RESEARCH METHODS AND COMPUTER-MEDIATED-COMMUNICATION: A COMPARATIVE STUDY OF A 'REAL' AND 'VIRTUAL' LEARNING ENVIRONMENT

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CONTENTS

ABSTRACT

The development of ICT and subsequent emergence of forms of 'life' online, has presented researchers with a range of challenges. The move away from the 'real' towards the 'virtual,' apparently inherent in the 'mediation' of computer-mediated-communication (cmc), has challenged forms of knowledge tied to the nature of embodied subjects. Drawing from virtual research methods writing, this dissertation presents a number of issues raised by this mediation and considers the manner by which researchers have responded to them. A small-scale study in which participant observation was carried out within two MA courses (one taught face-to-face and the other via cmc) is then described. Methodological and process-based issues about coming to 'know' these environments and the subjects within them are discussed. It is argued that in each environment although faced with different cues, the researcher is undertaking the same practice and must face aspects of the field which are "lost to the analysis" (Hine, 2000, 54).

INTRODUCTION

The Internet has presented researchers with a rich and diverse new ecosystem of empirical domains. These domains have typically been presented in public and academic discourse in terms of separation and difference from the real, echoing Barlow's <u>A Declaration of the Independence of Cyberspace</u> (1996) in which the Internet is presented as an "organically separate, sovereign realm" (Kendall, 2002, 10). For the researcher or student interested in examining such sites, one of the key repercussions of this separation is that the technologies of computer-mediated-communication (cmc) have been regarded as transforming not only the 'objects' of research, but also challenged the methods we deploy in order to "know" them. This dissertation is primarily concerned with this latter issue: with what happens when the researcher's gaze shifts from 'real-world situations typified by face-to-face (f2f) interactions such as the "office, school, hospital, home, street or sports stadium" (Robson, 2002, 3) to online sites such as MUDs, MOOs, Bulletin Boards, Usenet and websites.[1] In reference to cmc then, the dissertation is concerned with the move from dealing with people 'being' people in physically 'embodied' environments, to dealing with messages which are distinct from bodies but sustain the cues of subjectivity. It seeks to consider how the challenges brought about by this movement have been approached and debated in research methods writing, and how the "shift from field to network… material space to cyberspace" (Wittel, url), from looking at practices rather than things (Leander and Johnston, 2002), "projects rather than subjects" (Flusser, 1996, 344) and "information rather than matter" (Donath, 1999, 29), has been

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[1] In considering the nature of new media research it will draw together the distinction between the Internet and the "interactive communication spaces" (Wakeford, 2000) of cmc – a distinction that is increasingly blurring in writing towards approach to "multiple social worlds of the Web" (ibid) – cmc thus seen in distinction from f2f and to include writing that considers broad spectrum of forms of cmc.

conceptualised within this work. It then aims to use the consideration of the "defining paradoxes of fieldwork around digital technologies" (Lyman and Wakeford, 1999, 360) to feed into an analysis of two empirical sites - which will be used to represent and perhaps challenge the shift from the old to the new.

There may, as yet, be no "Internet Studies" (Jones, 1999, xi), but an increasingly established field of research, scattered across a range of disciplines, has responded to the complexity of online environments. In the process, such work has attempted to address the practicalities of how such terrains should be approached 'academically.' Due to the relative recency of cmc practices and technologies, research into such sites has frequently been tied to the idea of discovery, and thus conveyed as potentially innovative and exciting. It has also, however, been configured as less stable and 'straightforward' than studying the real; and thus uncertain, unreliable, and problematic. Much of this negativity may be due to the fact that, as such research remains in its infancy, core methods are still under consideration. Practices such as the use of covert observation in ethnographic studies for example, which are denounced in real world research as unethical, remain ambiguous in the new tradition of cmc research. Key ethical issues and practical guidelines regarding the basic mechanics of research practice online, remain hotly debated.

