The Coherence of the Inchoate

The Coherence of the Inchoate: Children and the Internet

By

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Dedicated to Christopher and Benjamin

"… it flourishes by virtue of its belief in itself, in the possibility of control over what seems essentially uncontrollable, in the coherence of the inchoate, and in its ability to create its own values."

(Alvarez, 1972 p. 254)

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CHAPTER ONE

IGNORANCE

In order to arrive at what you do not know
You must go by a way which is the way of ignorance.
(T.S. Eliot, East Coker)

In writing the introduction to this book, I have used Mr. Eliot's words to help me to focus my attention and, whilst exploring some serious issues, to not overestimate the expertise I had within my chosen topic at the outset of this project. The reflective, internal landscapes of the Four Quartets against which the poet throws his ideas have helped me to contextualise the internet, the landscape of my book. Four Quartets is a philosophical, poetical study based upon reflections on the places alluded to in each of their titles. The overarching theme of the entire piece is the nature of time and the human condition. These dual reflections of time and humanity, when taken in the poetical context and language of Mr. Eliot's works, also provided me with a helpful (if tenuous) metaphor for the internet. Also, as I have had little previous experience with research on this scale, much of what I have attempted is for me, uncharted territory. Like the above inhabitant of East Coker, when I began I did not know where I was going or the method by which I would arrive. And as the internet itself is amorphous, rhizomic and shifting, this further problematised the journey.

In developing my book from its embryonic, initial draft, I have used the broad framework outlined by Wisker in her chapter on writing a research proposal (Wisker, 2001, p. 46). In writing the book, I used this framework for developing ideas relating to an investigation into patterns of internet usage by year seven (11 and 12 year old) children. Her suggested framework consists of an indicative title, aim and focus of the study, context for the research, theoretical perspectives and interpretations, research methodology and methods, research design and ethical considerations and I found this a very useful way of framing the piece. Subsequently, I have set out to compare children's in-school and out-of-school internet behaviour using the above framework as a scaffold for the book itself, and this is also reflected in its final structure. The investigation has focused on

a comparison and discussion of both similarities and differences of these behaviours, and the examination of how schools could learn from home practice and vice versa. I hoped that this book would contribute to the discussion about how the internet can not only be better integrated into the school-based practices of teaching and learning, but how it can change the way in which we see education as an institution being potentially altered by the use of digital technologies. The impact that my research could make may be to challenge the way in which the internet can be introduced and used in schools. I hope that one of the outcomes of this book will be to make a difference to the way we see the role of the internet in education. I believe that this issue is important because of the way in which the internet is now embedded in our culture, and elements from postmodern ideas with respect to culture (especially regarding the internet, itself a symbol of postmodernism) is inevitably incorporated into this work.

The use of the internet in education has grown and continues to grow both in importance and prominence, ranking in many ways with other core literacies, as it is increasingly seen that "internet literacy and, more broadly, digital literacy are prime objectives" (Freedman, 2005, p.3) of government and educationalists. Certainly the requisite infrastructure for the provision of ubiquitous internet access in the United Kingdom is growing, and it was recognized some years ago by the Department for Education and Skills (now the Department for Education) that

> "broadband [internet access] makes it possible to connect learning communities and meets the information needs of parents, whilst enabling children to continue their learning beyond the school gates" (DfES, 2003, p.3).

For several years now, this has been a priority of the government. Explicitly "the government wants everyone to have access to the wealth of cultural, scientific and intellectual material to be found on the internet" (DfEE, 2001, p. 1). It has been clear government policy to expand and extend the use of the internet in education. From 2003 policy has stated that "the commitment is there from government to provide broadband connectivity to all schools in England" (DfES, 2003, p. 14) and this remains a high and vigorously pursued priority.

The proposed general area of study for my research is clearly located in the arena of Information and Communications Technology (ICT) in education. As Blunkett has stated, "…very little research in the social and educational field is or can be entirely value free" (Blunkett, 2000 p. 14)

and in my case this is completely true. I am immersed in my research topic in both my professional and private lives and for the past 20 years it has been my principal area of work and interest. I am also a keen advocate for the discerning use of technology in education and my values have inevitably affected the manner in which I have approached this book. There have been many developments both in the growing sophistication of technology itself and in its application, and I was interested not only in how IT may have contributed and is contributing to the changing nature of learning but how it may be changing patterns of usage, especially since the rapid development in the past ten years of Internet-Protocol (IP) based technologies and their sometimes gradual and sometimes sudden appearance in various manifestations in education particularly and society generally. Current debates around personalised and independent learning, learning platforms, social networking opportunities and other emergent ideas of how children engage in their own learning (Green and Hannon, 2007) adds an additional level of relevance for me. However, I also needed to acknowledge a positionality with respect to the students, teachers and head teachers with whom I was to interact during the course of my research. As a senior member of my organisation (and the respondents who were part of it) I was aware that my position may have affected the way in which the data were collected and the way in which I interpreted them. I also acknowledged my predominantly pro-ICT stance and the values and beliefs that I brought to the study. A brief biographical note may further clarify my positionality, my values and biases that I brought to this research.

