in a middle class area, there was some shared local knowledge which I felt helped build a rapport with the respondents and encourage more freedom in the expression of feelings, a feature of feminist methodology discussed by Maynard (1990). Kirkwood (1993) sees the subjectivity of the researcher as significant to a feminist approach, highlighting the need for more emphasis on the feelings and emotions of both researcher and researched. She criticizes sociology for its cultural belief that these are irrelevant compared to the principles of physical science, although others have warned that the subjective position of
the researcher may lead to assumptions and linguistic bias in questions asked (Cook and Fonow, 1990). Feminist negotiations of "ways of knowing" may be summarized by Holland and Ramazanoglu (1995):

"In these struggles, the validity of our interpretations depends on the integrity of the interaction of our personal experiences with the power of feminist theory and the power, or lack of power, of the researched."

(Holland and Ramazanoglu, 1995, p 289)

However, my own multiple identities were sometimes confusing; as a woman, sometimes almost the same age, sometimes thirty years younger than the respondents, a technological novice, a tutor and an academic researcher, meant that the interviewer/interviewee relationship varied considerably. I was often uncertain of my positionality because I was not sure how the respondents viewed me and the way that I viewed them differed mainly according to their age. Although I could usually maintain a rapport with the younger women, I felt quite deferential towards some of the older women, who belonged to my mother's generation.

Tang's (2002) experiences of interviewing her peer group (Chinese academic mothers) led her to conclude that Oakley's (1981) "non-hierarchical relationship" was not attainable for her. She observed that power relations within the interview are influenced by many factors other than sex and gender and that the perceptions of both interviewer and interviewee in terms of social, cultural and personal differences will inevitably affect the power dynamics because of the social and interactive nature of the interview method. My research, however, aims to see this relationship as a strength, in locating the researcher within the research process and recognizing this power relationship.

**Ethical considerations** with regard to the interview relationship between women also need to be treated with sensitivity. I was not seeking delicate and personal confidences and no-one appeared to regret what they had said. Confidentiality was respected and I have changed all the names of people
and places. I gave the respondents as much information about the study as possible, answering their questions about myself and my research and there are no issues of covert observation. I have conformed with British Educational Research Association and the British Sociological Society's guidelines in terms of anonymity and confidentiality, having given all persons and organizations different names. I have promised a copy of the dissertation to the Principal of the Adult Education Authority concerned. As I am self funded, there are no ethical issues concerning the priorities of funding agencies.

I have noted the warning by Schutt (2001) on the ethics of research using discussion groups and bulletin boards on the Internet, in case of the use of email to follow up future research, noting that such (covert) research can violate the principles of voluntary participation and identity disclosure.

A GROUNDED APPROACH TO ANALYSIS

A grounded approach has been used to analyse the interview data, following the methods first laid down by Glaser and Strauss (1967), within a feminist epistemology (see Chapter Two – Feminist Epistemology). Having used semi-structured interviews and encouraged the development of themes, I have utilized a grounded approach to inform theory. This involved following a process of coding and categorizing the transcripts until it was possible to reach conclusions which may be seen as grounded in the emerging data, rather than from a hypothesis (Miles and Huberman, 1994). This inductive method of analysis allows for the unexpected to change or enrich my interpretation (See Chapter Five – Methods and Procedures).
CHAPTER FIVE

METHODS AND PROCEDURES

This chapter describes how I used the methodology explained in the previous chapter to carry out the research.

ESTABLISHING THE RESEARCH FOCUS

The research frame was specific to a technical subject, a gender and an age group. Prior Literature searches revealed that research has mostly focused on the component parts but not the blend of gender, age, technology and education. Gender and the learning of science/technology has been a feminist education issue for the compulsory education sphere and is now starting to reach into computers and the Internet as they relate to women (Hughes, 2001).

Government sponsored research such as Dench and Reagan (2000) subsume the Internet into a general category of IT (meaning all computer skills) although the term Information and Communication Technology (ICT) and Computer Mediated Communication (CMC) is used by other researchers, e.g. Kirkup, (1997). This research sees the relationship to the communication aspect of using computers as the key issue for retired women and I have used ICT to mean the use of the Internet for information and communication.

INITIAL (PILOT) STUDY

The purpose of the initial study was to test the methodology and its ability to inform the research questions. I also wished to gain experience of conducting semi-structured interviews to fulfil my main objective of exploring perspectives and experiences rather than seeking generalizability.
I chose a grounded approach in order to draw conclusions from the data (Glazer and Strauss, 1967). The instrument chosen was semi-structured interviews, which I coded and analysed using methods outlined by Miles and Huberman (1994) and Rubin and Rubin (1995). I also used Strauss and Corbin (1996), and Denzin and Lincoln (1998b) on analysing qualitative data.

An Internet class for beginners in my local small town had recently been established (Autumn, 2001). This was due to “popular demand” and was funded by Education and Learning Wales (ELWa), using Welsh Assembly money, rather than LEA funding. It was apparent, from details of pre-enrolments, that the majority of participants were women over retirement age. This suggested a positive interest among this age group and encouraged research. I asked for volunteers from retired women attending a specific beginners Internet class at a rural Adult Education Centre and four women responded.

The key questions that I wished to explore within and relating to these three areas related to:

- **Education**, as a child and later as an adult
- **Leisure** - relationship to adult classes and Internet classes
- **Family** - situation and influence on need to use Internet
- **Domestic** - gender role within household and use of Internet, e.g. shopping, pay bills
- **Personal** - growth of confidence, change of attitude, empowerment
- **Motives and expectations**
- **Course experience**
- **Course outcome** - accreditation issues - importance, desirability
- **Age** - life stage, gender and reasons for studying this course now.
- **Technology** - relationship with it over lifetime, gender issues, age issues

I felt that two interviews each were necessary for a “before and after” approach. Seven interviews took place as one failed to attend the second
interview. The interviews were all between 20 and 30 minutes long and were taped with the prior permission of the interviewees. The interviews were transcribed immediately afterwards to maximize accuracy. I developed a List of codes for categorising concepts. The codes were framed around the aims and grounded in the actual dialogue. (Miles and Huberman, 1994, Strauss and Corbin, 1996). Further codes and categories were added as necessary and modifications made if a concept/topic appeared to be too broad or not strictly relevant. A summary of each interview, noting the main points of interest in relation to the research questions was made, while retrieval of all coded information was allowed via a categorisation sheet. Following the initial study, several modifications were made to the research questions and to the method of research.

CRITICAL REFLECTIONS ON THE INITIAL STUDY

I felt that the initial study confirmed that qualitative methodology was the most relevant for this research. The interview method was suitable for my objectives as I wished to listen to the voices of older women who were able to consider and recall at their leisure. As the age of respondents ranged from late fifties to early eighties I felt that time and patience may be rewarded by allowing the opportunity for carefully considered responses. The semi-structured questions allowed for the development of ideas and opinions and for the serendipity. Although I took a "before and after" approach to the pilot interviews. I concluded that this impeded the voices of the respondents, objectifying them and moving away from a qualitative approach towards a more positivist epistemology (Cohen and Manion, 1994). I felt that it was important that they reflected on their own (focused) feelings and experiences rather than impose my own comparison of two interviews. I was then able to interpret their views using a critical feminist approach.

The initial study highlighted a number of methodological and practical problems with the research leading to a revision of both Research Questions and interview questions and a tighter link between the objectives of the

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research and the methods chosen. Generally speaking, the interview experience was a useful and productive one. Many lessons were learnt, regarding the practicalities of the interview situation and the method of tape recording, transcribing interviews and analysing data, which led to a refined method of approach to the actual research later in 2002 and in 2003.

MAIN RESEARCH

I decided to use a single post-course interview, during which I could enquire into background, motivation, experience and impact of both the Internet and the course. Semi-structured interviews were again used, to maintain focus without being prescriptive. However, following the pilot study, it was apparent that the interviews needed more structure, so questions were more strongly directed towards the three research questions: motivation to join, experience and impact of the course. In order to place the respondents' perceptions of their relationship with technology in context, brief reflections of their education, work and family role were encouraged as these influence their relationship to technology now. This background information helped me to bond with the respondents, to identify with them and to understand their sense of identity.

A further perspective on the course was gathered from interviews with some tutors and from fliers and a course outline (See Appendices II and III). Field notes helped to note impressions gained from body language and to add the context of home environment, if present. I kept a research diary, which helped me to record progress and to reflect on my own feelings about the research process (see Appendix VII).

I felt that observation of a class would not add to the research, which focuses on the respondents' own post-course reflections of motivation and impact, rather than my own perceptions of the teaching and learning experience. I did sit in for an hour in one class but felt uncomfortable as there was no quiet corner in which to sit and I felt conspicuous. Participant observation would not only have taken up a valuable place in the class but
the geography of the rooms and the individual learning style of the classes would have made it difficult to observe as well as participate.

Selection of the sample
The sampling method for the pilot study had been successful so interviewees were initially identified by attendance at a Beginners' Internet class, either as a Saturday School, or a five week daytime course. Theoretical sampling broadened the data throughout the interview process, i.e. the joint collection, coding and analysis of data leading to modifications to methods. (Glazer and Strauss, 1967). As a consequence, the sample frame was widened to include other Internet classes for beginners in the area. This was because it became apparent that most of the respondents were retired professional women and I wished to see if women from a centre in a more working class area would broaden the data. Also, some interviewees referred their friends who had taken similar classes (snowball method of sampling). This helped me to widen the age range of respondents and to increase numbers although respondents were all apparently middle class.

The initial respondents were recruited from those retired women attending day time Internet courses as these classes were thought to attract retired rather than working people. With the permission of the tutors, I explained the purpose of my research and requested volunteers. A form was handed to anyone expressing an interest, completed and collected in later (Appendix I). Brief details and my telephone number were on the top half of the form, which could be separated and kept, but few of the women actually did this. I then telephoned them to arrange an interview. Several tutors agreed to be interviewed on gender issues and on teaching older people. Their views inform the research in that they have their own perceptions on teaching this specific gender and age group (See “Teaching the Internet, tutors’ perspectives” in Chapter Six).

The interviews
Respondents were interviewed as soon as possible after their courses finished, (usually one or two weeks). Permission to tape interviews was
asked beforehand, and all respondents were informed of the purpose of the study and invited to ask questions. All respondents were promised anonymity and names of adult centres changed. Although most of the interviews took place in the homes of the respondents a choice was offered and a small minority preferred the adult centre, where an empty classroom was provided. This bias was unavoidable as I could not insist on a particular location, due to the voluntary nature of participation. Although the interview technique was the same, the atmosphere was more formal and these interviews tended to be shorter. At the end of the interview period, due to pressure of time and the circumstances of the respondents, the last three interviews, two tutors and one student, took place on the telephone. Although this was not intended, it did allow comparison of the interview methods.

The interviews which took place in the respondents' homes were the most successful, depending on many different factors. The most productive took place in an unhurried and comfortable atmosphere. Almost all offered tea and biscuits, and a choice of living room or kitchen for the interview. I tended to choose the living room as there was more background information about the respondent to prompt questions, e.g. family photographs, examples of hobbies, e.g. embroidery, and the television, video recorder and hi-fi equipment. However, it was sometimes less easy to hear the taped interview afterwards, due to the fact that the tape recorder usually had to be placed on a coffee table between two large armchairs or a sofa. By placing it on the kitchen table, across a corner, it was possible to get physically closer to the respondent, in order to hear both voices clearly.

This problem did not affect the respondents interviewed at the Owen Centre as it was possible to arrange the chairs myself, again, across the corner of a table. However, this atmosphere was less comfortable and there were no visual clues as to personality or interests. A more "official" atmosphere resulted, although I was able to provide a cup of tea, to help to make the interview informal. The telephone interviews were even more formal, and questions and prompts had to be clearer because of lack of body language cues. Although rapport was more difficult, I made sure that my voice
sounded cheerful and friendly. However, the absence of the eye contact expectations of a social setting enabled me to look more carefully at prompts and notes in order to ensure that questions were asked. As I put the telephone on to loudspeaker mode I was able to use both hands. I asked prior to the interview if I could tape the interview and all agreed so the data collected was in the same format of a taped conversation, which was then transcribed and coded, as with the other interviews.

On several occasions the respondents' husbands were at home and several contributed briefly and informally to the discussion, although they were almost all engaged in an outdoor occupation, usually gardening. One respondent (Marina) was caring for her severely disabled grandson, who needed constant attention and whose obvious terminal condition affected my concentration on the interview, and upset me for several days afterwards. His laboured breathing also affected transcription of the tape (See Appendix VII). However, apart from a few interruptions by pets, the rest of the interviews were not seriously compromised by outside influences.

**Handling of data**

The tapes were transcribed on to a computer, in Microsoft Word, and the lines numbered. The interviews were identified by the chronological number of the interview and the first initial of the respondents' first names e.g. 5D (Doris) which was a useful abbreviation during the transcription and analysis. Pseudonyms were later given to the respondents, which used the same initial and seemed appropriate to their age. Some care was taken to ensure that the name was suitable as names become fashionable for certain periods and then fall out of use. To use the name Donna would have suggested a much younger person, but to use the name Doris suggests a woman in her sixties or seventies and seemed, to me, to fit the personality of 5D. The names of the adult centres were also changed in the interests of anonymity. The interviews were all printed out for Stage I coding.

**Coding procedure**

Early coding structures were established from the pilot interview data collected between October and December 2001 but were revised throughout
the main study to ensure that they were relevant to new data. Analysis was based on the following three stages; descriptive, interpretative and pattern coding (Miles and Huberman, 1994). The creation of codes, following Rubin and Rubin (1995), allowed an inductive method of data analysis leading to theory grounded in the data. This helped me to stay open-minded about the relationship between learning the Internet, empowerment and the gendered roles within the family and also the respondents’ perceptions of communication and knowledge as a means of changing or reinforcing a coherent post-work identity.

Stage I – Descriptive coding, to identify and differentiate
As I transcribed interviews as soon as possible, coding started immediately on the hard copies. Sections of dialogue were initially coded in the left hand margin according to their topic and the research question to which they initially related. Thematic and conceptual points were summarized in the right hand margin in order to assist the next stage of coding. Codes were developed during the initial coding process as they emerged from the interview material and were categorized as they related to the research questions. This method continued throughout the interview period culminating in a set of ‘emic’ codes, used by informants themselves, e.g. MS – Shopping, given as an explicit motivation, and ‘etic’ codes, assigned to attribute meanings, e.g. IE – Indication of empowerment, interpreted as an impact (Flowerdew and Martin, 1997). Specific references to age and/or gender were coded within this framework. Further early groups of “Educational and Work Background”, and “Personal” were established for the biographical data, and field notes were coded within the group “Personal Observations”. Early grouping is endorsed by Spradley (1979) and this helped to build a relationship between the research questions and the data, while not precluding links between and across categories at the next stage of coding. I therefore, created sub-categories within the early framework as they appeared to be relevant, in order to create focal points for the coded data.

Coded sections of the interviews were copied into files using Microsoft Word “copy” and “paste” functions, in order to bring together all similarly
coded dialogue across the interviews. Each piece of coded dialogue was identified by respondent code and interview line number and extracts were copied into all relevant categories. This enabled collection and comparison of comments made on specific points by respondents and enabled the quantification of a small amount of data, where relevant, mostly relating to motivation. Copies of the intact interviews were also kept in order to be able to keep the context of comments. A brief descriptive cameo was written of each respondent to identify and retain some of their personalities and to maintain a memory of them as "real" people, rather than coded data.