Historically, the emergence and development of new mediums/technologies has generated debate which has attempted to define the medium as object/apparatus; what it is, and how it should best be known. The ability of information and communication technologies to support new manifestations of forms of 'life' online, has led many critics to re-examine a host of grand ontological questions regarding the character of

"language, the body, time and space" (Holmes, 1999, 8) within digital environments. Alongside more conventional issues of reliability and verifiability, this ability has also provoked an apparently new raft of epistemological issues regarding questions of authenticity, aura and presence. In addressing these issues, virtual research methods texts have become permeated with the negotiation of key binaries and oppositions; between the "concrete and abstract, ideal and actual, real and fake, and transcendent and immanent" (Shields, 2000, url), as well as the most influential and loudly voiced opposition in new media discourse - that between the real and the virtual.

As these juxtapositions are used to map out the relationship between new and old empirical domains, they are drawn into discussion of the suitability of applying (or adapting) traditional research methods to these new spheres. The concept of innovation, the "two way shuffle of insights between theorizing and experimenting" (Liestøl, Morrison and Rasmussen, 2003, 2), is central to much methods writing which attempts to draw on the conventions of social research whilst dealing with the notion that:

> simply applying existing theories and methods to the study of Internet-related phenomena is not a satisfactory way to build our knowledge of the Internet as a social medium." (Jones, 1999, x)

This amalgamation of old and new is seen in moves to establish those methods which are best suited to the study of cmc. It is also seen in the building of an increasingly institutionalised and established "canon" of new media writing and research, and the emergence of new hybrid disciplines which attempt to respond to the apparent inadequacy of traditional approaches in the face of new domains.[2]

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[2] In qualitative research this has seen the development of disciplines with 'exciting' new titles from the mainstay of 'virtual ethnography' to 'cyberanthropology', "connective ethnography" (Leander and Johnson, 2002) and "interface anthropology" (Escobar, 2000, 64).

In <u>Real World Research</u>, Robson's use of the "real world" metaphor (Robson, 2000, 4) is in terms that set it in contrast not to the virtual but to the experimental. In this distinction, experimental research is presented as more 'virtual' and less authentic than naturalistic studies due to its clinical/artificially constructed nature. Robson's distinction is based on the degree of control (or lack of it) applied in each arena; the use of 'applied' method rather than the 'theoretical,' the strategic focus on policy implications and problem-solving rather than "gaining knowledge," and "work in the field rather than the laboratory" (Robson, 2000, 12). As such, his approach to the 'open' system of "real lived domains," could feasibly be applied to those domains "lived" online, as it is more about the attitude and approach of the researcher than the ontology of the setting. In contrast, the distinction from the real in the context of cmc environments has been firmly tied to the nature of the apparatus/medium, rather than the perspective of the researcher. In the process, the virtual, the multimedia and the textual, have been set against the real – contrasts stemming from their "matter."

As the type of mediation of interaction tends to differ across cmc formations, it has been no surprise that researchers have responded with localised approaches and readings. Such moves can be seen in the creation of a number of mini-genres of writing about the "special qualities" (Williams, Rice, Rogers, 1998) of specific types of environment; such as MUDs (Reid, 1994; Curtis, 1997; Ito, 1997), MOOs (O'Day et al, 1997; Haynes and Holmevik 2001), usenets (Tepper, 1997; Denzin, 1999), web sites (Cheung, 2000; Pariser 2000) and chat rooms (Sefton-Green and Willett, 2003). In these studies, Becker's "tricks of the trade": the "practices that augment, challenge, or even subvert assumptions about how to collect data on new digital and networked technologies" (Lyman and Wakeford, 1999, 361), are tailored, often through reflexive

description, to specific forms of life and activity. Perhaps due to the difficulty involved in addressing the connective, network-type nature of online life qualitatively, such domain-bound studies have tended to outweigh attempts at "holistic understandings" (Jones, 1999, 22) of cmc networks. Instead, these have tended to be the focus of more quantitative mapping studies such as "cybergeography" projects[3] (Wakeford, 2000). As illustrated by studies such as Hine's work on website culture and the Louise Woodward case (2000) and Christian's study of the Inuit people's use of the Internet (2002), the focus has tended to be on technology in use and the impact of this activity upon the nature of the social. This has resulted in a large field of work dedicated to ethnographic approaches. The focus on specific enactments of technology around subject matters or peoples displayed in such studies is similar to that witnessed in audience research studies' focus on specific enactments of spectatorship.