I was born in Beckenham, Kent in 1957. My father was a British soldier and my mother was a German au pair . Although neither received any post-secondary education, my mother was recognized as being bright at school and it was only the Second World War which prevented her from pursuing her education further. We spent the early part of my childhood living in a basement flat in Brixton, London where my parents cleaned the upstairs doctors' surgeries in exchange for accommodation. In 1965, we immigrated to Australia as assisted-passage immigrants ("£10 Poms"), where, after a period in a migrant hostel, we moved to the outer eastern suburbs of Melbourne and settled into a new, middle-class life in our own home. My father worked first as a salesman and later as a sales manager, eventually becoming an administrative director of a commerce association. After studying English at university I worked in the education sector, pursuing my interests in ICT and education. I believe that both these interests are traceable to a belief in learning as a tool of emancipation, coming as I do, from economically challenging beginnings. After

completing an undergraduate degree in medieval English literature, I obtained postgraduate qualifications in education and computing and taught in primary schools, special schools, further education colleges and universities. Following a career opportunity, I returned to England (the place of my birth) in 2000. The sense of having completed another stage of my journey in life has also injected me with a renewed vigour and helped enable me to take the risk of pursuing a substantial project such as this book, a task which was simultaneously challenging, optimistic and risky.

Given the turbulence of my life and the necessity of adapting at key stages of my development, I have come to view myself as a perpetual learner and adapter, now trying to recognise the complexities of the issues involved in undertaking research such as this. Throughout this journey of research I have attempted to engage critically with the unfolding issues, values and ideas as I discovered them. I believed that this was important, especially in the area under investigation, which is controversial, uncertain and necessarily incomplete within the constantly evolving landscape of the internet. This landscape and the characters that inhabit it presented additional challenges for me, and, although I have attempted to always engage in critical reflection, I understand that this critical reflection may have resulted in a conflict of ideas which I have tried to resolve, or at least identify.

As I have spent periods of time in my life in spatial and therefore temporal dislocation (England/ Australia/ England), I have become increasingly aware of the tyranny of distance and time and the role that technology may play in overcoming this. Certainly my view of the internet is coloured by its ability to make distances seem shorter and the world a smaller place with synchronous and asynchronous communications technology further helping to overcome a sense of isolation and loneliness. This underpinned much of my interest in the internet as an area of study.

Lankshear and Bigum call for “research that provides rich and theorized accounts of cultural practices that enable and encourage educators to experience them from the inside, as participants” (Lankshear and Bigum, 1999, p. 465) and I hope that this book may contribute to the discussion on how and why ICT is being used in the classroom, the home and other learning spaces by examining the internet-based practices of students from the inside. As far as possible, I have approached the research as a participant, not as an outside researcher.

Several researchers have already sign-posted the need for further research into children's use of the internet. A Department for Education and Skills (DfES) report states that "there is…a need to examine pupil's own knowledge, beliefs and capabilities" (Cox et al, 2003, p.27) with respect to the use of ICT, especially the internet.

After careful consideration, I did however decide not to examine or undertake research involving online safety, or issues related to either inappropriate internet use or similar sensitive issues. This was partially because of the added ethical complications that such research would involve, and also because organisations such as the *Child Exploitation and Online Protection Centre (CEOP)* and *ChildNet International* are already involved in considerable research and resource development in this area.

In examining the internet as a subject of research, I found Markham's framework for seeing the internet as a vehicle for communication, a physical network of computers and a context for social construction (Markham, 2006) extremely useful. She describes how the internet can be conceptualised as a tool for communicating, a place for communicating and a way of being in the world. It is an attractive subject for research because of its existence simultaneously and paradoxically both within and beyond space and time. By way of explanation and when viewed mechanistically as an actual computer network, in a sense it has no centre in the way that a conventional client/server network does. Whilst at the same time being ubiquitous, it is also constantly online and active across all time-zones. It is the network of computers and humans that never sleeps. Its extraordinary capacity for the facilitation of communication is showing that "in an informationalistic world new patterns of communication and regulation emerge and old patterns vanish" (Zetterman and Lindblad, 2001, p. 1). The traditional client/server model of computer networks, rooted in its space and time is challenged by the increasing use of IP-based technologies and the flexibility and power that they bring.

Despite my enthusiasm for the subject, this does not mean, however, that I have taken an uncritical approach to the internet. Lovlie has warned that "the internet has exacerbated the problem of what is worth knowing and what worth doing in education" (Lovlie, 2006, p. 13) and the role of the educator and the importance of reading critically were also examined with this in mind, along with the problems that the above-mentioned characteristics may bring. Lovlie's inference that the internet challenges the nature and value of knowledge is a helpful reflection for teachers, parents and policy makers.