Stage II – Interpretative coding – to identify underlying concepts and themes.
The coded data was revisited, to look for links and to identify concepts for further interpretation. The sub-categories within each main category e.g. "Impact", were axially coded using "broader, more comprehensive and abstract" headings (Strauss, 1987). The resulting conceptual codes linked data together e.g. "Life Stage as an Older Woman" which contained sub-categories from the Motivation, Personal and Impact categories, which referred to ageing, bringing the data together in a different way in order to re-focus on the core concepts of age and gender. The data was copied and pasted into these thematic categories on the computer. Interview observations provided an interpretative category, based on field notes and my research diary (See Appendix X) and was supported by cameos of the respondents (See Appendix VIII).

Stage III - Pattern coding – to establish patterns and causal links
Themes were drawn out of the interpretative codes, which connected data across and within previous categories to inform the core concepts of age and gender and to tie these to the research questions. Interesting themes were identified during this process of re-examining the data patterns. These were interpreted with relation to existing research by confronting the data with the literature. Further interpretation then took place, grounding the conclusions further within the research data and establishing the relationship of the data to the theory and practice of education.

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CHAPTER 6
PRESENTATION AND INTERPRETATION OF FINDINGS

I have used the three themes of the research questions; motivation, experience and impact, to provide a broad framework within which to ground themes emerging from the data. However, the background of the respondents and relationship to technology inform all aspects of the research and so these are explained at the beginning of this chapter.

BIOGRAPHICAL CONTEXT

Feminists see the voices of women themselves as being the means to learn about their lives and understand how their experiences differ from those of men (Roberts, 1981). The following data has been collected to give a sense of who the women were; their commonalities and differences, within their shared gender and socially defined age group. This data refers to their social class, their educational preferences and working lives, their family situations and their perceptions of their relationship with technology. Two case-studies illustrate the insight into the areas of the three research questions which is informed by biographical details from the semi-structured interviews.

Social Circumstances

Owing to the middle class catchment area of the Owen Centre, used for the pilot study and early main study, I was not surprised that respondents were mainly retired from middle class professions. One of the tutors pointed out that there was a noticeable difference in the approach of her other class in a more working class area and I subsequently broadened the geographical catchment area to two larger towns in the hope of attracting respondents from other social class groups. However, I found that the respondents in these groups were also middle class, and did not live in the areas where the classes were located. Shared social class appeared to be the strongest
commonality between the women, possibly influencing their ownership of a computer and also their motivations in terms of the desire to research more expensive interests, e.g. travelling.

I had assumed that there would be a high proportion of widowed, divorced or single women (as all four of the respondents in the pilot study were widows) and this had led me to conclude that the classes would comprise women who needed to use the Internet because they were living alone. This proved to be less significant than the pilot had indicated. In fact, there were only four widows, two divorcees and one single woman in the main study, the rest of the respondents all being married (see Appendix II). All of the respondents mentioned their families, often indicating their gendered role, which appeared to be central to their identities.

Most were mothers (of grown-up children), although three were childless and two mentioned children who had died. Most of those who were mothers also mentioned grandchildren, and great grandchildren, and some cared for these on a regular basis. One woman was caring for her terminally ill six year old grandson during the interview and several others mentioned elderly parents or husbands who they had nursed or who depended on them. Brothers and sisters, sometimes living abroad, were often mentioned in the context of motivation for emailing. Some of the respondents appeared to have a strong local network of friends, although, where bereavement or moving house had taken place, there were comments about the wish to meet new people.

**Education and paid work**

I asked about favourite school subjects in order to see whether the women were motivated by a lifelong interest in science or technology but most had preferred other subjects. However, those who had obtained mathematics and science qualifications had later followed careers in the health service. Most of the respondents were able to describe their working identity in terms of a single profession, often involving work that needed communication skills (See Table 6.1 below and Appendix VII).
Table 6.1
Summary Table for respondents' occupation or profession

<table>
<thead>
<tr>
<th>Respondents’ occupation or profession</th>
<th>(N=27, including pilot study, but excluding tutors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office workers -supporting, clerical/secretarial</td>
<td>6</td>
</tr>
<tr>
<td>Office workers -supervisory, administrative</td>
<td>4</td>
</tr>
<tr>
<td>Nurses</td>
<td>3</td>
</tr>
<tr>
<td>Medical professionals</td>
<td>4</td>
</tr>
<tr>
<td>Teachers/lecturers</td>
<td>5</td>
</tr>
<tr>
<td>Hairdressers</td>
<td>2</td>
</tr>
<tr>
<td>Actress</td>
<td>1</td>
</tr>
<tr>
<td>Homemaker</td>
<td>1</td>
</tr>
<tr>
<td>Not known</td>
<td>1</td>
</tr>
</tbody>
</table>

N.B. The pilot study respondents have been included as this data informs the main research.

The women all claimed to have passed exams and some had been to grammar schools, reinforcing the impression that they were from middle class backgrounds, and had conformed to gendered educational and work stereotypes for young women of their era. However, Lesley, one of the respondents, noted the constraints of a gendered education in the nineteen fifties, still resenting that she had been denied the opportunity to study mathematics at ‘A’ level because her girls’ school did not offer it (See Literature Review - Chapter Three).

Their education and careers broadly reflect feminist literature on post-war gendered subject domains in education as part of the social construction of gender differences (Kelly 1987, Browne and Ross, 1991; Paechter, 1998; Murphy and Elwood, 1998). It was sometimes possible to see an early influence or female role model in that several had been encouraged to enter the (female dominated) caring professions or teaching, for example, Hannah became a teacher because her aunt was one. This suggests the influence of
social structures and the perpetuation of women’s aspirations in gender and class terms, through primary and secondary socialization.

**Relevant skills**
Across the range of their professions, the respondents had either retired before computers/word processors were introduced, used them for inputting data only or tried to avoid them, regarded them as frustrating and problematic in their working lives. However, it was clear that most of the respondents had some knowledge of a computer or typewriter keyboard and that this may have contributed to motivation and success in the class. Some had been secretaries or office workers and could touch-type. Others had started to learn computer skills after finishing work or had built upon basic skills learned during their working lives. Several had learned word processing on the computer and had attended basic computer skills courses in retirement.

Some of the younger retired women had used a computer in their working lives, but only for inputting data. Sally, a nurse, kept patient records on computer, Doris used one for wages and accounts, Shirley used one for financial purposes and Marlene used one for sales records. Some had been expected to use them without proper training, which resulted in some bad experiences. Hannah mentioned being frustrated by trying to teach computer skills at junior school level without any training herself, which had discouraged her from using it for her studies at home.

No-one claimed to have used the Internet at work and the respondents who had used computers for inputting data seemed to have had little interest or training in any wider use of it in the workplace. Even the younger women did not appear to have more computer skills than were necessary to carry out their work. This working relationship with the keyboard may underpin a view of the computer and its related uses as functional rather than recreational (see Appendix VIII).
Current relationship with ICT and domestic technology

Most of the women, although from a range of technical and non technical backgrounds, claimed a lack of confidence with computers. However, their education, careers and social backgrounds suggested that while their interests were varied, they were capable and pragmatic women and that their negative perceptions of their technical abilities were not always correspond to the equipment, machines or tools that they were actually using in everyday life, or had used at work, many of which required some technical skill. They did not appear, however, to value these skills very highly or consider them to be technical, but saw them as part of their gendered working, family or domestic lives.

More specific prompts were often needed where respondents obviously had videos, microwaves and mobile phones although not all claimed to be able to use videos with confidence. Only one said that she could not drive. Several had mobile phones but said that they were kept in the car for emergencies, although a few were able to send text messages. Lesley said that she was not technical at all but later mentioned that she had a range of electrical household equipment, tools and machinery which (living alone) she used herself.

Adult sons and daughters often appeared to have given their parents or mothers their old computers on buying a new one, and encouraged them to go on-line (See Table 6.2). However, this meant that some of the respondents were using a variety of quite old computers which could not do what they wanted.
Table 6.2
Summary table of respondents' acquisition of a computer

<table>
<thead>
<tr>
<th>How respondent came by computer</th>
<th>N = 27 (including pilot study but excluding tutors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought new for self</td>
<td>4</td>
</tr>
<tr>
<td>Bought new for her by adult children</td>
<td>1</td>
</tr>
<tr>
<td>Bought new by husband</td>
<td>3</td>
</tr>
<tr>
<td>Daughter's “cast off”</td>
<td>4</td>
</tr>
<tr>
<td>Son's “cast off”</td>
<td>7</td>
</tr>
<tr>
<td>No computer at home</td>
<td>1</td>
</tr>
<tr>
<td>Not specified</td>
<td>7</td>
</tr>
</tbody>
</table>

Several respondents related failed attempts of friends and family to teach them at home, noting that they explained things too fast and were too impatient. As Ann pointed out;

"My son brought one over but he lives in London so he wasn’t there to turn to. I have a friend across the way who is very good but you do find that a lot of computer people are so fast that you can’t follow it. You need to be able to write it down."

Ann

Others felt that younger family members did not have the time or patience to teach them and that they needed a more sympathetic approach.

In general, the respondents did not claim to be confident in using the Internet and were quite self-deprecating in their answers to questions and prompts relating to their skills with computers and other technology. Their confidence with computers fell between two extremes. Sandra described her almost phobic feeling towards computers, noting a physical tension and feeling of fright as soon as she sat down in front of one and her constant dread of “breaking” it. "To me, it's illogical. I almost get anxiety attacks
just sitting down at the computer to do something, because I'm waiting to screw up. It's utter lack of confidence.” This fear may be more readily understood in the light of her family and work experiences, which also help to show the possible reason for her determination to learn. (See Case Studies below). At the other extreme, Beatrice appeared to be extremely confident in her approach, to the extent that her son had warned her to be more cautious in her use of her computer.

Talking to the women about learning the Internet generated a range of emotional responses concerning computers. I interpreted boredom, irritation and frustration, enthusiasm and excitement from their answers, sometimes showing a conflict of attitude (See Appendix XII). Ann saw her computer as a rather bad-tempered person, “When it freezes, I just have to switch it off. But I know it will give me a row when I switch it back on again.” This kind of distance was noticeable in the fact that none of the women saw the Internet as “fun” but treated it mostly with respect as a complex tool. However, several were enthusiastic about emailing digital photographs, mainly of their grandchildren (Shirley, Lesley, Marina and Ann).

CASE STUDIES

These case studies bring together the personal and the wider issues of older women, showing the agency of women to seek inclusion in a technological discourse, even to the extent of challenging a long established fear of technology. By enhancing their gendered identities they are empowering themselves on a personal level and strengthening the voice of this older group of women by showing that they will not allow themselves to be excluded from the technologically mediated discourse of the twenty first century.

The biographical details of this section give depth to the analysis of the three research questions and personalise the respondents, allowing me to observe similarities and differences between them. I felt that it was
important to protect the essence of the respondents as real people that I had 
met in case the process of grounding theory in the analysis and the 
generation of themes from the coded data depersonalised them (Rubin and 

Presenting some of the data as case studies also restores the subjects to their 
social context, showing the presence of others in their lives, and the 
influence of social structures which Weiler (1995) sees as having important 
implications for pedagogy. By encouraging reciprocal questions in order to 
create rapport, in a manner favoured by feminist researchers such as Oakley 
(1981) and Reinharz (1992), I invested my personal identity into the 
research and fostered reflexivity (See Chapter 1 - Introduction). Through-
looking back at the history of their relationships with technology, it was 
possible, in a limited way, to see how their changing circumstances had led 
to their current positionality (Bourdieu, 2000), and to consider implications 
for the broader impact on older women of Internet technology in terms of 
empowerment.

I chose Doris and Sandra because, although they are both white, retired, 
middle class, married local women, the differences in their gendered family 
and social lives are reflected in their motivation to learn to use the Internet 
and the possible ways that it may empower them. Differences between 
them illustrate diversity within the group “women”, even when there appear 
to be superficial similarities. Nevertheless, my representation of their 
differences must be recognized as my own situated interpretation of their 
selected memories and opinions, within the context of the interview 
(Stanley, 1991; Middleton, 1993).

I interviewed Doris, a cheerful 71 year old great grandmother, in her 
comfortable home in a quiet seaside suburb. She proudly showed me 
photographs of her large extended family, some living close by and some 
abroad. She had always lived locally, attending grammar school, but 
described how she had lost interest in education and left early to train as a 
comptometer operator. Her husband had been a personnel manager and she
had returned to work to manage a small office after her children were grown up, until retiring six years ago.

Sandra was one of the youngest respondents and was probably in her early to mid fifties. Her interview took place in an empty classroom at the local adult centre. She had retired with her husband (who was older) from teaching Latin in an American High School for Girls and now lives in a small village near the South Wales coast. She did not appear to have children but spoke at length about her husband and their interests. A keen Egyptologist and classical historian, she felt that she needed to be as competent as her husband in following her interests via the Internet and also mentioned an interest in digital photography and booking holidays to visit friends abroad.

Comparing the two case studies
Although they were superficially linked by their desire to use the Internet and their choice of a structured learning programme, the place of ICT in their gendered everyday lives, was different. A feminist analysis suggests that Doris intended to use it to help protect her role as matriarchal centre of the family, without overtly challenging her husband’s overall authority, while Sandra was seeking empowerment from dependency on her husband, recognizing the possibility of an isolated future as a widow (Au and Raphael, 2000). Although they both claimed to lack confidence with technology, they were linked by their determination to challenge their fears and a science/gender stereotype in order to achieve these goals.

Doris saw the Internet as another tool to help her perform her gendered family role rather than to step outside of it, as considered by Ruffing-Rahal (1998). She felt the need to restore her identity as a respected elder across the generations of her family, “I didn't like the idea of my children knowing something that I didn't, particularly now it's my grandchildren and my great grandchildren.” Doris’ view illustrates the significance of this particular historical moment in the advance of technology. She saw her authority as being undermined by the ease with which even young children have embraced ICT, while people of her generation are bewildered by it. She
regarded herself as a “wise grandmother” (See following section on Typologies), empowered by being able to use ICT to increase her knowledge and aid her communication skills for the benefit of her family (Salkend, 2000; Timmons, 2001). Despite her self doubts, she was determined to become ICT literate in order not to be “left behind” by them (DfEE, 2000; Kirkwood, 2001).

Sandra appeared to have fewer family roles than Doris, as she did not mention children or grandchildren, or close living family other than her husband. As the interview developed, she mentioned that her mother had been widowed when Sandra was in her teens. She used a storytelling approach (Maynard 1990) to describe her mother’s devastation and helplessness and said that she could now see the same thing happening to friends whose husbands had recently died. The life that she hoped to maintain related (more than Doris) to friends, travel and hobbies. The Internet seemed to represent a freedom for Sandra to rediscover herself as an independent woman, not forced to rely on her husband to organize and control access to her interests and hobbies in the event of his death.