THE CASE STUDY

The move towards localisation and the focus on unique qualities of specific environments is important to this dissertation as it informs upon the rationale and methodology of the study which is to be presented. The project began with an interest in the difference between examining empirical data in f2f and cmc 'fields.' In order

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[3] In relation to use of the Web, Lee notes that there has been relatively little empirical investigation and that research as been "to some extent… the province of computer scientists" due to their ability to "build new tools capable of capturing the data needed" (Lee, 2000, 124)). This has been seen in the focus on analysis of access statistics and development of measurement devices as well as the development of software for creating graphical analysis of agency and connectivity of online interactions by and between users and sites such as Netscan (a data collection tool developed by Marc Smith to "explore posting and cross-posting behaviour within and between newsgroups and to look at temporal patterns in newsgroup use" (Lee, 2000, 125; see also Wakeford, 2000), "Sociable Web" (which reveals simultaneous use of websites (Wakeford, 2000, 37) and the "Loom Tool (which graphically conveys role of users in a group by "plotting dots to represent individual postings" (ibid))"

to consider the 'affordances' and limitations of these environments, a comparative case study of a 'real' classroom (a 'Literacy, Communication & Information and Communication Technology' module taught within a classroom context) and a 'virtual' learning environment (an online 'Computer-Mediated-Communication in Education' module taught entirely via the First Class conferencing system) was decided upon.

There is currently a great deal of academic interest in online learning environments and this dissertation follows in the wake of previous research into 'e-learning': such as the ESRC's 'Virtual Society?' project on the introduction of new technologies in universities (Pollock and Cornford, 2000) and work on specific distance-learning courses like the Internet-based MA program in Library and Information Science at the University of Illinois, or 'LEEP'[4] (Ruhleder, 1999, 2000; Haythornthwaite 1998). Ruhleder's paper "The Virtual Ethnographer, Fieldwork in Distributed Electronic Environments" (2000) - which reported back on part of a research project into LEEP and contrasted the experience of distributed learning with the use of distributed technology such as conferencing systems in a "real-world" workplace - seems particularly relevant as a precedent. Such research is predominantly interested in theories of collaboration and work within real and virtual domains,[5] and any learning about methods comes from (and is secondary to) this analysis and empirical work. In contrast, this dissertation was driven by a defining interest in research methods.

The primary focus of the data collection and analysis was thus on the methodological issues raised whilst working in each realm, rather than solely (or primarily) reaching

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[4] http://leep.lis.uiuc.edu/
[5] with the aim to "develop a better sense of how participants use the technology to carry out substantive and interactional work within and across their classes" (Ruhleder, 1999)

conclusions about the workings of the sites themselves (regarding the value of each as educational domains, for example). Reflecting the exploratory approach of the study, and this primary thematic concern with methodology, my approach to these sites involved relatively open research questions. These included general issues of organization, management and performance in each site: such as the manner and frequency of interactions and postings, the types of normal and deviant behaviour, and issues of authority, policing and interaction. More focused questions relating to specific elements of these environments were to stem from consideration of the literature surrounding new media methods (particularly regarding the construction of subjectivity and the creation of objects/subjects of research in these two domains). The study thus involved a shifting perspective; from examining the workings of these two particular settings, to considering the methodological questions raised in each.

The choice of environments therefore needed to satisfy two requirements; the ability to be compared and contrasted on their own terms, and the ability to house a similar consideration of methodological issues in each. The chosen sites were ideal in this regard, as in many ways they are closely related; the two courses are taught at the same institution, both constitute MA level modules and involved some crossover in the personalities involved.[6] Due to these similarities, it could be argued that the significant difference between them was their manner/mode of realization. Whilst drawing from the continuities between them, the case study thus initially classified them in terms of opposition – choosing these two sites because one took place within the 'real' embodied world, and the other in the 'virtual' technologically-mediated world. Case studies and ethnographies always involve the "selection of a group,

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[6] Each was organized by the same course tutor and one student 'attended' both courses.

organization or community of interest or concern" (Robson, 2002, 89). While the approach of the study was broadly ethnographic in style (although by no means claiming to be an 'Ethnography'), and used participant observation as the primary method of data collection, the choice of these sites and somewhat artificial staging of a juxtaposition between real and virtual, involved a degree of control that verged on the experimental. In this sense, the design of the project could be seen as a qualitatively-rendered relation of early (and much criticised) laboratory-based experiments into cmc in which human interaction was set against computer-mediated interaction (see Baym, 2002).