In this book I have used the term *internet* as a generic description of the World Wide Web and other IP-based applications such as online games, e-mail and instant messaging. By December 2007, the internet comprised more than 108 million websites. The sheer scope and power of this organism is worthy of reflection. As Naughton says, "the truth is that the Net is wonderful in what it can do for us, and terrifying in what it might do to us. Yeats got it about right: a terrible beauty *has* been born" (Naughton, 2002, p. 45).

The scope of the amorphous, internet phenomenon, coupled with the increasing speed of broadband provision means that it could be seen that "we live in a high-tech accelerator. As a result what we crave is slow, human, personal experiences as well as excitement" (Leadbeater, 2002, p. 171). Ironically, perhaps, the social networking that is facilitated by so-called Web 2.0 software facilitates these human and personal experiences as seen in personal, social and interactive websites such as Twitter, Google+ and Facebook. Lankshear and Knobel provide a useful definition of Web 2.0 that explains

> "in contrast to the 'industrial' artefactual nature of Web 1.0 products, Web 2.0 is defined by a 'post-industrial' worldview that focuses much more on 'services' and 'enabling' than on production and sale of material artefacts for private consumption" (Lankshear and Knobel, 2006b, p. 43).

Thomas and Brown discuss the World Wide Web in terms of being more than just a collection of websites, the interconnections helping to re-imagine the internet as a social as well as a technological network (Thomas and Brown, 2007). For the purposes of this book, I have also used the *Pew Internet and American Life Project* definition of 'social networking' as "…sites where users can create a profile and connect that profile to other profiles for the purposes of making an explicit personal network" (Lenhart, 2007, p.1). Clearly, Web 2.0 sites such as Twitter, Google+ and Facebook fall into this category with their capacity for connecting people in a number of different contexts. Other sites such as the YouTube and Pinterest are also growing in popularity. Davies examines in detail the use of Flickr as a means of reconfiguring everyday life through challenging the boundaries between our public and our private lives, and examines the way in which literacy practices manifest themselves as social practices (Davies, 2007). The 2007 Ofcom research document on the communications market reported that Bebo, MySpace, Facebook and Youtube were all in the top ten websites by time spent (Ofcom, 2007, p. 8). As long ago as 1999, Joo was making an urgent

appeal for the re-shaping of the internet as a human, rather than merely computer network (Joo, 1999). Social networking is perhaps contributing to the realisation of this.

It is the internet in its out of school and social contexts such as these that provides such a fascinating tool for so many young people. The 2007 Ofcom report also states that more than 75% of 11 year olds claim that they own collaborative or social technology devices such as internet-enabled computers, games consoles and mobile phones (Ofcom, 2007, p. 2). Morville enthuses that "ambient findability describes a fast emerging world where we can find anyone or anything from anywhere at anytime…findability invests in the individual." (Morville, 2005, p. 6). But this ambient findability may also mean that, as predicted by Baudrillard "we live in a world where there is more and more information, and less and less meaning" (Baudrillard, 1994, p. 79). I return to this statement later. This also echoes Lovlie's comments above and predicts the evolution of the internet into a vast and dynamic repository of information where the organisation of data is increasingly shared, collaborative and unsettled. It also can be seen as a prediction of an unstructured world of chaos and change. This is not least because it can also be seen as a platform for playful and interpretative explorations of identity, as aspect that Land and Bayne characterise as being postmodern (Land and Bayne, 2004).

As well as being a driver for change, various aspects of the internet are also a reflection of some of the things that children do naturally in their offline or 'real' world. This is recognized by authors such as Granic and Lamey who see that "…the Net is a uniquely self-organizing innovation which requires individuals' participation with technology in order to develop" (Granic and Lamey, 2000, p. 104). As a corollary to this, Hardey notes that, especially with respect to social networking,

> "the internet does provide a medium in which individuals engage in a communicative process of building up trust, of self-disclosure, and of exploring the other in relation to one's own reflexively constructed needs and desires" (Hardey, 2002, p. 581).

Behind both these observations we see that there has been a development in the way we observe technology moving towards humanity. The 'terrible beauty' of the internet referred to earlier is reflected in all these comments. There is an air of inevitability embedded in these views as well. Lien speaks of how

> "The central issue, then, is not to determine whether one says yes or no to the Web, whether one asserts its importance or denies its effects, but to account for the fact that it is spoken about, to discover who does the speaking, the positions and viewpoints from which they speak, the institutions which prompt people to speak about it and which store and distribute the things that are said" (Lien et al, 1998, p. 19).

These observations rather eloquently explain why I have undertaken this research and why it is that I have consulted young people about their practices; it is to help give them a voice on how they use the internet whilst examining their use of the technology in their school and social lives and through this, to see what lessons we can learn as adults and as educators.