The attitudes of the husbands of the two women to ICT may relate to the gendered segregation of roles within their marriages, as identified by Bott (1957). However, with regard to computers and the Internet, it appeared to have manifested itself in different ways. Sandra’s husband, a retired physics teacher, had assumed responsibility for ICT on her behalf as part of his role as “science expert” in the marriage. This may explain her description of herself as “clueless” or “inept” compared to him. Doris felt that her husband’s lack of interest in computers or the Internet was because he saw it, like typing, as women’s work. Now retired, and without his secretary, he expected Doris to word-process and email for him. This shows that the computer may be seen in two ways, relating to gendered domains; either as a (male) technological instrument/gadget or as a (female) typewriter. This illustration also highlights the significance of the complex relationships with close family members which influence the choices of the subjects (Steedman, 1986).
Doris’ empowerment depended on whether her life would be enriched through her personal use of the Internet, as suggested by Carlton and Soulsby (1999), Swindell (2000) and Bernstein Lewis (2002) or whether she would see herself as her husband’s secretary, acting on his instigation rather than her own. It seemed likely, however, that because the determination to learn was her own and she was motivated by her other family roles that the Internet would reinforce and empower as communicator rather than cipher. Doris appeared to be working steadily towards enhancing and improving her matriarchal role within the family and tried to encourage her husband to learn as well. By deliberately excluding himself, his power within the marriage may be gradually eroded if he is seen, and sees himself as unable, rather than unwilling to learn to use a computer.

Sandra’s gendered post-war educational choices had steered her away from maths and science, constructing her career and possibly influencing her phobia (Kelly, 1987; Paechter, 1998). However, her present agency to change her relationship with technology reinforces the views of Ruffing-Rahal (1998) and Phillipson (1998) that older age may be seen as a time for personal liberation for women and social freedom from existing roles. Personal empowerment appeared to be the primary goal for Sandra, in order to protect the social side of her life against the helplessness of widowhood that she had seen in others. However, the overcoming of her technological phobia also appeared to have a deeper symbolic meaning in challenging a long-standing fear of being unable to cope on her own.

Sandra had enrolled alone, feeling that formal teaching was the answer to learning a skill and said she preferred to learn in this way, expressing the view that she found it difficult to learn ICT from her husband and friends as they gave too much information, too quickly to absorb. They both felt that the technological language of computers was quite off-putting and related more to the world of men (Cockburn, 1992; Lowe Benston, 1995). Doris drew comfort from learning with other beginners and followed up the Saturday School with a longer, five week course with (female) friends that she had made on a previous computer course, bearing out the value of peer group support for women learning (Deem, 1993). However, both women
had increased their confidence by being able to help older people in the class who had less knowledge than themselves, suggesting that group support benefits both the helpers and the helped.

It may be that Doris’ growing skill at ICT will cause her to feel a subtle sense of power within her home and family life through taking responsibility for the role of communicator, rejected by her husband. Sandra’s more overt challenge to her husband’s technical superiority may represent a clearer impact of new skills to an established domestic structure, giving her a sense of freedom and control over her life and reassuring her in terms of the future. The personal liberation of retirement from paid work had offered Sandra the opportunity to broaden her personal interests and to see the scope of this lifestage in personal terms (Phillipson, 1998).

For both women, the importance of relationships with family and friends was primary and their ability to communicate more effectively was a source of empowerment and re-affirmation of a positive identity, which rejected the prospect of social exclusion through computer illiteracy (Au and Raphael, 2000). This positive inclusion may further signify a rejection of other negative aspects of an ageing identity and its related image of disempowerment, described by Rich (1992).

To some extent, the respondents were self-selecting, as they volunteered from larger groups. It may be that these were the women who wanted to talk about their (successful) lives and who were interested in the concept of academic research. All the women respondents appeared to be middle class and there were no women who claimed, or appeared, to be working class, lonely or isolated in retirement. The houses I visited ranged from comfortable semi-detached on middle class estates, to country cottages and large, detached houses. All the women were white and none were from ethnic minorities, all had either friends or family, with whom they claimed to be in regular contact, and most were married. Few had any apparent disabilities and most appeared to have their own transport.
By observing the similarities and differences between my subjects in more depth, this section also helps to draw attention to the women who were absent from this research. There could have been others who preferred not to be involved but who were from a wider social background. Interviews with a more random sample of retired women in order to discover women with reasons for not learning the Internet would help to take this research further (see Chapter Seven – Conclusions and recommendations).

TYPOLOGIES

Features of these case studies are reflected in the four typologies below, which offer another way of illustrating the fusion of gendered roles, age and technology issues within the lives of older women. Despite an awareness of the limitations of developing typologies from small samples (Sixsmith, 1994), I feel that they offer another way of understanding the differences as well as similarities in the ways that older women approach unfamiliar technology, bringing out commonalities and divisions among the respondents in a thematic way. I have identified four typologies from the data collected; the wise matriarch, the symmetrical wife, the family communicator and the practical tool user.

**Wise matriarch**

Several of the women felt that their position as a knowledgeable grandmother was threatened by their lack of ICT awareness. Although some wished to protect their grandchildren from dangerous websites, the most common perception was that it was disempowering to be told how to use this technology by a small child. “I didn't like the idea of my children knowing something that I didn't, particularly now it's my grandchildren and my great grandchildren” (See case study - Doris). Another woman saw it as an essential means of communicating with her grandchildren. “I don’t want them to think ‘Granny doesn’t know anything about this.' I would like to think that they could send me an email and I could reply to them because that seems to be their way of communicating. Not so much my generation” (Hannah). It would seem that, where the respondent was the centre of an
extended family, she felt the need to negotiate this new skill in order to maintain a level of authority, caring for and teaching grandchildren, as well as communicating with younger generations of the family.

"Symmetrical" wife

The term "symmetrical family" (first coined by Young and Willmott in 1973) refers to the changing family form in Britain, where husband and wife share domestic roles and responsibility. Older women who have shared marital roles report a stronger sense of well-being than those with rigidly demarcated gendered roles (Davison and Neale, 2001). Several respondents' husbands were able to use the Internet, leading to the growth of interest of the respondents themselves. Other couples were both starting from the beginning, however, with the opportunity to share use of the Internet. However, tutors noted self imposed gender segregation in the learning situation, by some couples, with women allowing their husbands to do the practical tasks while they wrote notes (Kelly, 1987; Margolis and Fisher 2002). This suggests that, even with the same opportunities for learning, computers may fall into the husband's sphere in a division of technological skills within the marriage. The respondents in this research whose husbands were with them did not mention this, appearing to enjoy learning together. Further research, observing classroom behaviour, would be necessary in order to assess the tutors' comments.

Family communicator

Email seemed to have been adopted as a role of the wife in several partnerships, suggesting that Bott's (1957) definition of "segregated roles" between husband and wife still applies in some marriages, with modern technology supporting, but not changing, the designation of the role of communicator to the wife. Several women referred to husbands who only used computers at work and who would not attempt to build on skills learned in the workplace. The separation of work and learning from retirement reinforces feminist studies of the eighties which observed that it is far more difficult for women to separate work and leisure. The same seems to be likely for retired women, who use whatever (office) skills they have for the good of the family e.g. by becoming unpaid "social secretary"
to their husband in retirement (Green et al., 1990, Deem, 1993). However, this may be seen in a positive or negative way. The added responsibility may be regarded as either a burden or as empowerment in that the role of communicator places that person in a more prominent and visible position within the family and may change the power balance within the marital relationship.

Practical tool user
Although most of the women took a functional approach to the Internet, those who were single, widowed or divorced had a stronger motive to be able to manage their own affairs, keep in contact with their families and follow their own interests. These women appeared to recognize the usefulness of the Internet as a means to an end and as another way supporting their independent lifestyle. They tended to have focused on learning specific skills to be used later. Barbara wanted to buy books and Lesley wanted to bank online and their new skills were intended to become a useful part of their everyday lives. Green (2001) sees the everyday use of the Internet as the measure of its impact and this would need to be the subject of further, longitudinal, research. A small minority, such as Beatrice, welcomed any new and useful “gadget” and was confident enough to absorb it into her daily life. Most of the women fell into this group to some extent, as they regarded the Internet as another tool to be examined for its usefulness and not as a status symbol or a leisure pursuit in itself.

Having established some background information with regard to education, work and relationship to technology, the following section presents findings which relate to the three themes addressed by the research questions.

MOTIVATION

This theme is addressed by the following research question: What motivates older women to formally learn to use the Internet, within their lived experience of age and gender? This research question is also
informed by less overt questions about the background and personal interests of the respondents and their existing computer skills. This section also brings out the differences between the women who, although labelled as "retired" were not a homogeneous group, a point made by Davison and Neale (2001). Their motivation reflects different family circumstances and wider social structures which have helped to shape their opportunities and experiences.

**Practical motivation**

When initially asked why they wanted to use the Internet, the women outlined a range of practical ways in which it could fit into their lives, (See Appendix XI). Regarding it as a functional tool, most saw it as a supplementary communication system for keeping in touch with their family and friends. This supports Moyal (1992) and Lohan (2001) who relate women's adaption of the telephone to their family and social roles. By increasing the range and scope of this communication to anywhere in the world, the boundaries of the private sphere may be extended and relationships maintained more easily and cheaply than by telephone (Frissen, 1995).

**Gaining access to knowledge and information** were mentioned in the context of supporting existing hobbies and interests and for booking tickets for holidays or outings. It may be seen as a way of supporting leisure or extending established interests rather than a recreational instrument in itself, and no-one expressed the wish to use chatrooms or to play games online. Medical information had also been sought but this was stated to be on behalf of family members rather than for themselves. In some cases the Internet class was just one of a variety of courses attended for social reasons, with friends, or even to meet new friends (Deem, 1993). As a way of shopping or banking, there was some cautious interest although it was generally felt that the social and physical benefits of going into town were important. Future use of these services were appreciated, however, for those too old and disabled to go out although no-one claimed to be dependent on it now.
Gender issues
Some of the respondents offered their own views on gender differences in motivation to attend a course to use the Internet and although this research does not aim to compare genders these are discussed as they show how the women felt about this, rather than as part of my own findings. A separate study which interviewed retired men would complement these views but would not inform these research questions (Age Concern, 2002 has addressed this to some extent).

Vivienne felt that men want to learn computer skills on their own, whereas women are prepared to accept instruction and Sandra felt that men would not attend a beginners’ class in technology because they would expect to start at higher levels.

“It’s a “man thing”. I don’t think they like to go to classes. I suppose I shouldn’t generalize, but I think women on the whole are more inclined to let people teach us. There were only three men in the class and the rest of us were women. I think men don’t want to admit that they can’t do it on their own.”

Vivienne

This section discusses motivation with relation to gendered marital roles. Although not asked as a direct question, husbands appeared to be significant motivators, either through direct encouragement, lack of support, or absence. Although some husbands were able or were learning to use the Internet with their wives, many others husbands were not computer literate or interested in the potential of the Internet, (See Table 6.3). Later interpretation links this to gendered empowerment within the family.
Table 6.3
Summary table of marital support for respondents’ interest in computers

<table>
<thead>
<tr>
<th>Support/lack of support of partner</th>
<th>N = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband interested</td>
<td>6</td>
</tr>
<tr>
<td>Husband not interested</td>
<td>9</td>
</tr>
<tr>
<td>Husband’s interest not known</td>
<td>1 (Jean)</td>
</tr>
<tr>
<td>Living alone (single, divorced or widowed)</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 6.3 above shows that only six of the women had husbands who were interested in using the Internet at home. This did not mean, however, that they were willing or able to support their wife’s learning. Of those who said that their husbands were not interested some husbands appeared to be quite vehemently opposed to computers and the Internet, totally rejecting any suggestions that they might learn.

“My husband, he doesn’t know how to turn it on for a start, and the keyboard, I mean, he just looks at that. He says ‘If anything happened to you that would be down the tip.’ It’s awful isn’t it.” [laughs]

Beatrice

Out of these couples, some of whom had been given a computer by their children, it seemed that the wife was more inclined to use it to keep in touch with family and friends and Linda reported that she used email to contact her husband’s friends and relatives as well as her own.

Wives whose husbands refused to learn to use a computer seemed surprised. Some were puzzled that a man who was able to mend electrical equipment or garden machinery and monopolize the video could be so averse to this type of technology. Linda had tried to encourage her husband to see it as a tool, but he appeared to see it only as a recreational toy.
“My husband’s got a shed full of gadgets, like drills and screwdrivers and that type of things. I tried to tell him ‘Look on it as a gadget’, but no, he’s not bothered at all. He’ll play games on it.”

Linda

Marina’s husband, however, did not see it as part of his life at all.

“You know, men take over don’t they? Not with the computer though, he doesn’t want to know but with the video I don’t get a look in. He’s not at all interested in the computer, he’s more an outdoor type.”

Marina

Gloria’s husband still worked and, although he had to use a computer as part of his job, he saw it as part of his work, rather than as having a role in his time at home. His use of tools seemed to be restricted to those used by men for manual jobs around the house and garden.

It seemed that where couples saw the computer and Internet mainly as a means of communication, the husband became disinterested, seeing it as outside his role within the home. The wife, however, made an effort to use it to maintain her role in the private sphere as family communicator or matriarch, (see Typologies above). This willingness to learn to use a new tool for social communication is similar to the adaption by women of the telephone (Lohan, 2001) which like the Internet, was originally developed for the masculine, public sphere of the military and business.

**Family influence**

Data from several categories revealed that the family played an important role in encouraging or motivating the women to want to be able to use email and the Internet. As noted earlier, grown up children, particularly sons, seemed to play an important practical part in providing a computer, (See Table 6.2) often their own old one, installing it and encouraging Internet participation.
The desire to maintain communication with the family may be the driver to learn ICT and it is this personal perception of the social consequence of the information society which is at the heart of this research. Social exclusion and the separation of grandmothers from their children and grandchildren by a technological knowledge divide underlie many of the motivations reported by respondents. This may be seen as a loss of power, status and confidence in their store of wisdom, which is stereotypically attributed to the traditional grandmother/older woman. They may see ICT as a means of maintaining their presence with both family and friends and as a means of keeping abreast of rapidly changing knowledge. These reasons may underlie the overtly instrumental motivations for their interest in the Internet (see Appendix VIII).

The family roles described above show that most of the respondents had family connections and ties, which were central to their lives. Many had been prompted to learn to use the Internet by their children, although they felt that they needed expert tuition, backed up by family support. Diversity of family circumstances influenced their attitude towards learning the Internet. Some were living alone and needed to maintain independent lives, while others were learning the Internet on behalf of their marriage partnership. Some were trying to match their husband’s knowledge and a few were learning together as a couple.

Age related issues
Not many of the women claimed an identity as an “old woman”. In fact, the two oldest women, both in their eighties and living alone, appeared to be strongly independent. This bears out the feminist perspective of Rich (1992) who observes that older women reject unattractive stereotypes of the old and foster a more positive self image. These two women appeared to see the Internet as a means of maintaining and developing their existing identities and multiple social roles, both because and despite of age (See section on quality of life below). However, most women saw themselves as old in terms of learning the Internet, recognizing that younger people found it easier and that they needed to make a special effort.
It was clear that some respondents were concerned with the social aspect of ageing, describing their fear of being “left behind” and of disability, which shows an awareness of social exclusion in old age. Sandra, alone, mentioned the need to prepare for widowhood; “I am going to end my life alone so now I am starting to do things that are going to help”. She noted the gendered helplessness of many of her friends whose husbands had died, pointing out that they are not technically competent because their husbands had always driven the car or used the computer (See Case Study - Sandra). Learning the Internet was seen as a means of challenging this ideological link between masculinity and technology which fostered women’s dependency on men (Grint and Gill, 1995).

Vivienne expressed her fear of social exclusion in connection with the sharp sense of loss of her working identity. She admitted that she had no specific practical reason for wanting to learn the Internet but saw it as a learning tool which she needed to master.

“I think even though I’ve been retired twenty years I miss the everyday challenge of work. And it was coming, everybody was going to be involved with computers and the Internet and I wanted to be there too. I think it is important as you are getting older that you keep learning and using your mind, and it was a challenge, I didn’t want to be left behind, I wanted to be sure that I could keep up with things, rather than fade into the background as someone who couldn’t do things.”

Vivienne

This fear of being “left behind” was expressed as a fear of exclusion rather than a desire for inclusion and was given by respondents from the youngest to the oldest, in connection with awareness of a need for a new literacy, as observed by Au and Raphael (2000).

Most of the women actually used the words “left behind”, leading to an “in vivo” category in the Stage I coding, although further prompts revealed
more depth and breadth to this phrase. Some of them were specifically referring to keeping up with the computer knowledge of their families, mostly their children and grandchildren. However, there were also some references to keeping up with a rapidly changing world in which they felt old and out of date because they did not understand what everyone was talking about, on television, or among their family and friends. They also felt that they wanted to gain the same benefits from using ICT that others had.

"...But I think you feel a little bit left out, I admit that, if you haven’t got an email address. It used to be the fax... But if you watch television they are always talking about it and giving a web-site address. But it isn’t easy. It’s just something which has come about and you have to deal with it – you can’t be left behind."

Mia

Marlene was more specific about the need to access essential information, feeling that, eventually, it will be something that everyone will have to learn, regardless of age.

"I'm glad I've done it because I felt that we were going to be left behind. ...And I feel, I know that we're older, but as the time's going on you're going to have to use a computer more than ever. Really, in years to come you're going to have to do your banking and everything. It will all be on the computer."

Marlene

The discourse of technology was seen as a language which had to be learned in order to remain included in social groups;

"... I suppose it’s a matter of pride as well. If you’re in a mixed group of people, so often the conversation gets round to computers and if you have no idea of the jargon
you get completely left out. You don’t know what they are talking about, it makes you feel old, isolated, completely left out of things. I think that was my main motivation.”

Vivienne

Although hinted at by some in this way, the physical problems of old age had not motivated many of the women, who were mostly relatively mobile and able to maintain their lifestyles, despite the fact that some of them were over eighty. All but one were able to drive and most had access to a car. It must be recognized that there is an element of self selection among the respondents on courses held in an adult centre and accessibility of the venue is also a factor which will physically exclude some who may wish and need to acquire Internet skills and whose reasons for not doing so would be interesting to research (see Chapter Seven –Conclusions and recommendations).

Marlene was one of the few who was motivated because of disability. Her husband was deaf but could not learn in this type of class so she was there on behalf of both of them so that she could show him how to email. She pointed out that it would empower him to be able to complain about services etc. via email instead of having to rely on her to telephone for him. This highlights the parallel between age and disability, where lack of physical and mental agility lead to communication problems and consequent social exclusion (Barton, 1996). Begum (1995) writing from the perspective of a black, disabled woman, found that, even within experiential feminist research, the difference of disability was not well documented and this also appears to be the case for age-related disability.

To summarise, although the respondents offered practical motivations for learning the Internet, their comments show a determination to avoid the identity of someone “who couldn’t do things” (Vivienne) or who is seen as “an out of date person” (Ann). This raises the possibility of an underlying anxiety which may be related to maintaining the social, family and personal aspects of identity and a rejection of the association between old age and the loss of power and control over one’s life. This suggests that their
motivation to learn the Internet was not merely because of its practical uses but because it is seen as a symbol of inclusion in contemporary society.

EXPERIENCE OF ATTENDING AN INTERNET COURSE

This section summarises the findings relating to Research question number two: How can feminist epistemology inform an understanding of the experience of older women learning to use the Internet through formal teaching? This relates to the experience of attending the Internet course itself and also presents data from interviews with tutors, in order to offer a more complete impression.

Venue and timing of the courses
As the courses being discussed were different this is not surprising, although reflections within the same course also differed quite widely. The courses themselves differed in delivery and time, although all were in the daytime. A Saturday course, running between 10am and 4 pm, a five week course running on a weekday afternoon, between 3.30 and 5.30, a five week course running between 11 am and 1 pm on a weekday morning, a ten week module as part of a longer course in computers and one student (for the purposes of comparison) who had twelve sessions in her own home, with a personal tutor (See Appendix IX). Some of the respondents noted gender and age issues which motivated them to learn during the daytime, when they felt more able to concentrate. Also, some of the women had commitments which meant that they preferred a shorter course, which would fit in with holidays, family visits or other objectives.

Access varied between venues, with two centres using upstairs rooms, with no lift. Computers were on wide benches around the walls, with one per student and the tutor’s desk in the centre of the room. However, one room was an “L” shape which mitigated against clear communication with a class of ten people. Another teaching venue was in a smaller space, with open access to the public as well as classes running. With only three in a group the atmosphere was more informal, with a cup of coffee offered at the start
of the class which Ann, one of the oldest, particularly appreciated. There were no serious complaints about the classroom atmosphere which was accepted by most as a normal teaching environment in which the women felt comfortable.

Opinions on the ideal duration of the course differed. Katherine thought the Saturday course was rushed, complaining of long gaps where she was waiting for teacher to come to her. As a complete beginner, she would have preferred personal tuition. She said that she did not really achieve what she wanted from the day, but recognized the potential. Aged seventy-five, she was slightly deaf, which may have affected her experience. However, Mary, who had joined a five week course, (but dropped out after three weeks) felt that the weekly course was disjointed and would have preferred a single day. However, she was about fifteen years younger than Katherine and already quite experienced with computers, as well as the Internet. On the other hand, Gillian felt that the five week course was too short to learn everything and Lesley felt that a more intensive course would maintain interest for retired people, (with whom she only partly identified).

"...they were retired people on the course and I think if it had been every day, five afternoons in one week I think the build-up would have been better. Only once I came home from the class and thought 'I'll see if that works'",

Lesley

This disagreement shows the diversity between the women. Mixed levels of skill, ability and expectations varied widely and may also be affected by age related stamina and other commitments, making it difficult to organize a course to suit everyone.

Respondents described the teaching methods as being roughly the same between courses. The tutor would usually explain some new aspect of the Internet or email to them and show them how to use it. She would then come round to each individual to sort out any problems and answer questions.
The degree of satisfaction with this method of teaching varied between students and some tutors appeared to be more successful than others in its application. For those with very little or no computer or keyboard experience, personal time with the tutor was more important while others were able to understand and carry out the tasks described without extra help. Alice was satisfied that she had learned everything that she needed to know:

"She did show us most things. Maps, travel, getting from one place to the other, stops on route and we printed it out with all the details. Buying tickets for the theatre, which were the cheapest. Buying train tickets etcetera. All by cutting off before we booked them. No, she did show us quite a lot. I can't think of anything else I needed."

Alice

It became clear that there was a wide range of prior experience of computers and the Internet among the respondents who had identified themselves as "Beginners". Some of the women had no experience of either and had not used a mouse. Katherine was particularly disadvantaged by having no computer at home and Christine because she did not have an Internet connection. Others had keyboard experience and some had experience of Internet and/or email already, but needed to know some basic information. This proved to be frustrating for those at the two extremes of prior skill and aptitude, and for those who lacked patience with the pace of the class, which had to cater for the slowest.

"If someone gives me the basis, then I can have a try at it...I like to work like that. ...We had one or two there...I don't think they understood...I don't think they knew anything. I don't mean it disrespectfully but they were real thickos. They were older than us as well..."

Pauline

These comments suggested that the older learners had their own stereotypes of each other within the learning situation which appeared to relate to age
more than gender. The time of the tutor was sought or needed by some more than others but individual attention was appreciated by even those with prior skills, like Gillian, and particularly by Barbara, who had chosen to employ a personal tutor, due to her age (84), and lack of suitable classes in her area.

**Approaches to learning**

This section discusses the efforts made by the student respondents towards learning the Internet prior to enrolling for a class, which could also be viewed as a motivation for their wish to learn the Internet from a professional tutor. One of the oldest respondents, in her eighties, had tried books, but found that face-to-face teaching was a more successful way of learning, a view shared by several others.

"The books assume you know too much and if you need to look something up it is because you don't know it. They assume you know the step before and, of course, you don't, I've found. I have had books for beginners but whenever I have tried to resolve something with it, it hasn't really worked."

Ann

Several respondents mentioned the ways that they tried to remember what they had been shown. Doris's tactic was making what she called "idiot cards" to remind her of specific processes. Although very frightened of the Internet at first, she admitted to feeling more confident if she knew the information was on her cards. Some of the respondents noted that they would like a stronger structure to the class and some set their own "homework" to help them to retain what they had learned.

"I tend to work better if I have to do something. If you have to achieve a goal then you do put more into it, don't you."

Sally
This was echoed by others who felt that they would have learned more if they had the motivation to practise at home. Sue, as co-ordinator of the computer courses for the centres in this research, showed me a photocopied booklet, which outlined some of the basic information from the course, such as how and why to use a search engine and told me that this had been given to all the course participants (See excerpt in Appendix IV). It was informative and informally presented, but contained few ideas for extending knowledge. However, not many students mentioned a handout and when asked, not all appeared to have received one,

Gender and age may both disadvantage this group of women in that most of them found the language of computers difficult to understand and needed to learn the meanings of “mouse” and “surfing” which are used in an unfamiliar way. The masculine discourse of technology is described by Lowe Benston (1992), Cockburn (1992) and later McKie (2000) as disempowering for women, and could partly explain the lack of confidence and diffidence with which some of the respondents regarded their ability to learn it. Turkle (1995) observes that the technological climate is becoming more inclusive but others still feel that the discourse is exclusively male (Margolis and Fisher, 2002).

Student difficulty with motor skills was observed by both students and tutors, which slowed the pace of classes, eg. using the mouse, which needs rapid finger movements and hand and eye co-ordination. The assumptions made by the manufacturers of computer software about the physical and mental agility of users, however, establishes the range and options of even basic skills which have to be negotiated by all (Longman and Stuart, 1995). Having to learn both fine motor movements and an unfamiliar computer language may explain why many older women do not choose to learn it, as shown by Age Concern’s research in 2002. Nevertheless, my findings show that the strongly motivated were prepared to try to negotiate these problems, often with the help of their peers. When asked the final question, relating to what she saw as the best way to learn the Internet, Gloria pointed this out as a benefit of group learning.
“In the class I tended to work with the lady next to me, because we always had the same computers. I would teach her and she would teach me. She would say ‘I didn’t go that way I did it this way’. It was lucky that it was a small group and people were very willing to help.”

Gloria

This illustrates the benefits of peer group learning for women (Deem, 1993) and for older people (Brookfield, 2000) and also suggests the social aspect of this type of learning experience.

Social aspects of attending a course

The respondents were, to some extent, aware of others in the class, observing difficulties experienced by Christine and the objectives of some of the other respondents. The coffee break proved to be a good opportunity for social mixing, which was hampered in the classrooms by the nature of the class and room layout. Only one person had specifically mentioned meeting others as a motive for attending the class, but several others found a break welcome, offering a chance to exchange views on the course.

Marlene appreciated the benefits of this informal time, when students could help each other as a peer group.

“The thing is, I wanted to come to enjoy it and if you have a coffee you get to know some of them as well. And they'll come out with information that you don't think about, or they'll say something and you think ‘Well, that's a good idea, I'll try that’. You know, I think you need your companions as well.”

Marlene

Doris also noted the comforting aspect that “we are all as ignorant as each other”. It was Vivienne who appeared to see the learning experience as more than just what is in the curriculum, observing the shrinking of her
social life after retirement from work and recognizing adult education as a means of adding to her friends.

Several others saw the coffee break as an intrusion, feeling that the time spent in the coffee bar was wasted Internet time. This depended on circumstances and motives. Mary, who was competent and businesslike, would have preferred to have had no break in the two hours and for Sally, newly retired and with a close-knit family and local friends, the break was frustrating:

"I mean it was two hours and people would go in the middle for coffee and I thought, 'ohhh [sounds exasperated] - 3.30 till half past five - I don't need a coffee break at half past four, thank you.'"

Sally

Sally's dilemma was that she would have liked to make friends without wasting the tuition time. The Internet itself could offer the means to do this, if participants were encouraged to swap email addresses to contact each other after the course.

The break may have been disadvantageous from the point of view of the tutor Pat, however, as it appeared that Gloria and the other members of the class had been sharing their grievances, which may have given them the confidence to later articulate their views to the Principal.

Respondents' evaluation of the course
The most commonly expressed view was that most of the respondents had enjoyed the courses and had either fulfilled their aims or learned something. Most felt that the experience had been a good one and there were few who were seriously dissatisfied. It appeared that there were many different expectations of the courses, some people wishing to learn to use the Internet and others to email (see Motivation section, above).
The open ended question “If a friend wanted to learn to use the Internet, what would you suggest?” was asked to encourage the respondents to evaluate the course as suitable for their peer group. The majority believed that learning in a class was the best way, and felt that the courses had met their personal requirements. Even those who had criticized aspects of their course or tutor, felt that this was a good way to learn these skills. However, the written word was seen as important in supporting this way of learning, with a booklet, handout or notes being expected, which not all of the tutors had provided. This need may partly relate to age, prior experience and ability to retain information. Difficulty in remembering, seeing to write notes and slowness to perform activities meant that some were unable to practice what they had learned at home. Sally made the general observation that structure was needed for complete beginners.

“I felt the course, on reflection, was very, I don't know if ‘airy fairy' is the right word but not tightly structured,...there was one lady who had no skills at all and I don't think she got much out of it to be honest.”

Sally

The learners’ evaluation of the course inevitably reflects on their tutors and the following section adds an interpretation of interviews with some teachers of the Internet.

IMPACT OF THE INTERNET COURSE AND THE INTERNET

This relates to research question number three:- In what ways do women perceive the personal impact of learning the Internet in relation to their sense of gender and age identity? As the aim of this research question is to consider the evaluation of the women themselves on the impact of this course and its content in personal terms, I did not use the “before and after” approach of the pilot study. I felt that this would have placed me in a different position, as the evaluator of progress, leading to a simple assessment of teaching or learning outcomes.
In fact, most of the courses had no assessment criteria, and their aim was solely to teach the basic skills of using the Internet and sending email. One course issued a certificate for assessed coursework, but it was generally seen as unnecessary by the respondents, who felt that, in retirement, they did not need a qualification. Two particular questions were intended to prompt responses (See Appendix II) but categories grounded in the data revealed more diverse aspects relating to the impact of this technology on their lifestyles. The first sub-sections of this chapter describe the respondents' views of whether or not they achieved their aims and how they felt they would use the Internet in the future. These are followed by a feminist interpretation of the data with relation to the imperatives of the third research question, namely 'sense of gender' and 'age identity'.

Achievement of aims
The basic skills taught were to log into the Internet, register an email address and to use search engines and most of the respondents who had attended courses had done this. Questions about the achievement of aims led to some specific answers but it seemed that the impact of the course reflected a change of attitude, or a growth of interest in the Internet, rather than particular learning outcomes.