Most children and young people in England have access to the internet. 12-17 year olds have the highest levels of usage amongst young people. The 2007 Ofcom report argued that usage really began to increase significantly with the advent of Web 2.0 in 2004/05. It proposes that this was fuelled by the coincidental development of affordable media capture devices and the growth of home broadband (Ofcom, 2007, p. 37) through which children can enjoy games and creative activities as well as completing school work and engaging in out of school educational activities, although a key enabler to children using the internet effectively is also seen to be parents' usage at home (Livingstone, Bober and Helsper, 2005). Part of the literature review for this book has been to examine the existing research around these applications and perceptions, but I recognise that it is also appropriate to acknowledge the work of researchers who have a grander vision for internet use and proclaim that

> "…the internet has the potential to alter the global popular landscape and it is important to bring forth some explanatory arguments and theories that provide a way to think about the transformations being produced by the internet" (Mitra, 2003, p. 12).

In a similar vein, some writers have spoken of the transformational role of technology, but in the context of the internet in education this is often seen as being more subversive in the sense that

> "… the internet surpasses the restrictions of fixed locations such as schools and opens up a new world of understanding and knowledge. Participants in cyberspace may come and go, but the websites will remain" (Hendricks, 2004, p. 3).

Voices such as these emphasize the importance of the internet as an agent of perpetual change in the emergent transformation of knowledge and communication.

In examining issues regarding children and learning, I chose the internet as the major focus of study because not only does it provide unprecedented potential access for children to information and communication resources, but it also challenges many of the assumptions about the way they seek information, communicate and learn. The field for my research is year seven students in schools, as from the outset of this project I believed that this year level represented the bridge between primary and secondary education and may provide some evidence as to how children in both phases of education use the internet both formally and informally for learning and communicating.

Hernwell believes that "children in this postmodern age are the active users of media of the second media age, where they at the same time can be receivers, readers and producers of messages or information" (Hernwell 1999, p. 1) and this book examines some of the various ways in which this may be seen in children's use of the internet. Hernwell's words also anticipate the emergence of social networking in recent years. Leander and McKim state that "websites create social networks that are related to and quite different from those produced through the circulation of bodies and texts in schools" (Leander and McKim, 2003, p. 237) and this was also a potentially controversial, focal point for some of the questions to be asked. It was my intention that the stories to be told by the children would relate to out-of-school as well as in-school experiences as this was an area of particular interest, and this also provided the opportunity to observe online literacy practices. Increasingly, online literacies afford networking, collaboration and social practices as explored by writers such as Carrington (2006), Davies (2007), Green and Hannon (2007), Knobel and Lankshear (2005), Lenhart (2007) and Marsh (2006). This is especially important given the growth of internet provision in education. The expansion of social networks for young people is further evidence for this, given that compared to the recent 12% growth generally in online communities of practice, it is reported in the media that there is a 295% increase in 2005 in community websites such as MySpace for young people (BBC, 2006b).

As well as increased access and usage, there is some evidence to suggest that literacy practices have been changed by the internet. Merchant describes how "children's awareness of the different characteristics of digital texts shapes their on-screen writing" (Merchant, 2005, p. 59).

Certainly ICT and especially the internet are authentic and genuine spaces for the engagement of children. Valentine and Holloway have seen how "children's use of ICT is embedded in their lives. Their on-line identities, relationships, and spaces are no less 'real' than those encountered off-line" (Valentine and Holloway, 2002, p.316). This perceptive view of children's engagement with online experiences demonstrates how the internet is a natural part of their lives.

Although as discussed above, parental influence on children's use of the internet is important, the experience of parents is not necessarily the same as the experience of their children. Writers have described how "by their own admission, parents do not have the same technological knowledge as their children" (NCH, 2006, p. 4). I believe that this is true. Whilst we as adults are sometimes impressed and overawed by technological advancements, to children, the digital natives of this research, they are just a natural part of their world as the data collected in this book shows.

The relationship between ICT and children, however, is not entirely new. Over 20 years ago, Turkle discussed the relationship between young people and computers and observed how

> "with adolescence, there is a return to reflection, but this time reflection is insistently about the self. The question of the first stage, What is this machine?, What can I do with it?, gives way to Who am I?" (Turkle, 1984, p. 138).

This has turned out to be prescient with respect to the social networking opportunities of the internet, a subject to which Turkle herself would turn ten years later. She has turned her attention to the role of the internet in helping to define and develop identity. Turkle describes how "the internet has become a significant social laboratory for experimenting with the constructions and reconstructions of self that characterize postmodern life" (Turkle, 1995, p. 180). The concept of the internet as a laboratory is a compelling one, especially in the context of my research, where I am seeing it as just that, an organic laboratory in which interesting literacy and social practices emerge.

To return briefly however to the issue of technology and literacy, it can be seen that literacy practices and ICT are inseparable from the culture within which they are embedded. Carrington argues this forcefully when she describes

> "the texts we produce, the technologies we draw upon to produce them, and the ways in which we use them once they are produced, are a nexus between the influence and priorities of broad background contexts and the more localised experiences of the everyday" (Carrington, 2006, p. 2).