It was not until I transcribed the interviews that I realized that some of my questions were anticipating a closed, positive answer but fortunately the respondents were articulate enough to give more complex answers than some of the questions deserved, for example: "So would you say that you achieved what you wanted to?" to which Vivienne answered:

"Only in the fact that I came to the conclusion that there wasn't anything there, hiding from me. There seems to be a great mystery about the Web. I suppose I came back with the conclusion that nobody was going to just put it in my hands. I was going to have to search for it myself."

Vivienne
Linda’s response was more specific, claiming that the most useful skill she learned was how to send and receive attachments, something that she had wanted to do for some time. Other respondents were able to say that they had achieved the goals that they set out to achieve, probably because they had focused on their objectives.

**Impact of the Internet classes on confidence**

Most of the women felt that attending an Internet class had helped them to feel more confident and positive about using the Internet and sending emails. No-one reported having been discouraged from using it by learning more about it, even those who had not found their course particularly valuable. Several said that they felt less afraid of it because they had attended the course, although the women tended to be very modest about their achievements, and self-effacing about their newly acquired skills. As Marina noted, “I am the sort of person who has to understand something completely before I can say I am competent.”

I asked the question: “How would you say that your feelings about computers and Internet have changed since you did the course?” to which Hannah responded, with caution:

“I think I feel more positive about it now. I still feel a bit anxious about it but I think I want to do more now, order things, order my groceries over the Internet. Just to see if I could do it.”

Hannah

Jean and Beatrice were interested and determined to learn to use the Internet, and had not struggled as others had.

“I loved it right from the start. I find it absolutely fascinating. It gives me great satisfaction to learn to do things on it. I think ‘I can’t do this or that’ but then I sit there for ages and I do it.”

Jean
Doris was very deprecatory about her efforts to learn computers and the Internet, although she had attended a three term CLAIT course as well as an Internet Saturday School and another Internet course. She denied an improvement in confidence, but admitted that she was “not quite so ignorant” and able to email her daughter in Canada to “chat”, which few of the others reported that they did regularly.

One person who mentioned gaining confidence from attending the class, rather than specifically from what she had learned, was Gloria. This may have been true of any course, but one involving some technical skill may have especially helped her to regain the confidence associated with her lost professional identity as a deputy headmistress.

“When I go to the computer class I take my briefcase and I feel really important again, because I’ve been retired seven years from school...it’s just because of the briefcase, and jacket and high heels. It was really strange. Not that I want to go back to work, it was my choice that I finish, but I felt professional again.”

Gloria

To summarise, it appeared that the course and an achievement of this particular goal offered more than the basic skill learned. The main impact on the women seemed to be a reduction of the fear and uncertainty that they had felt when experimenting at home and optimism that they could now develop these skills to make use of the Internet in the future. Gloria’s association between the class and the professional identity that she felt as a deputy headmistress shows that retired women do not lose touch with their earlier “selves” and should not be underestimated.

The many fears expressed about being “left behind” suggest that the women miss being part of the world of work, with its responsibilities and opportunities to keep abreast of new developments in the public sphere. Learning the Internet is a way of regaining a sense of power and control over life, which has been weakened by retirement and age stereotypes.
There was still a degree of suspicion and a sense of distance from the Internet and several grandmothers felt that they could now protect their grandchildren from its dangers. Gillian was determined that it should not become an “obsession” and others also seemed wary of becoming addicted to it in some way, stressing that they were not going to “waste time” on it when there were other, more important things to do. This suggests an ambiguous relationship with the Internet, with the women seeing it partly as a useful tool and partly as a dangerous toy.

The tutors added their perspective to the impact on the women in terms of gender and age identity (see previous section). Jackie related it to empowerment both within the family and in a wider sense.

“The grandchildren are astounded and proud of their grandmothers. And then again there is this communication factor of being able to email relatives abroad...and photographs. They have got communication with the outside world, it's better than sitting in front of the telly because you are looking for information that interests you. You are in control. You can look up what you want.”

Jackie

This observation bears out research showing that control over one's own life is psychologically beneficial. Even a small amount of personal agency resulted in an improvement in alertness and longevity among old people in a residential home studied by Langer and Rodin (1996). The practical skills learned by the respondents and the impacts that they reported have the potential to maintain and improve their control over some aspects of their lives, both now and in later old age which may have both material and psychological benefits (See section on quality of life, below).

Use of the Internet in gendered everyday life

Everyday life in post-working retirement may be regarded as leisure time. However, for retired women, it is still difficult to compartmentalize leisure time as everyday domestic work in the home is still seen culturally as their
responsibility (Green et al., 1990). Feminist research has identified a gendered relationship to living space within the home; men seeing it as a site for leisure and women for work (Wajcman, 1992). As women inhabit the gendered living space of the kitchen and living room, domestic technology developed for use by women has been situated within it (Kirkup and Smith Keller, 1992). As women have taken over the use of the domestic telephone it has moved from its early gender neutral position in the hall into their living space, including the kitchen, for ease of use (Cockburn and Furst Dilic, 1994).

Leisure technology has come to dominate shared living space, as the focus of the living room has changed from the fire to the TV, but computers encourage a more private, individual relationship which may partly explain why they are less likely to be situated in communal living space.

It was not clear whether the respondents' computers were sited for practical or other reasons. Most of the women owned a computer at home but it was rarely located within their gendered living space at all, usually being in a (gender neutral) spare bedroom, suggesting that neither the respondent nor her husband (if she had one) made everyday use of it (see Table 6.4). Although they are much larger to site, I felt that this partly reflected their limited integration into the everyday lives of the respondents.
Table 6.4

Location of computer in the homes of the respondents

<table>
<thead>
<tr>
<th>Location of computer in home</th>
<th>N = 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>In living room</td>
<td>2</td>
</tr>
<tr>
<td>In another room (bungalow/flat)</td>
<td>3</td>
</tr>
<tr>
<td>Downstairs in another room (house)</td>
<td>2</td>
</tr>
<tr>
<td>Upstairs in a bedroom</td>
<td>8</td>
</tr>
<tr>
<td>On upstairs landing</td>
<td>1</td>
</tr>
<tr>
<td>Under the stairs</td>
<td>1</td>
</tr>
<tr>
<td>No computer in house</td>
<td>1</td>
</tr>
<tr>
<td>Not known</td>
<td>5</td>
</tr>
</tbody>
</table>

This supports Mackay’s research into media consumption in Wales which also observed that computers were kept in marginal rooms (Mackay, 2003).

The two whose computers were in the living room were the two oldest, both living alone, although this may be due to ease of physical access, rather than an acceptance of the computer in everyday life. Several of the women referred to “going on the computer”, (Doris) seeing it as a means to a specific end, incorporating the special effort of going upstairs, switching on, logging in and addressing technology in order to achieve a useful purpose, e.g. booking a holiday. This suggests that it was regarded quite formally as a functional but peripheral part of home life rather than an item of everyday equipment or a leisure pursuit, bearing out research that leisure technology is mainly associated with young, white, middle class males (Mackay, et al., 2001; Scott, et al., 2001).

Several of the respondents invited me into their kitchens for the interviews and these were large and comfortable, with a table, chairs, often a television, and a telephone extension. Their living rooms tended to be neat and tidy, most with a three piece suite and a television. It would have been difficult to have fitted a computer into these living spaces and although Gloria had used the Internet for downloading recipes from a cookery programme, her computer was located upstairs, away from the kitchen.
It was clear from the interviews that few, if any, of the respondents used the Internet on a daily basis. Instead, its use appeared to be task orientated, as a means of communication, or a way of finding particular information, alongside, but not replacing more familiar methods. When asked if the Internet would make much of a difference to their lifestyle, most answered in terms of its practical uses and shortcomings, often comparing it unfavourably with their current methods. For example, Beatrice and Gillian preferred the experience of choosing their own shopping and Sally found it quicker to use teletext for cinema timings.

The majority did not yet see CMC as a replacement for the telephone but rather as a supplement to it. In terms of everyday use, the telephone is more convenient and accessible, usually having extensions in women’s gendered space (kitchen and living room) and its more personal nature was mentioned by some, who wanted to tell how their children are by the tone of their voices. Lesley on the other hand found email useful for leaving messages as her children’s telephones were always engaged. However, Mia preferred to write because of the more permanent and personal nature of a letter as her family live in Switzerland.

“I would say more intimate things in a letter. I think it is a completely different form of communication, like a phone call. Things are said and they are gone and forgotten. You wouldn’t keep an email. I love to send and receive a handwritten letter. It’s a completely different thing.”

Mia

Katherine’s problems with using the telephone introduced the perspective of the elderly and hard of hearing, also mentioned by Marlene with regard to her totally deaf husband.

“I hate doing things over the phone. You haven't got it in writing. I think I've got to the stage in my life where things go too fast for me and I'm saying ‘What did you say?"
Can you repeat that so that I can write it down? I like things on paper. I suppose I've got a visual memory.”

Katherine

Katherine already used text messaging and she felt that the semi-permanent nature of emails would give her time to read and respond to communications. This introduces the elements of individual choice and need, widening communication options for people with particular needs or physical limitations.

Few said they could or would “chat” on email, preferring the telephone because of its more personal nature, but it was too soon to tell whether or not they would all find a place for emailing in their everyday contact with family and friends. However, Doris, who is a fast touch-typist and a central family figure, admitted to sending “newsy” letters to her family, some of whom live abroad. Others, like Mary, preferred to telephone but would use some email for certain occasions like quick messages or requests to phone. Pauline noted that she and her brother in Australia arrange a time to hold live email “conversations”.

Impact on their communication habits is not likely to be immediate and Gillian pointed out that as more of her friends went online the opportunities to email socially would increase. As the telephone has provided a real choice in communication, the Internet will add another option for freedom from gendered restraints of being trapped in “a shrinking private sphere of print and of proximate, face to face contact” (Scott, et al., 2001, p.12).

It appeared that the Internet and email were seen a means of communicating which some intended to explore, to see if it had a place in their lives. Others had already concluded that they preferred different methods and it may be that, for some, text messaging is simpler and portable. Teletext information is accessible from the television in the comfort of the living room and one person reported that they now email on the television screen.
The student respondents appeared to be receptive to new technologies and able to select which suited them the best, and to discard what they did not see as useful. Although some of the women saw Internet technology as exciting they seemed to be referring to its potential to complement already established identities relating to their gender and lifestage, rather than as a way of constructing new ones. They appeared to be negotiating a relationship with this unfamiliar culture of technology, using what Turkle (1995, p.56) described as “soft mastery”. In terms of regular, confident use, the women were just beginning to negotiate its relevance to their lives but appreciated that they had acquired a new tool. Physically and psychologically the Internet is still on the periphery of the daily lives of these women as they tentatively “violate a cultural taboo about being involved with ‘machines’ ”, and used as needed rather than explored for its potential (Turkle, 1995, p.56).

Other studies have enquired into the impact of ICT on family life but have focused on younger people with children (Mackay et al., 2001). Although gender has been an issue for some (Green, 2001), they have not addressed the technology issues for households without the imperatives of children and workers. This research adds a post-work lifestage perspective as well as the depth afforded by an interview approach (Scott, et al., 2001).

The Internet and gendered marital roles
Several respondents mentioned their husbands in the context of their lack of interest in computers, highlighting that they were learning something that their husbands could not or would not attempt. This gives an interesting perspective on the relationship between technologies and power within a marriage, where the husband is usually seen as more technologically aware than the wife (Walker, 2000; Age Concern, 2002). Although this research found that husbands were dominant in the use of electric tools, some clearly did not see the computer as within their sphere of interest or responsibility. This contradicts the findings with regard to younger households (see Silverstone and Morley, 1990; Mackay, 1997, 2003 and Silva, 2000 discussed in Chapter Three – Literature Review).
The gendered family roles of an older generation may be more securely founded on traditional divisions, such as cooking and home maintenance, but it may be that some women who, by retirement age, have become more adaptable through coping with changing, multiple and flexible roles, as observed by Davison and Neale (2001), are more able to meet the challenge of a new innovation in the home than their husbands. This may have implications for a balance of power connected to the control of this increasingly important domestic resource. With the ability to use the Internet comes the power to plan and organize, to shop, to manage the home and finances and the potential growth of personal freedom. As physical strength declines, familiarity with the Internet may become the most valuable household and personal skill. However, it is how the Internet is used that will empower the user, rather than its presence in the home. Rigidly gendered marital roles may make it more of an onerous secretarial task or another domestic chore which women take on as another gendered task (Lohan, 2001).

Empowerment issues for older women
Finally, there were some outcomes which had not been anticipated by the respondents and which were drawn out in more developed questions. These revealed an awakening of an awareness of the potential of the Internet, which surprised and excited some of them.

“It was finding that I could learn things on it and now, as I say, the convenience of it because I have found that if I want to I can shop on it. I am sure that I can find lots of other things to do on it, maybe chatrooms, so I can find people to talk to.”

Vivienne

This impact is difficult to assess, although it may be the most important in terms of gender and age as it suggests the widening of personal horizons and the awareness of future possibilities related to lifestyle, needs and personality. The more concrete motivations and achievements provide a superficial picture of why and how older women may tackle an Internet
course but the prospect of personal empowerment is not possible to measure. The skills to use the Internet may be passed on in practical terms but the imagination and inspiration which may result in future mind expanding pursuits or in the acquisition of vital or valuable knowledge is incalculable. Marina summarised this feeling: “I have been amazed by it, there is so much, all the time, I am amazed at what it can do.”

Interpreting the impact of the Internet using a Quality of Life model

As discussed in Chapter Three – Literature Review, I have chosen to collate some literature and some of my less tangible findings within an existing “quality of life” model, in order to try to understand the potential impact on the Internet for older women. I have selected one from several models relating to old people, reviewed by Pickering and Thompson (1998). This medical model blends the physical with social and mental criteria (Felce and Perry, 1995), identifying five domains with which to ascertain the quality of life for older people.

- Physical well-being
- Material well-being
- Social well-being
- Development and activity
- Emotional well-being

The basic categories are gender blind but I have used them to group literature on issues which relate to women in the Literature Review and have offered a feminist interpretation of the interview responses here. It is possible to consider each criterion subjectively in terms of the respondents own perceptions of what the Internet means to them.

Physical well-being

Several respondents had used the Internet to find out about medical conditions of family members. They felt that this helped to strengthen their family role and support their husband, sister or grandchild, while recognizing the subjectivity and complexity of some of the information (Wyatt, 2001). The Internet appeared to be a tool which could help them in
caring roles which they had already taken on for family members and to widen their awareness of family medical problems. Fear of their own physical illness in old age did not seem to be a major concern and it was not foreseen as a replacement for existing health provision. The optimism of Timmons (2001) and Kirkwood (2001) for future use of the Internet to aid the doctor/patient relationship appears, as yet, to be unrealised locally. As a means of improving the quality of their lives, physical well-being was not seen as a direct impact of the Internet. However, reassurance about physical conditions may, in fact, bring some benefits which they did not choose to discuss.

Material well-being (e.g. clothing, meals, income)
Material well-being appears to be a cause rather than an effect of Internet use among older women. All of the sample appeared to be middle class and most had access to their own computer and the Internet (Timmons, 2001). This research suggests that social class is an influence in awareness and motivation to learn to use the Internet, which is probably connected to their chances of being given a second-hand one. In terms of maintaining this aspect of well-being, online access to goods and consumer choice seemed to be the objective of some and a possibility for most of the others so there appeared to be a general awareness that the Internet could, at some stage, help to maintain some aspects of their present standard of material well-being.

Social well-being (e.g. community participation, active social networks, maintenance of friendships within these)
As a means of maintaining contacts with family and friends abroad and even locally, most of the respondents either used, or intended to use email, although nearly all preferred the more personal nature of the telephone or the convenience of text-messages (Lohan, 2001). However, email was seen as a possible replacement for costly international telephone calls, and the receipt of emailed family photographs was a motivator.

Only one had considered joining chatrooms in order to make new friends online although Swindell (2000) found that in Australia, his sample enjoyed
interacting with strangers. My findings support Carstensen (1996), who maintained that older people prefer to cultivate established social relationships rather than form new ones in order to achieve a sense of well-being. The respondents did appear to see the Internet as a social tool and it could, therefore, improve this aspect of their quality of life.

Development and activity (e.g. leisure, hobbies, choice control, education)

Some of the women used email to maintain their role within clubs and to pursue their hobbies, e.g. Mary’s bridge club and Margaret’s genealogy, linking them to local groups, which bears out (gender blind) research by Swindell (2000) and Bernstein Lewis (2002) claiming beneficial effects of the interactive nature of the Internet for elderly people.

For some, well-being and personal empowerment appeared to be a consequence of the learning experience of the course itself. A feeling of achievement was seen to be the result of tackling technology or attending the course. For some women this was due to the need to get out and meet new people, because of missing the working environment, (Vivienne). For others, such as Gloria, it was also an opportunity to present her smart public image, with suit, high heels and a briefcase, which symbolized her past confident and authoritative working identity. Pride in the achievement of learning something challenging was also mentioned by some, showing a strength and growth of confidence.

None of the women were currently using the Internet as part of a wider educational goal, and of the few who had studied recently (Hannah had done an Open University Degree since retirement) none had used it to facilitate study. However, increasing familiarity and awareness of its potential appeared to be an encouragement to make further use of it for hobbies and to present opportunities for further technological learning e.g. digital camera use.
Emotional well-being (e.g. self-actualization, self-esteem, self-worth, status and respect)

Using the Internet was seen as a skill needed for independence and freedom by enabling the maintenance of current identities and lifestyles and also for change in older age, maybe widowhood or physical frailty. Sandra particularly mentioned the fear of widowhood and the need to be able to maintain and control her own life.

At least a hesitant and modest growth of confidence in mastering unfamiliar technology was mentioned by the majority of the respondents and the pride in their achievement suggested a similar growth of self esteem. This is reflected by the work of Ruffing Rahal (1998) and Phillipson (1998) who claim that the self is constantly changing and that old age may provide a time of freedom for women from gendered family constraints. For some, the Internet offered a gateway for personal growth, which they found exciting and exhilarating, suggesting liberation from the socially constructed restraints of age and gender. Emancipation through knowledge provided by the Internet is not a measurable outcome for this research but it is possible to identify awareness of its potential within this group of women.

However, most of the women were concerned with maintenance of identity within the family e.g. by learning to communicate through the medium favoured by their grandchildren and feeling that their role as a wise grandmother had not been compromised by technology. Their fears of being “left behind” gave the impression that, for most of them, it was an anxiety about not being able to maintain their role, rather than a brave step forward towards a new identity.

To summarise, this quality of life model has provided a framework for a feminist analysis of the data relating to the third research question. It would appear that the Internet has had a beneficial impact on the five aspects of quality of life identified by this model, as they may be related to the gender and age of the respondents (see corresponding section in the literature review). It appears that some aspects of this model of the quality of life are recognized by the women themselves and their tutors as being enhanced by
use of the Internet but for others, such as physical and material well-being, its potential is more abstract and less easily imagined. Although it is useful to have an externally formulated model for the quality of life, it would have been more relevant to have asked each woman to define her own criteria and to assess the impact of the Internet on it through a longitudinal study. It seems that any assessment of the quality of life is subjective and that the various elements of the above model will have different levels of significance for individuals.

TEACHING THE INTERNET – TUTORS PERSPECTIVES

The reflections of older women on learning to use the Internet offer personal accounts of issues of changing identity and empowerment. In order to support the validity of this methodology I have added the perspective of some of their teachers to this debate, together with the written aims of the courses and fliers (See Appendices II and III). As observation was not feasible, for reasons already mentioned, I have taken the testimony of the four tutors agreed to be interviewed as “truthful” reflections, as with the student respondents (See Chapter Two – Feminist epistemology). I gained further background material from three other tutors and brief informal visits to two classes. I interviewed two tutors in their own homes (Jackie and Sue) and two others by telephone (Nina and Toni) due to difficulties with meeting face to face. I sensed a reluctance of some other tutors to meet me, possibly because they were not certain of my motives, so predictably, the ones that I interviewed were all friendly and confident in their teaching approach.

I interviewed the tutors after I had spoken to the older women learners so that the focus of these semi-structured interviews could be grounded in the emerging data from their students and questions were centred mainly on their perspectives of older women as students. As the tutors were interested in my research, their answers possibly reflected an awareness of the age and gender issues that they knew interested me (see Appendix VI). I was able to group their responses into three main themes:
Teaching/computer background of tutors.

It appeared that the tutors interviewed were not originally teachers but had come to teaching from a variety of career paths. The four tutors who agreed to be interviewed were all women, although I met and talked informally to the only male tutor. All four tutors had already had other careers in business/administration, and had come to teaching from the computer backgrounds that they had developed there. Sue had worked for a supermarket chain, eventually training staff in IT and Jackie had worked in Local Authority administration. Toni had learned the computer and then decided she would like to teach it and Nina had decided to look for a less demanding job where she could use her IT background to help others. All four tutors expressed dissatisfaction with ICT as a business career and expressed the desire to help others or to pass on knowledge as more interesting and worthwhile. They had all received training in teaching adults and all appeared to be happy with their move into education. Nina and Sue had felt that the stress of a demanding job in industry was damaging to their family life and the more relaxed workload of adult teacher suited their preferred lifestyles.

"I was managing a team of people, part time, and I thought 'this is stupid' so I phoned [the Adult Centre] and I did an evening class and – it just evolved. I was in the right place at the right time."

Sue

This suggested that their motivations to teach developed as a result of the need for a less stressful career, rather than from feminist based imperatives in the education of women. However, it was possible to relate their commitment to these ideals of empowerment and to the emancipation of older women from technological exclusion (Au and Raphael, 2000). They were less aware of practical national incentives for older Internet users,
however, which could have helped to provide encouragement for their students to follow up their studies (Alexander, 2002).

**Teaching the Internet to older women learners – curriculum and fliers**

The Community College daytime course outline on file with the Education Authority gave a brief course description and two broad overall aims for a beginners' class. These related to learning to use Internet Explorer searching techniques confidently and setting up a web based email address in order to send emails (See Appendix III). There were no details regarding the level of computer awareness required, however, or how the learning may progress to one of the other levels; intermediate and advanced.

It is not known what input the tutors had in the preparation of the fliers in Appendix II, but they adhered closely to this basic factual description without offering further details or a source of further information. The first two fliers in Appendix II use the word “introduction” and the third, which is a more comprehensive computer course with an Internet module, “little or no previous knowledge”. However, they used terms as “search engines”, “web sites” and “web browser”, which were not explained and may have deterred those who did not understand them. As these fliers are aimed at daytime beginners, who are predominantly older people, this language may reinforce feelings of exclusion from the whole Internet project, on age or gender grounds (Lowe Benston, 1992, McKie, 2000).

It was not clear what was meant by a “beginner”, leaving it to the prospective students to decide their level. Some of the respondent had defined themselves as beginners although they had some skills already, supporting McGivney’s theory that lack of confidence leads to women’s presence in “threshold” classes (McGivney, 1993). This meant that there was a variety of awareness and experience of the Internet, as well as computer ability, which caused difficulties for the delivery of the course material (see next section).

The approach to teaching the advertised material varied between tutors, depending on the length of the course and the range of ability of the
students. As the tutors interviewed taught courses which varied in length from single day courses and two hour long sessions to three, four, five or ten week courses they had developed the curriculum in a variety of ways. Some also taught the Internet as a module in a CLAIT, thirty week course (See Appendix II) which meant that they already knew their students’ abilities on reaching the Internet section of the course. However, tutors of the day courses were required to teach the basic skills, over one complete day, to anyone who had enrolled.

Although classes are open to all ages, the four tutors observed that most of their adult daytime students are older, usually retired, women. Estimates given were three quarters or two thirds of a group of ten. There were usually some older men, often with their wives, and usually one or two younger women, hoping to return to work. Jackie explained this partly by demography (i.e. more older women numerically than men) but both she and Toni expressed the view that older men are more likely to try to teach themselves, whereas older women, having less confidence in their technical ability, would prefer to be taught in a class. This is supported by the testimony of the older women students that I interviewed and also the literature relating to gender and the confident learning of science and technology, noted in Chapters Two and Three.

I was not offered copies of any class plans by individual tutors but it was clear that they all tried to keep to the following five point programme, which was based on the course outline and delivered over varying course lengths. This programme was reinforced by one tutor (Sue) in a booklet which she gave to all students (See excerpt in Appendix IV).

**Overall plan of topics covered by the Internet courses:**

1. Ice breaking exercise – introduction of students and reasons for wishing to learn the Internet and email.

2. Introduction to the background of computers and the Internet and the World Wide Web.
3. Logging on and using a browser – Microsoft Internet Explorer, Netscape or AOL. How to use search engines, including searching techniques – practical work by students to find information of interest to themselves.

4. Introduction to email, signing up for a free email account.

5. Sending an email, including attachments followed by practical exercise of emailing other students in the room with particular messages.

The following critically examines comments from tutors on this programme. My recommended outline for a course plan is to be found in Chapter 7 – Conclusions and recommendations.

1. In the longer courses it was feasible to address personal motivations in the first session. Jackie claimed that she always used an “icebreaking” technique of asking why the students were there and tried to ensure that students' personal objectives were taken into account in order to make them feel more comfortable. This was appreciated by some of the older women as a means of bonding them into a group, highlighting common interests. This way of learning allows women to feel more comfortable and less intimidated (Deem, 1993). However, as there were also men and younger people in most groups it is possible that differences, e.g. in confidence, were also made public in this first session.

2/3 All tutors gave an explanation or history of the Internet and the World Wide Web, followed by an introduction to search engines. Students were later encouraged to search for sites which would interest them and relate to their hobbies and interests. The apparent success of this session supports Turkle's theory that women prefer a more “informalist” approach which allows them to “tinker” (Turkle, 1995, p.63). However, tutors reported that this led to the need for one-to-one support on individual problems, answering
questions and moving around the room in order to ensure that everyone was able to do this. Both tutors and students recognized the strengths and weaknesses of this approach as its success depended upon a fairly uniform level of ability among the students. When one or more students had serious problems, this meant a long wait for the quicker ones, who became frustrated. It also meant that the class plan needed to be flexible and the tutor had to modify it as necessary. On at least one day school, this meant that the tutor had to decide not to cover emailing at all.

4/5. The students were shown how to set up an email account by the tutor and were then encouraged to email each other in the room. I was able to observe this informally and it appeared to work quite well for most of the students as they were able to engage with each other, although there were technical problems. However, several day class and students of five-week courses reported after the course that they had lost their email address and were unable to set up another at home. This meant that the learning was wasted and they became discouraged and isolated again. Some regretted not asking other class members for their email addresses as they would have liked to reinforce the learning and pursue budding friendships, while using emailing skills.

A follow-up self help group is something which could have been encouraged by tutors, together with some incentives to reinforce the learning after the course. Although handouts were given by tutors they did not offer homework tasks or post-course goals and the courses, especially the day long ones, appeared to be tutor-led, where information focused on the current session and was not linked to others. The students' opinions support Brookfield's view of the value of reflectiveness within the "safe haven" of a peer group, in order that adult learners can make sense of their learning experiences (Brookfield, 2000, p.99).
Tutors' views on gender and age issues

The tutors were aware of age influences on their student groups, which were reflected in their awareness of the physical limitations of their older students. This had led to modification of their teaching plans to allow for slower learners in day classes in particular, disability being noted as raising specific problems for both tutors and students themselves. Nina observed that older people are less likely to have any familiarity with computers or the mouse and age-related disability was also mentioned, with poor eyesight, arthritis and deafness being the most common problems, which led to the need for more patience and teaching support. Jackie mentioned the steep staircase at the Owen Centre and awkward access for wheelchairs at another centre which restricted access to the classroom to people who could climb them. This appeared to be a problem which was not addressed at the Owen Centre, where mobility was essential to reach the computer suite.

The tutors felt that all older (retired) people had less confidence with computers than younger people, and children. This was apparent in the interviews with the older women learners where several spoke of their fear of damaging the computer by pressing the wrong key. Although they did not describe using specific strategies for confidence building other than patience and reinforcement, the tutors felt that this course aim was one which was usually achieved (See Appendix III).

Jackie noted how tiring it was teaching a group of mixed abilities and interests, particularly as older people needed more reinforcement than those under the age of fifty. She, too, recognized that she had needed to modify her teaching approach to suit the requirements of her older students, the majority of whom were women. These modifications needed to allow for slower learning in some, but not all, and some differences in interests between young and older students. Toni noted age differences in the reason for learning the Internet.

"Younger people are more shoppers. They are looking for things to buy, like CDs and electrical goods and that. Older
people are looking for things that don’t cost money but are interesting.”

Toni

This reflected the reasons given by the student respondents who mentioned hobbies and interests rather than shopping. Consideration of age differences in the intended uses of the Internet could make this type of skills based course appear more relevant and interesting to older age groups (See Table 6.1). However, the reluctance of some to shop online was related to lack of trust in the security of online financial transactions. Bearing in mind some well-publicized Internet frauds this could be seen as the wisdom of age rather than lack of confidence.

Some of the tutors felt that older women were less confident with computers than older men although they saw older people collectively as slower than younger people, and needing more personal attention. It seemed that the tutors’ stereotypes of their older students had, however, been challenged by subsequent experience of teaching them, illustrated by Sue’s surprise at the aptitude of an elderly learner:

“One lady, Elsa, she’s in her 80s, She came to the class and she couldn’t use a mouse and then she went on holiday and I thought ‘Please don’t come back’. But now, she’s fabulous. She’s followed me for three years now, she’s emailing the grandchildren and she does spreadsheets.”

Sue

I observed her surprise and pride at the success of this student, and her willingness to admit that she had misjudged Elsa’s capabilities. It appeared that both student and tutor had benefited from the relationship, and the sense of increased well-being for Elsa illustrates the American research of Bernstein Lewis (2002).

Both Sue and Jackie admitted that they had learned to modify their teaching to suit older learners because of their own experiences rather than their
teacher training, offering more one-to-one support, and building confidence in their older women students. This highlights the need for trainers of tutors in adult education to appreciate age/gender issues and the importance of accommodating a variety of abilities within the overall aims and planning of the course delivery. Lifestage motivations provide common themes, such as changing family roles, which could be used as a foundation for teaching Internet skills.

When asked whether they felt there were gender differences between learners of technology, the tutors responded in various ways, either with their own theories or personal experiences. Toni made the general point that older men are more instrumental in their approach, attending a class alone to learn specific skills and then leaving, whereas women tended to complete the course and to enjoy the benefits of peer group support either by attending with a friend or making friends among the other students. Self-help in the classroom among the women students was encouraged by the tutors as it enabled them to spend time with the slower learners.