It is this idea of the internet as everyday and ordinary that was, ironically, so fascinating for me. The excitement and imagination with which the above writers describe learning and the internet compares with the more sober view of education agencies however, who often take a quite mechanistic view of ICT. The Qualifications and Curriculum Authority (QCA) outlines the expected usage of the internet in Unit 6D of the Year 6 Course of Study for ICT.

> "In this unit children learn to use large sources of information, such as those found on the internet. They will use, skim read and take in information to be able to own it for themselves and interpret it with others. At times they will be critical of content and may be able to check for different viewpoints. Children will present the research information in a form suitable to the needs of their audience. It is important that teachers search the internet first for suitable sites. Without this, children can spend many hours in fruitless searching, without any reward" (QCA, 2000, p. 1).

Although these aims may be sound in terms of the functional use of the internet as a large database, there is little here about the internet as a facilitator for communication, collaboration and creativity. It appears now as a somewhat austere and unimaginative view of the internet, not acknowledging the new practices developed in using the internet for both knowledge production and communication.

It is also worth noting a broader issue that also emerges from this; the way in which the internet means different things to different people. Rice and Katz have described how "…some of the digital divide may be due to differences in interests and priorities among individuals in the same ethnic and socioeconomic group" (Rice and Katz, 2003, p. 600). This raises another issue which is largely beyond the scope of this book and is one which relates to equity of access, inclusion and what is spoken of in the literature as the 'digital divide'. Runnel speaks of how the "digital divide is not only about accessing the environment with cables and computers, but it is also about accessing resources and services available on the internet" (Runnel, 2002, p. 1). In turn, this raises the issue of how people see the internet. Some writers take a prosaic view of the internet, resurrecting the argument that ICT is 'just a tool', stating that

> "The internet provides people with a technology that allows them to engage in activities that they have already had ways to engage in but provides them with some added efficiencies and opportunities to tailor their interactions to better meet their needs. However, there is nothing fundamentally different about the internet that transforms basic psychological or social life" (Tyler, 2002, p. 204).

This is a viewpoint that I did not share. I believed that the issues were more complex and not related just to efficiencies and opportunities but to the creation of new meanings and practices both in formal learning and also in informal learning and the subcultures within which these sometimes exist. With respect to these internet subcultures it may be argued that

> "If the dominant culture provides the semantic codes by which groups attempt to transmit and reproduce themselves, then subcultures represent a challenge to this symbolic order in their attempt to institute new grammars and meanings through which they interpret the world, and new practices through which they transform it" (Kahn and Kellner, 2003, p. 1).

I believed that something new was happening here and that, as Lankshear and Knobel state

> "…certain literacies can be identified as 'new' in a historically significant sense to the extent that they are constituted by what we call 'new technical stuff' and 'new ethos' literacies constituted by a new mindset" (Lankshear and Knobel, 2006, p. 1).

This new mindset brings with it new considerations when researching in this area, and it is towards the difficulties and challenges associated with this that I then turned.

A major methodological approach that I have taken in this book focuses on the use of online tools. Hine (2004) suggests that caution needs to be taken when choosing and using online methods of research, pointing out that the same care needs to be taken as when using traditional research methods. Hewson et al (2003) also raise the issue that online survey methodology is a recently developed methodology and is constantly under refinement and requires careful monitoring. Both these points are important considerations to be constantly borne in mind when designing, implementing, evaluating and decommissioning an online survey, one of the main methods of my research.

It is noted in the literature review that already there is significant research that provides evidence for certain patterns in the use of the internet by young people. Livingstone and Bober especially have many interesting comments to make including the observation that

> "For some the internet is an increasingly rich, diverse, engaging and stimulating resource of growing importance in their lives; for others it remains at present a narrow, unengaging if occasionally useful resource of rather less significance" (Livingstone and Bober, 2004, p. 414).

Although evidence for this observation has emerged naturally from the research and has been noted, the boundaries of the proposal have embraced significant discussions of issues relating to equity of access, in order to avoid having the book left open to criticism regarding inclusivity.

Another problem relates to the getting of data in the out of school experience and research of this topic is problematic within this context. Sefton-Green supposes that "it is probably impossible to find out how all children and young people might be learning with ICTs out of school" (Sefton-Green, 2004, p. 30). My research was aimed at a very specific group of children with a specific application of ICT, i.e. internet-based; although I believed that his point was well made and makes the job of the researcher more difficult. He goes on to suggest that "we need to know how learners transform knowledge learnt in these domains to other educational experiences" (Sefton-Green, 2004, p.31). It was my intention to explore this with respect to the internet, especially in the out of school context.

Following on from the previous points, specific difficulties involved in conducting this research have centred on the potential inequalities across the country, especially with regards to access. Steyaert notes that "not everybody has the same efficiency and effectiveness in operating technology" (Steyaert, 2002, p. 208) and this cuts across socio-economic as well as geographical boundaries. These inequalities have been reflected in the sample from which I drew my respondents.

Other practical difficulties included the need to justify the appropriateness of the proposed methods, as well as coming to grips with a methodology with which I have had previous little experience. To assist in overcoming these difficulties, I have attempted to make the focus relevant, specific and manageable, and the question framed appropriately. I have been prepared to defend my approach from a number of quarters. On a very prosaic level,

an additional difficulty was keeping the momentum going for over two years and ensuring that respondents were engaged over a considerable period of time. On a related issue, ICT is a rapidly mutating and developing area and digital innovation and inventions have occurred inevitably over the period of the research that have been too late to be incorporated within the main body of the text.

There is a final health warning to close this introduction. As indicated above, I have used online surveys and computerised qualitative data analysis tools as part of my methodology. There are significant concerns in using computer programs to analyse qualitative data. Given my innate enthusiasm for ICT, I have been mindful of tempering this enthusiasm with common sense. The words of caution from Silverman have always been with me in this respect:

> "a technical fantasy seems to have emerged, uncomfortably close to quantitative work, with a language of counting, hypobook testing and causal analysis that is alien to the interpretative freedom supported by qualitative approaches" (Silverman, 2005, p. 205).

I hope that this book has not been unduly contaminated in this manner. To further clarify and contextualise the research and to state and examine the research questions themselves, I turn to a discussion of the setting in more detail.

CHAPTER TWO

ABSTRACTION

What might have been is an abstraction
Remaining a perpetual possibility
Only in a world of speculation.
(T.S. Eliot, Burnt Norton)

I felt that there was a certain amount of risk involved in approaching this research setting, as there were no grand theories or narratives that were accepted as the immutable canon upon which further research into the use of the internet by young people might be based. Again, I found myself in a strange landscape where nothing was fixed and everything was contestable. However, I started by defining the research question.

The Practical Assessment, Research and Evaluation (PARE) guidelines of 1997 suggests that there are three main criteria for developing research questions and their associated survey questions: relevance, selection of the proper respondents and ease of answering (PARE, 1997). I have considered carefully each of these criteria when framing both the main research question and questions contributing to the data collection. The three areas can be further elaborated upon as follows:

- Relevance: questions will be relevant to the research and will have a reasonable chance of obtaining useful data.
- Selection of respondents: the questions will be relevant to the respondent and the respondent will be capable of answering them.
- Ease of response: questions will be simple to interpret and answer, and will not create discomfort or inconvenience to the respondent.

As explained later, I have used a number of elicitation techniques including an online questionnaire and an interview framework. Among the types of questions that have been avoided in both the online questionnaire and the interview framework are those that require respondents to consult stored data, would make them feel uneasy, would reflect negatively on

them, or would make the process of responding unpleasant. At the top level of questioning, the main research question (and the one upon which other questions are based) for this book was *How do year seven children use the internet both in-school and out-of-school?*

A number of subsidiary questions to the main research question were developed. These questions were carefully developed and chosen because they helped provide further detail to the main research question, and also they had relevancy to my professional work. They also allowed the comparison referred to in the title of this book to be examined from a number of perspectives i.e. by highlighting similarities, differences, the importance of any differences and lessons to be learnt. The chosen questions were:

- *How is out-of-school internet behaviour of year 7 students similar to in-school internet behaviour?*
- *How does out-of-school internet behaviour of year 7 students differ from in-school behaviour?*
- *If the behaviour of year 7 students differs, is this important?*
- *Do schools have something to learn from home practice (and vice versa)?*
- *Is it possible to generalize from research such as this?*

In formulating these questions I have attempted to adopt the much-discussed postmodernist notion of the "estrangement of the familiar" (Maclure, 2006, p. 4). In this book, and in the context of the internet, the framing of the research questions are intended to further estrange that which already may be seen as strange and becoming stranger still. The internet as I have already described is a strange, amorphous, postmodern phenomenon and this concept is explored further in the theoretical framework.

As the general area for study is quite broad, it has been necessary to make some value judgements about what to include and what to exclude in this book. IP-based technologies were chosen as a subject of study rather than other ICT-based learning technologies because of their unique and ubiquitous place in social, home, learning and work places. Contextually, the research was conducted in schools that are located in a number of urban and rural locations across England, and in a variety of socio-economic settings. The locations for sampling were chosen because of

ease of access, relevance to my work and because I believe they may provide a microcosm of diverse education communities across the country. Year seven was chosen as the target research group because this group also may help to capture patterns of usage of students coming out of year six in primary schools. I was also prompted by the observations made in the *EU Kids Online* report on what is known about children's use of online technologies and where research gaps have occurred in Europe. The report notes that in 2007 there was a shortage of research into patterns of internet use for this age group (Hasebrink et al, 2007a, p. 41).

The research was conducted in 20 schools across the country. As implied above, these represent a diverse mix of demographics and socio-economic status. A computer-based online questionnaire designed using Zoomerang © was used in addition to a structured group interview method. The actual sample size and the sample itself consisted of year seven students (n=883) from within the group of schools. The decision to use anonymised data collected using an online questionnaire was made to help preserve children's anonymity, to enable ease of data collection and to ensure some continuity in the way in which children were presented with the questions and the mechanism by which they could respond. By making the survey fun and non-threatening, a more honest and detailed response was hoped for. The opportunity to gather statistics on children's internet behaviour through remote monitoring technology has also been taken.