Tutors reported that they did not like teaching married couples. Two of them reported that, if sharing a computer was necessary, the woman invariably sat back taking the notes and the husband used the computer. In its limited sense, this supports research into school children by Kelly (1987) who found that boys commandeered apparatus in science classes. This behaviour suggests that, given equal opportunity to use this technology, the woman was less confident than her husband, possibly agreeing that he was the more technological of the couple. Research into University level computer courses by Margolis and Fisher (2002) similarly found that women lost confidence when taught with “over-confident” men. This attitude towards technology appears to fit with theories of gendered science and technology education (Fox Keller, 1992), and its relation to power (Cockburn and Furst-Dilic, 1994).

However, the two respondents who had attended with their husbands both had access to their own computer in the class and appeared to see their learning as a shared skill and a joint achievement with their husbands, which
they could use together for projects or hobbies and for supporting social and family contact. The skill was seen as a joint asset for these women, enhancing the social and cultural capital of the household.

Gender differences in teaching style among tutors of the Internet would have been interesting to research, but all the tutors who responded to me were female. However, a point about tutor gender was made by Jackie:

"I do know a man who teaches computers, but he is very impatient with those who don't pick it up very quickly, he doesn’t like teaching beginners at all, because it's the same thing over and over again until they get it...he just can’t handle it."

Jackie

This was Jackie's personal view of one ICT tutor, and it can only be speculation that gender is significant in this instance, but it shows that not all tutors empathise with beginners and lack the patience to repeat and reinforce information to those who are slow to learn. This suggests that the personality of the tutor is an important aspect of teaching adults, a point which emerged from the student data. Most of the respondents commented on the kindness and support offered by their tutors, feeling this to be important to their learning experience.

This data reflects the tutors' perspective as teachers of the Internet to older women and adds their insight into some aspects of age and gender. It was apparent that the tutors empathised with older women learners and had made personal efforts to consider and accommodate their perceived needs. However, the modifications to course content and presentation created by the requirements of gender and age appeared to be taking place at the level of the tutor, within the set guidelines of a brief course outline (See Chapter Seven – Conclusions and recommendations). Gender appeared to be less of a teaching issue than age for the tutors in that they noted the obvious problems of physical disability and slowness of learning rather more than the gender issue of lack of technological confidence. However, they felt
that women were less confident than men and were more receptive to being taught as a peer group. Self-help within the session was encouraged by tutors, for practical as well as social reasons and they felt that this support encouraged the women to gain the confidence to complete a course. Where husbands were present with their wives in the class, the tutors noted that the men sometimes dominated, with the risk that some women would not try to learn for themselves. This raises issues of domestic power structures and suggests that women's technological confidence may be stronger if learning a new technology skill independently.

The supporting data from the tutors offers a different perspective on the written objectives of the course as they relate to teaching and learning. The course outline (Appendix III) gives a brief and factual description of what must be covered (in this case, over a ten week period) but the same outline is also the foundation for a single day course. The success or failure of such courses appears to be related to the interpretation and presentation of this material by individual tutors, whose level of commitment and skills are clearly apparent to the students. This was particularly noted in interviews with those older women learners who were ex-teachers and who judged their tutors with a professional eye.

However, from interviews with both students and tutors, it appeared that much of the strength of their classes came from the unwritten material. The humour and empathy of the tutors and the support given by peer groups played a significant part in the overall value of the course to respondents, reinforcing second wave feminist ideals of benefit for both teachers and learners (Deem, 1986). The gains in terms of confidence and increased well-being are not measurable by quantitative means and the evaluation of the course by questionnaire or a written exam would be inappropriate (See Chapter Seven – Conclusions and recommendations). It is unfortunate that funding criteria require a more tangible proof of the success of a course, leading to an examinable component in some courses which deters older learners who would prefer non-vocational and more informal learning (See Chapter Seven – Conclusions and recommendations; recommendations for policy).
CHAPTER SEVEN
CONCLUSIONS AND RECOMMENDATIONS

“Educational research will produce with [women] new positions in emancipatory discourses which are available for take-up by all of us” (Ryan, 2001, p.139)

INTRODUCTION

This chapter interprets the findings in the context of adult education, using a feminist epistemology to address the emancipation of older women through the learning of Internet technology. Section One offers conclusions and an interpretation of the findings and Section Two gives recommendations for theory, policy, practice and research.

CONCLUSIONS AND INTERPRETATION OF FINDINGS

The first point of interest is the phenomenon itself, that older women are interested in learning to use ICT, despite its unfamiliarity and the gender and age stereotypes of Internet users. Biographical data contributes a sense of the individual and illustrates the diversity of the women, placing the research questions in the context of the lives of the respondents (see Case Studies – Chapter Six). It was, therefore, possible to see the women as individuals, within their lived experiences, as well as part of wider feminist theories on technology and education (Stanley, 1991).

The findings showed that the women were similar in terms of social class, access to equipment and the lack of a “scientist identity”. However, they were diverse in terms of age, aspirations and actual familiarity with technology. Their diversity was made more significant by the age range, which precluded a collective post-work identity and raised issues of power relations between the women (Ramazanoglu and Holland, 2002). The oldest had worked during the war, while the youngest was not born until the
late nineteen forties, which meant that they had lived through different social attitudes to education, work and family and political and ideological changes and this generational difference led to an awareness of difference among the group and was also observed by the tutors (see Chapter Six).

The biographical reflections of the women, seen from the perspective of feminism, cannot deny the contribution of social construction towards an understanding of their lives in relation to the research questions (Kelly, 1987). However, their determination to learn a new form of communication supports the poststructuralist view that this does not preclude challenge and negotiation in later life. ICT may prove to be the key to personal and collective empowerment for women in later life, encouraging the deconstruction of socially constructed gender divisions in the home (McKie, 2000).

The motivation of the women to learn the Internet was addressed by the first research question: What motivates older women to formally learn to use the Internet, in relation to experience of age and gender? Although the women gave practical motivations for learning to use the Internet, further analysis of the interviews suggests underlying motivations driving them to become Internet literate, which concern fears of social exclusion, (as described by Au and Raphael, 2000) in a lifestage where they know they will be vulnerable. Equally, if not more important, were fears of losing touch with the younger generations of their own families and the determination to use whatever means necessary to keep in contact, as observed by Moyal (1992). The Internet was viewed as a way of maintaining control over their lives and their place in the lives of their families and friends. Learning to use the Internet was seen as a formal and necessary pathway to a potentially useful and powerful tool, rather than a toy, which could help them to follow their interests and allow them access to twenty-first-century communication, which may potentially redefine and empower the family role of older women.
Data from both students and tutors indicated that women were less confident than men in computer classes generally, but were more open to learning. However, my data also revealed that several of the husbands of my respondents were not willing or able to use the Internet at all, and were expecting their wives to acquire this skill as part of their gender role within the marriage. It would appear that the skill of communication is, for some couples, a female role which women accept and see as a valuable part of their identity. The Internet is a means of enhancing and empowering this role (see Case Studies, Chapter Six).

Old age did not affect the desire to learn the Internet, with the motivation of the oldest women just as strong, if not stronger, than that of the younger retired women. Their determination may be related to the fact that these oldest women lived alone, were used to having to make their own decisions and had a sense of independence to preserve. Such women may actually feel empowered by old age, which allows them to step outside the gendered restrictions imposed by work or marriage (Phillipson, 1998; Ruffing Rahal, 1998) and maintain a sense of purpose and meaning to later life (Heidrich, 1998). Age-related disabilities within the group did affect the experience of the course for the oldest women, however, and for others in the group, who found them slow to learn (see next section).

Although not mentioned explicitly in the interviews, it would appear that empowerment and emancipation underlie stated motives. By learning to use the Internet to communicate with family and friends, to shop or to find information for themselves, they are choosing to include themselves in technological discourses.

The experience of learning the Internet in a formal class was addressed by the second research question: How can feminist epistemology inform an understanding of the experience of older women learning to use the Internet through formal teaching? Feminist epistemology, as it informs the influence of education on the relationship between women and technology, underpins the interpretation of my findings (Chapter Two). My research findings show that, regardless of their previous experiences of
technology, illustrated by their past careers (see Table 6.1), older women are willing and able to learn to use the Internet, and that they see a structured class as a familiar learning method. Despite a lack of confidence, which supports Cockburn and Furst-Dilic's (1994) claim that women stereotype themselves as unsuited to technology, it was clear that they were prepared to challenge their own self-perceptions.

The findings highlighted that backgrounds, skills and needs of older women form complex subject positions (Phillipson, 1998). Consequently, a feminist pedagogy needs to "Start where students are at" (Holland and Ramazanoglu, 1995) by first appreciating their diversity. Within this two-generation age category there was a wide range of aptitudes and preferred ways of learning as well as physical abilities which caused a teaching problem, especially as the slower ones needed 1:1 attention. Tutors all showed a flexible and sympathetic approach but time and structure were not sufficiently flexible to resolve individual and also technical problems, discussed later in this chapter (See Chapter Six - Tutors' perspectives).

The problem of identifying themselves as "beginners" from the information on fliers led to a wide range of previous experiences, so that the "absolute beginners" felt that they were holding the others back, while the quicker students, with some knowledge of ICT already, were impatient with the speed of the classes (Appendix II). The language used on the fliers varied between the overtly patronising and the over-technical, where someone unfamiliar with computer technology would not understand what was being offered, or may be discouraged altogether (as discussed later in this chapter). The women commented on the unfamiliarity of the jargon of computers, which some saw as the language of young males, illustrating the way that women feel excluded from the male "clubhouse" of information technology (Margolis and Fisher, 2002). However, the women did not seem overtly interested in feminist politics and no-one appeared to challenge the validity of a masculine discourse of technology, preferring to find out what was useful and appropriating it for their own personal use. Although the women’s lives have been subject to the influence of social structures, their
choice to learn an unfamiliar technology relatively late in life shows the power of personal agency (Ruffing-Rahal, 1998; Phillipson, 1998).

The perceived impact of the Internet on the lives of the women was addressed by the third research question: **In what ways do women perceive the personal impact of learning the Internet in relation to their sense of gender and age identity?** It was clear that the women had all gained some measure of **confidence** through the basic knowledge provided by a beginners' class. In some, this was a general feeling but others felt encouraged to develop allied technical skills such as the use of digital cameras. Communication within the family provided a central motive for the majority, and it appeared that growing confidence would improve the frequency with which they used their new skill. Others did not describe a specific outcome but felt a clearer awareness of the Internet and its usefulness to their lives.

In order to give a more objective interpretation of the potential wider impact on the lives of older women, I used a set of criteria which identify aspects of life which are important for **a sense of well-being** (Felce and Perry, 1995), and also considered the work of Putnam on **social capital** (2000). These criteria were limited in their ability to explain all aspects of the data, nor would forcing all the data into categories have suited the inductive aims of a grounded approach. Nevertheless, this model was useful to frame the literature and presentation of the findings to show the ways that the Internet could have an impact on the **quality of the life of older women**.

As the Internet courses had no formally assessed outcomes, the personal impressions of the learners and tutors can only be compared to the general criteria of the fliers and course outline (Appendices II and III). However, **the less tangible aspects of the courses may be the most valuable** in that long term benefits may be felt over a number of years. Growing interest and confidence in their technological ability would encourage them to progress to higher levels of skills and knowledge, helping to create a stronger and more independent identity for older women. The positive effect on family and social relationships may ultimately lead to greater
independence. This could also lead to Government savings in social provision for isolated older people.

SECTION TWO - RECOMMENDATIONS

a) Recommendations for theory

In terms of feminist educational theory, this research adds an important dimension to the gender and technology debate and highlights the changing and developing identities of women through their ability to cope with new challenges. For these women, the Internet offers a means of personal empowerment in their retirement years by enabling them to strengthen and protect their social identities and enhance their family roles. With regard to the wider canvas, it offers them the means of inclusion in the technological discourse of the twenty-first century. Research Question Two enquires into how feminist epistemology may be used to understand the experiences of such women and the data resulting from my research informs three areas of feminist theory relating to technology.

Firstly, my data informs the feminist debate concerning the gendered discourse of science and technology. I have discussed the structural theories of social construction and essentialism (Fox Keller, 1992; Harding, 1992a, 1992b) recognizing its power in the oppression of women (Chapter Three - Literature Review). Postmodern/poststructural theories highlight the plurality of feminist perspectives and the absence of the voices of older women (discussed in Chapters Two and Three). The views of my respondents appear to support the social construction of a gendered (negative) view of their technological aptitude and their marginalization in terms of both gender and age within adult technological education imperatives.

However, I also observed individual agency within this diverse sample of older women, which was illustrated by my interpretation of their motivations and learning experiences (revealed by questions informing
Research Questions One and Two) and their plans for the future (Research Question Three). The data supports the view that their subjectivities have not been irrevocably formed by social structures but rather that they may "actively renegotiate [their] subject positions, within discursive constraints" (Hughes, 2001, p.276).

The constraints of a scientific/technological discourse which deter women may be weakened by the inclusion of more women in the design of computer software and websites. This may cause the discourse to become more "woman friendly" and broaden the appeal of computer technology to women of all ages, encouraging female audiences to feel comfortable enough to use online publications and games and to make more recreational and everyday use of the Internet, a conclusion also reached by a recent report by the EU funded group Strategies of Inclusion: Gender and the Information Society (SIGIS, 2005). This further supports the views expressed by Clegg (2001) and Stepulevage (2001) on women-friendly discourses (See Chapter Three - Literature Review).

The women in this research actively selected and made use of existing technology which they considered to be useful and interesting to them and rejected that with which they could not identify. However, they did not contemplate the possibility that the image of ICT could be changed in order to make it more attractive to women like themselves. Although they were aware of their discomfort with a male technological language, their challenges could only be at a personal level, for example, by personalising their computer as Ann did, and working out learning strategies in their own words such as Doris's "idiot cards" (See Chapter Six).

Secondly, my research informs the question of whether or not technology changes gender relations (Cockburn, 1992; Wajcman, 1992; Henwood and Miller, 2001). Feminist theorists have claimed that male discourses of science and technology have affected gender relations (Harding, 1992a, 1992b). Technological developments and "expertise" have tended to be in the hands of men, while women have acted as users or an audience (Kirkup, 1992).
The evidence of my research, however, is that some older women are more willing to address the new technology of the Internet than their husbands, despite lack of confidence. If this indicates a wider trend, it may lead to a repositioning of identities and a change or strengthening of women’s family role, with the acquisition of control and easy access to knowledge and communication (Phillipson, 1998). The contribution of older women to family, social networks and community may be enhanced by their ability to use the Internet. They may be thus empowered on their own behalf and on behalf of older women as an identifiable but socially diverse group.

However, the Internet is a tool which could be used by women to either change or maintain a gendered power imbalance. It may be that ICT could have a less positive impact on women if they allow themselves to be used as secretaries by their husbands, word processing and emailing their correspondence and contacting their family and friends for them. Alternatively, if they become dependent on their husbands or children to use the Internet on their behalf, they could find themselves excluded in a technologically literate world, trapped on the wrong side of a generation and gender gap, in an increasingly isolated private sphere.