One of the primary reasons for choosing an analysis of children's usage of the internet is that there is a difference between those who grew up in the context of digital literacy and those older people who come to digital learning from a background of socialisation in physical space. Lankshear and Bigum say that the difference is that "one affirms the world as the same but just more technologised: the other…asserts that the world, because of the operation of these new technologies, is radically different" (Lankshear and Bigum, 1999, p. 458). My research has also considered this in the light of the language children use when speaking of the internet in their survey responses.

The ImpaCT2 study commissioned by the DfES in 2002, with its use of mapping methodology makes some generally useful comments on young people's use of the internet that are explored within the literature review (Somekh et al, 2002). It is also interesting to note that in previous research, when the use of IP-based technologies is examined, most children reported preferring using communications technology rather than

information technology (Livingstone and Bober, 2005, p.2), the provision of broadband technology into homes and schools especially bringing with it a wealth of literacy opportunities through the use of e-mail, weblogging, social networking,moderated chat and the proliferation of instant messaging on the World Wide Web. This book attempts to draw on what has already been written and includes a literature review in which major researchers are reviewed using a variety of research sources.

Building on already published research findings, there were two major procedural questions that needed to be addressed when examining the potential significance of the research. These were:

- Why is the study being undertaken?
- What does the study aim to learn or determine?

These questions can be addressed in terms of describing how children view the value of the internet for learning and other purposes. This is especially relevant when looking at recent ways of describing the use of the internet in education, such as *ambient findability* which describes a world where we can find anyone or anything from anywhere at anytime (Morville, 2000, p. 6). It was only several years ago that the received wisdom of internet use by young people was "to narrow down your search as efficiently as possible" (Davies, 2002, p. 31). This may not necessarily be reflected in common internet practice today, although I was not specifically looking to explore this issue in my research questions.

A conscious decision was made to translate the broad overall questions into measurable elements with more precise questions. The descriptive main question requires the use of measures of internet use. These measures have included the schools' filtering and caching software to generate reports on internet usage to supplement the computer-based questionnaires.

In identifying the target population and samples, I have explicitly included only those children who have used the internet as respondents to be interviewed. Ironically, the fact that they have used my online survey instrument made them internet users, anyway. In compiling the questions to be included in the questionnaire, the number of questions developed have been more than the number actually used, thereby forming a pool from which the most appropriate were selected. This was undertaken during an early stage of the research project.

In addition to the work of Livingstone and Bober quoted earlier, my research builds upon other findings, and also the methodologies used in research into the use of ICT by young people (Valentine, Marsh and Pattie, 2005). Research into the use of applications such as wiki, blogging and podcasting has also informed my investigation (Lankshear and Knobel, 2006, Marsh, 2006).

The research was primarily situated with year seven students in secondary schools and examined their perceptions and usages of the internet. In undertaking this research I have been conscious of not trying to predict children's future appropriation of the internet, but rather to describe and reflect upon their current practice. I was reminded of a novel by G.K. Chesterton entitled 'The Napoleon of Notting Hill' in which he describes a game he calls "Keep Tomorrow Dark".

> "The players listen very carefully and respectfully to all that the clever men have to say about what is to happen in the next generation. The players then wait until all the clever men are dead, and bury them nicely. They then go and do something else."(Chesterton, 1904, p. 1).

This sentiment has been more recently echoed in research by Biriotti where he describes how

> "inventions that people imagined would take flight have often made minimal impact, while those that no one was even taking seriously can explode into our collective consciousness…Text messaging meanwhile came from nowhere to conquer every teenager's heart" (Biriotti, 2006, p. 2).

In examining children's internet behaviour I was also conscious that the culture of school may be different to the culture of home. Indeed, my research examined this. The internet at home potentially gives more freedom than is commonly associated with formal schooling and its associated requirement to reach prescribed standards. Some writers believe that "the age-related SATS test…has led to a reduction of the freedom of children in terms of what they learn at school" (James and James, 2001, p. 216). In terms of out of school behaviour this compares with

> " …the 'children of the internet age', many of whom have never known a life without home computers, games consoles, mobile phones and online connectivity. They are accustomed to more 'on-demand' delivery of services" (Ofcom, 2006, p. 15).

On the one hand we see an increasingly controlled school environment, whilst on the other hand we see increasing levels of freedom out of school. One might hope that recent curriculum changes at the national level may free children and teachers to take a more creative approach to formal learning and teaching using technologies (Boston, K. 2007).

There were also be some surprises to be found in comparing out of school behaviour to in school behaviour where schools are seen as needing to respond to the way children are learning outside the classroom (Green and Hannon, 2007, p. 10). The children who took part in my research were born in the 1990s and are probably part of the first generation who cannot remember a time when they first used a computer. Also, they were born about the time when the World Wide Web was invented. Combes is adamant in her assertion that the 'Net Generation' is very real, stating that "there is no question that young people today inhabit a world where a range of convergent, digital technologies are a transparent part of the information landscape" (Combes, 2006, p. 406). Certainly Green and Hannon go on to argue that children of this age don't seem to need much teaching in using technology, and everyday use of social networking and instant messaging sites are all part of their healthy social lives. Thomas muses that "…the level of skills children achieve in the pursuit of active and committed citizenship in virtual communities may exceed expectations of teachers in schools" (Thomas, 2005, p. 37). This may well be true. Although this is a generalised statement without a specific reference point, it may represent a commonly held perception. Generally, there appears to be widespread agreement amongst many authors about the impact of ICT of children. Marsh sees that "childhoods are changing rapidly in the wake of innovations in digital technologies" (Marsh, 2006, p. 9). Some writers however, exercise caution and believe that "schools are good at closing and controlling futures. What the young will have done with their 'insiderness' 50 years, hence will depend on what we (outsiders) do now" (Lankshear and Bigum, 1999, p. 462). This is speculation of course and was proposed several years ago. It is also viewing the subject from an adult perspective. Adults, even adult erudite authors, have inevitable biases when attempting to describe or position the internet. Children perhaps have less bias, having grown up in the internet era. They are less likely to complain, as Weinberger does that "…the real problem we face with the Web is not understanding the anomalies but facing how deeply weird the ordinary is" (Weinberger, 2002, p. 18).

In my research, I was eager to hear what children had to say for themselves as "…few independently- conducted surveys directly ask children (rather than adults speaking for children) about their internet use" (Livingstone and Bober, 2004, p. 8). However, as Chesterton and Birioth suggest above, predicting the future for young people is a risky business, although we can talk about possibilities and potential opportunities. Indeed, Marsh says that "Web 2.0 applications have the potential to transform classrooms into sites of active learning in which the students themselves become the experts" (Marsh, 2006, p. 19). Other authors also have clear ideas about the positive potentials of the future. Valentine et al speak of

> "… the fact that technology, identities and peer-group relations transform and are transformed by each other might be regarded by children as offering a range of positive possibilities, rather than presenting a threat to their identities" (Valentine et al, 2002, p. 312).

The possibilities extend clearly into the area of children's learning.

As well as the learning environment of the learner being seen in a different light in the context of the internet, the notion of knowledge itself is challenged by the internet, especially in the context of an informal setting. Livingstone invites us to

> "ask children how they work out what to do and where to go on the Internet, and they describe a combination of informal guidance from co-participants in front of the screen and a process of exploration and experimentation in the online environment itself" (Livingstone, 2002, p. 233).

Young says that "it is imperative that we do not limit our understanding of what occurs in this environment to preconceived notions of learning that may not necessarily fit or reflect Internet-mediated experiences" (Young, 2005, p. 10). This is an attractive observation but contrasts somewhat with other writers who take a more positivist view of ICT and learning. Valentine et al argue somewhat from a performative standpoint that "…re-directing children's use of ICT towards educational purposes must be a priority" (Valentine et al, 2005, p. 97). The most controversial implication in this statement for me is the assumption that there is currently no direction of ICT towards educational use. Either way, there is no denying that the ecology of education is intertwined and inextricably linked with technology.

The ubiquity of technology however, could suggest a destabilizing of traditional ideas of learning and literacy. Carrington speaks of how "…computer and other digital technologies are firmly embedded in the textual landscapes in which children and young people develop literate habitus and competence" (Carrington, 2005, p. 479).

Lonsdale and McCurry go on to suggest that "…literacy can no longer be assumed to be either a universal or unitary concept, nor can literacy policy continue to be linked to the demands of a globalised economy" (Lonsdale and McCurry, 2004, p. 14).

Many writers on the subject of learning and the internet make suggestions in which teachers are encouraged to rethink approaches to learning.

> "Studying online memes that aim at promoting social critique can help educators to rethink conventional approaches to critical literacy that often operate at the level of text analysis without taking sufficient account of the social practices, ideas, affinities and new forms of social participation that generated the phenomenon under examination" (Knoebel and Lankshear, 2005, p. 20).

Coiru too believes that learning on the internet is different and that definitions of learning need to reflect these differences (Coiru, 2003, p. 464). As well as examining how technology has impacted on education, some writers have attempted to define technology in terms of learning. Kress writes of how "technology is socially applied knowledge, and it is social conditions which make the crucial difference in how it is applied" (Kress, 1998, p. 53).

Wellington describes usefully some characteristics of learning in different settings, and compares school and home use. He describes schools as being characterized by conformity, sequence, measurement and control. He describes the characteristics of ICT as being personal, individualized, flexible and explorational and he describes home learning characteristics as being voluntary, individual, unstructured and unsequential (Wellington, 2001, p. 237).

Some writers describe learning itself as being a concept profoundly changed by technology. Hernwell has written about how