Thirdly, my research considers an aspect of whether technology oppresses or frees women (Wajcman, 1992) which was addressed by Research Question Three with regard to older women. As women face old age, the gender issue of personal and collective oppression becomes affected by physical and social factors associated with age. My data suggests that the confidence and sense of control gained from being in touch with the world, without needing to be physically active, may give this potentially marginalized group a collective and individual power and a sense of symbolic inclusion in the modern world. Lack of this type of contact may, conversely, lead to exclusion and increase isolation.

Technological skills alone may not be enough to free older women unless they use them to empower themselves, rather than on behalf of others. What is clear, however, is that computer literacy provides the means to make choices which relate to gendered circumstances. Within their own
lives, the women in this research showed that empowerment was possible. The freedom to follow interests without needing to be active or mobile is important for a gender which is relocated in the private sphere, through retirement, and facing declining fitness. The ability to drive would become less important and liberation from some family roles brings the opportunity (for some) to use the Internet to maintain or expand personal interests. The changing identities of older women, while being located within gendered restrictions in the real world, could conceivably be freed in the virtual world (Gilroy, 1997; Featherstone, 2000). It must be recognized, however, that this type of opportunity is only available to those with the material, physical and emotional resources to take advantage of it and that the respondents in this research were all middle class.

In wider terms, the Internet may be seen as a tool for expanding global and local political awareness and links among older women, giving them new freedom in communication and information gathering (WHO, 1999). As a benefit to the social agencies with whom older women need to interact, their use of the Internet may be regarded as valuable in terms of social capital, freeing them from the constraints of gendered old age to participate in their local social networks online as well as in person (Putnam, 2000). Personal control over one's life has been recognized by Moyal (1992) and Squire (2001) as essential for older people to live harmoniously in the community.

b) Recommendations for policy
Since the start of my research there have been a range of European initiatives aimed at the inclusion of women in modern information technology. The EU Information Society Technologies Programme (IST), to which I refer in Chapter Three, has funded a project which concluded that women need to be more involved with ICT, and aware of its meanings to their everyday lives if they are not to be socially excluded (SIGIS, 2003). Wider availability of subsidised ICT courses is proposed in Wales and recent Welsh Assembly initiatives aim to encourage Internet participation via Learn Direct, through local libraries.
However, adult education policy regarding technology in the UK is mainly concerned with improving the marketable and measurable skills of economically productive younger people (Carlton and Soulsby, 1999). Daytime courses, aimed at retired learners (of which, demographically, the majority are women) tend to reflect gender and age stereotypes, such as patchwork or flower arranging (Dench and Reagan, 2000).

Nevertheless, Schuller and Bostyn (1996) regard ICT skills as one of three learning priorities for older people (See Chapter Three - Literature Review). My research confirms that the older women in my research saw Internet skills as relevant to their lives and important for social inclusion in the future. My case studies (Chapter Six - Findings) show the need for education policy makers to address the older woman learner as a whole person, motivated to learn from within the context of her lived experiences, her family roles and her aspirations as well as her lifestage. This would encourage respect for the diversity and range of interests of this group of learners, as well as the value of their learning to their families and communities, government and social services in terms of unpaid services carried on into retirement. Skills in using the Internet and digital cameras may enable older women to maintain independence and enhance existing roles as carers of the young or sick, accruing social and cultural capital which is not directly connected to economic production.

My findings have led to the following policy recommendations in order to encourage older women to learn the Internet:

**Government level**

1. **Non-vocational ICT classes for retired people**

Classes should not need to be accredited, as some are now, i.e. with an examinable component, in order to attract adequate funding, as retired people are deterred by this extra assessed work or examination and do not need a qualification. Measurement of the overt skills outcomes of the courses studied in this research would not be able to acknowledge the personal confidence gains and attitude changes which are probably the most
important impact of attendance (See Chapter Six - Presentation and Interpretation of Findings).

2. **Concessions/fee waiver**

Further concessions or a complete fee waiver would encourage the less well-off to enrol, as rising adult education fees are a consideration for retired people. This is illustrated by my sample, who were all middle class, and may explain the lack of working class course participants.

3. **Second-hand computer scheme**

A scheme for the recycling of computers for the elderly would help the not-so-well-off elderly to maintain an interest and follow up their learning. Repairs/maintenance and support would need to be organized in conjunction with local authorities or charities such as Age Concern, who may be able to recruit volunteers to install and assist older users. My research showed that most of the women had been given computers and encouraged to use them by their families, so others may be deterred by the lack of their own equipment.

4. **A national publicity campaign**

Television/newspaper/magazine advertisements should target older people and women in particular, to show them the usefulness of ICT for their everyday lives. The key to enrolment is a certain amount of personal confidence and this should be fostered in older women, who may undervalue their accrued experience and abilities. This could be supplemented at local level by posters in health centres, hospital waiting rooms etc. in conjunction with fliers produced by the Community Education Centre.

**Community Education level**

1. **Physical limitations of old age**

The provision of designated adult learning centres and also libraries, community centres and possibly mobile learning units. Access and toilets
for disabled elderly and wheelchair users, and lifts where necessary. Good interior lighting may help those with poor eyesight.

2. **Timing of class**
Daytime classes in full daylight, which take local transport timetables and mealtimes into account are important for students who may have problems with travelling and who may not wish to go out after dark. This is particularly important in rural areas such as the one in this study, where buses run infrequently and street lighting is limited.

3. **Classes for older women only, or the 50+ age group**
My research showed that some of the women were more confident without their husbands and gendered experiences of technology suggest that older women may be more comfortable approaching unfamiliar technology at their own pace, and with the support of their peers (See Chapter Three – Literature Review, Adult Education, and Chapter Six – Presentation and Interpretation of Findings). However, minimum class numbers and discrimination issues may preclude a gender-specific class while age grouping may be less contentious. My research did, however, highlight the point that the term “older” spans a wide age and experience range so a “peer group” may actually span two generations.

4. **Tutor awareness of gender and age issues regarding ICT**
Tutors of both sexes should attend a briefing on appointment so that they are aware of the gender issues with regard to science and technology and the possible needs and fears of older women with regard to learning ICT. Physical issues regarding age should also be addressed, such as mobility, sitting, turning (to face the tutor), vision, hearing and limited manual dexterity, which may affect the ability to participate in classroom learning.

5. **Course outline and aims**
All of the above should be taken into consideration when courses are planned, giving as much detail as possible about the course content and level, what level of existing skills are required, if any, and how the course is to be delivered. My findings show that lack of confidence leads women to
undervalue their skills and that they may enrol in a beginners’ class which they later find frustratingly slow (See Chapter Six – Presentation and Interpretation of Findings).

6. Advertising

Positive publicity which shows the usefulness of ICT for their personal lives, e.g. to contact family and friends, pursue hobbies or find information, would suggest successful outcomes for older women instead of highlighting lack of knowledge. Local advertising aimed at beginners is either very brief, in technological language or may even suggest that beginners are “clueless” (Appendix II). Although this may recruit older women learners it forces them to accept a negative label as unlikely and hopeless students of technology (Wallis, 2002). Advertising needs to take a form that a “beginner” could recognize without shame. However, my research showed that some women had joined a beginners’ class through lack of confidence rather than computer skills. Most of my respondents had clear, personal goals which had given them the incentive to enrol on a course (Appendix VIII) but advertisements and advice need to separate the absolute beginners from those who have some skills already and who need to build confidence.

c) Recommendations for practice

The following recommendations for practice are drawn from a course plan for a four week course (Appendix XIII). This is based on the feedback from both tutors and students, together with my own observations of classes and venues and supported by literature reviewed in Chapter Three. This plan recognizes the need to identify older women learners as a learning group but one with a rich diversity. It contributes qualitative depth and a focus on gender to the quantitative age and technology research of others into older women learners (Age Concern, 2002; NIACE, 2000; Which?, 2001).
Before the classes start:

1. **Awareness of gender issues in writing and delivering a course**
   Course programmes should be built around key skills and their usefulness to course participants. Possible previous gender and technology issues should be acknowledged as "normal" and a set of class exercises used to illustrate the relevance of developing skills.

2. **Awareness of age issues in planning a course**
   Mobility and access problems should be acknowledged by the tutor and seating positioning and comfort, concentration spans and break requirements taken into account. Also sight and hearing, and manual dexterity issues may hamper some students in their ability to follow the class.

3. **Technical support**
   Centre Principals should ensure that computers are fully functional before each class and Tutors should be aware of the availability of rapid response technical support so that time is not wasted or students discouraged because of faulty equipment.

Delivery of the course:

4. **Development of social identity of the group**
   The tutor is in a position to encourage social mixing which may result in the development of peer group support, and the exchange of email addresses later. As the layout of a computer suite does not usually allow direct eye contact, I suggest that a "welcome" coffee reception would give students the opportunity to share their hopes, fears and past experiences (and the tutor would be able to tactfully enquire about special needs). In this way, the basis for a shared teaching and learning environment would be established, reinforcing second wave feminist ideals of group learning and confidence building for women (Deem, 1993).
5. Course structure

The duration and scope of the course should be explained early on. My research identified a lack of homework tasks, which allowed students to lose interest between classes. The benefit of these should be pointed out as part of a structure of learning. Tutors should explain that handouts will be given to reinforce each session. Flexible aspects of the sessions, such as extra exercises for faster learners, should be mentioned. Some of the respondents had felt frustrated by the slowness of others and the weaker students felt that they were holding the others back.

Creating several levels of “beginner” may alleviate the problem of mixed levels of experience. However, judging by the low technological confidence of the learners in this research, it is possible that potential students may underestimate their knowledge.

6. Confidence building

This low confidence was reflected in the emotive nature of some of the women’s reflections. It was clear that learning the Internet was an emotional experience and the women expressed a range of conflicting feelings towards it (See Appendix XII), ranging from enthusiasm to anxiety. Although their negative feelings did not match the anticipation observed by Deem (1993), a sense of shared “ignorance” provided a bond for some (See Chapter Six - Case Studies). Within this common attitude towards technological learning, confidence was gained through helping others as well as through receiving informal support.

Even within a classroom setting and the restrictions of an unfamiliar masculine technological discourse, confidence could be fostered through peer group support rather than a formal structure where the tutor holds power and authority (Weiler, 1995). By involving the women early in a course lasting several weeks, they could discuss their fears and aims, following these up with the tutor or their peers later on (See Course Plan, Appendix XIII). This may dispel anxiety and encourage a more confident relationship with the tutor and peer group.
7. **Group work and peer support**

Tutors should provide a range of suitable activities where students may work together e.g. to email each other in the class or to work in pairs to find information on websites (See recommended course plan in Appendix XIII). Tutors should encourage peer group support to alleviate the problem of people having to wait for the tutor to help them and also to enhance an atmosphere of relaxed learning, where women feel comfortable (Deem, 1993). Contact could be maintained by the group if they were given the opportunity to exchange email addresses.

8. **Feedback and individual issues**

My research has highlighted the diversity of older women in terms of ability. Tutors should offer individual support and feedback to those who need it, while allowing the faster learners to move forward to reinforce their learning with additional tasks, e.g. searching websites for answers to particular questions. Smaller numbers (than the minimum of ten) would provide time for more personal tuition and I would suggest that classes should be no larger than this.

9. **Progression issues**

It is important to maintain interest after the course as skills may soon be lost. Tutors may offer a sheet of useful websites of general interest to older women (See Appendix XIV) in order to encourage them to develop confident use of the Internet after the course. Contacts for local IT support could be passed on and group members may wish to exchange email addresses or phone numbers. Details of other relevant courses, e.g. in digital photography, or word processing, spreadsheets etc. could be offered so that students would be aware of opportunities for further progress.

d) **Recommendations for further research**

The constraints of time and the structure of the EdD has imposed limits on this research. My research diary and feminist approach has, however, allowed a reflexive approach to the process of this enquiry, enabling me to
reflect on my methodology and to consider ways to take the research further (Appendix X). One of the findings of my research has been that older women are a diverse gender group, not widely researched within feminism. I have observed differences as well as similarities in their approaches to technology and further research would be required in order to increase feminist perspectives in the gender and technology debate.

My findings only relate to a small number of older women who have attended some formal Internet tuition. To discover why others are absent means attaching importance to the silences, as much as the voices of older women and the reasons for their silence are issues which should inform both policy and practice in adult education. The respondents in my research represented a middle class sample of independent older women in a rural area, who were able to pay to learn (Appendix VII and VIII). Broadening the research to a wider variety of the social circumstances of older women, for example, within an inner city community or a particular ethnic group, where there may be different as well as common issues which would widen the perspective of this research.

The potential of the Internet for older and disabled women could be observed in an old people’s home or sheltered housing, where the residents could be provided with a communal computer, an Internet connection and tuition, and followed up over a period of time. This would address feminist issues on the quality of life, identity and self-worth in later life (Phillipson, 1998) which are discussed in Chapter Three – Literature Review. This action research could provide feedback on teaching very old and disabled women, while giving something back to the respondents in terms of follow-up support and encouragement including, for example, help and encouragement to follow up specific websites (see Appendix XIV).

Two types of longitudinal research would add depth to what was an exploratory study. Firstly, follow-up of the respondents would indicate the effectiveness of their learning experience over a longer period of time and indicate the need for further ICT courses or “refresher” sessions. Secondly, the changes and development of their use of the Internet as they move from
being newly retired “young” elderly people towards extreme old age would trace their changing lives and interests and may suggest future educational priorities.

The subjective quality of life for women in this wide age group (possibly spanning forty years of later life) incorporates many different perspectives on ageing. Therefore a biographical approach may help to bring together the strands of older women’s lives, focusing on women’s changing identities in later life and their location in both the past and the present (Ruffing-Rahal, 1998). This would inform feminism, education and gerontology, offering an insight into the value over time of a relationship between older women and the Internet.

The apparent disinterest of the husbands of several of the women on these courses would be interesting to follow up, to see how the Internet impacts on gender roles and power in the family in retirement. Gender differences could be further observed by comparing the pattern of Internet use by mixed gender couples over retirement age to see how participation may be encouraged and to inform theory (See Section “a” of this chapter).

Since completing this research, I have piloted a questionnaire within a Pre-Retirement course, to discover whether a random sample of women, who are about to retire, have ICT skills and are interested in using the Internet. Early results indicate that few have computer skills unless they are specifically required at work. It would be fruitful to follow this up with interviews to discover the views of this younger age group, and to understand how the Internet is presented to older working women within employment training, now that it has been acknowledged by the Government (in 2003) as a “Skill for Life”, along with literacy, numeracy and English for speakers of other languages. Such research would also help to estimate the younger end of the age range of women who lack Internet skills at present.

In terms of method, observational studies would add a further perspective to this area of research in terms of classroom behaviour and the interaction
between tutor and students would enable further recommendations to be made for practice. Feminist issues of power and emancipation within the learning environment could take age and gender of tutors into account and consider age and gender stereotyping of older women students. Further research into tutors’ perspectives may connect their career backgrounds in ICT, and their own gender and age, to their desire to teach beginner level students with low confidence levels.

The value of my research is in its wider implications for women on both personal and political levels of emancipation and the further questions that it raises for feminist research. My findings come at a time when post-retirement generations are starting to realise the value of Internet skills. By adding the perspective of age to this stage of the gender and science debate, this research takes that debate a little further, showing that, within a bewildering new “information society” (Bell, 1980), sympathetic educational provision for older women holds a pivotal position.
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Appendices
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Study Guides for E826, E827 and E835 have all influenced this dissertation together with their readers, and the E826 Supplementary Readings on the Postmodernism debate, although they may not be specifically mentioned.