Each site will be presented in more detail in the sections that follow. With arguments about the ethical aspects of online research continuing to be fuelled (Jones 1994, Rutter 1999, Knobel 2002), it seems sensible to introduce at this point the manner in which ethical considerations were approached in the study. In each environment an attempt was made to tackle this rather contentious issue head-on. The members of the 'Literacy, Communication and ICT' class were informed in the first session that they had a 'spy' in their midst, were told about my research project and informed that I would be taking notes whilst participating in the class. They were also given the (somewhat notional) chance to object to this. The organisation of the 'CMC in Education' course helped resolve a number of ethical issues, particularly in relation to concerns about consent and privacy vs. the public nature of online interactions. The environment, a closed system accessed via use of a username and password, is covered by explicitly stated ethical protocols created and posted online by the module tutor. The issue of anonymity, for example, is addressed in a statement which includes a ruling for those who wish to reference the site: "identities of participants

whose contributions are cited" must be withheld.[7]   This guidance was followed in this dissertation, and specific posts are referenced via details of the title of the message and the date and time of posting - rather than by referring to the name of the author. As well as these protocols, a disclaimer was posted on the gateway entry-point of the site notifying visitors that its content; "constitutes a publicly available archive of resources"[8] (a declaration which forms a type of waiver upon entry). A number of the students involved in the course were also using it as empirical data for their own coursework (and, in one case, their MA dissertation).

The analysis presented in this dissertation draws from, and is set within, a framework of literature surrounding 'virtual' research practice, and reflexive consideration of my fieldwork in each site. The literature under consideration demonstrates the nature of the research design and my style of approach to these settings. For, while acknowledging the existence of demographic and survey approaches etc, the literature review which is to follow draws specifically from qualitative research methods writing. It sets out to outline some of the key issues, controversies and tactics raised within virtual methods writing which were to inform the analysis.

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[7] Protocols available online – www.ioe.a.c.uk/ccs/cmc/index,html
[8] http://www.ioe.ac.uk/ccs/cmc/index.html

CHAPTER ONE: LITERATURE REVIEW

A CONTESTED TERRAIN

In <u>Digital Media Revisited</u> (2003), Liestøl, Morrison and Rasmussen present what they describe as the "first encounter approach" of the analysis of digital technologies; an initial period of critical and academic responses to computer-mediated-environments in which; "established theoretical traditions with their existing conceptual frameworks are applied, more or less directly to the new digital artefacts, their uses and influences" (Liestøl, Morrison and Rasmussen, 2003, 1). Declaring the importance of revisiting such approaches, the authors proclaim the arrival of a second stage of writing about digital media; "a revisiting" of the first stage underpinned by "theoretical and conceptual reconfiguration and innovation" (ibid**).** Such statements suggest an increasing establishment of texts and methods, and a move from a state of infancy marked by diffusion, towards something more institutionalised and concrete, which must now be challenged in order for further progression. Essentially their words seem to presume a trajectory in which we have already made progress (and that although where we are going remains unclear, it will be "better" than where we are now).

If we consider such statements in the context of new media research methods writing, we find a similar movement, but optimism rather than certainty. In terms of 'progress', it is true, for example, that certain core resources such as moves towards a statement of ethics for online research, are being developed and discussed by groups such as 'The Forum on the Ethics of Fair Practices for Collecting Social Science Data

in Cyberspace' (see Paccagnella, 1997)). There is also a growing, and increasingly established, backdrop of guidance for managing the idiosyncrasies of different modes of online data collection – such as e-interviews (Selwyn and Robson, 1998; Mann and Stewart, 2000; Bampton and Cowton, 2002) and online surveys (Witmer, Colman and Katzman, 1999). It is also clear that certain approaches – such as that of the 'virtual ethnography' - have inspired a particularly weighty response from academics.[9] However, optimism that things are becoming 'clearer' are joined by equally vociferous scepticism about such endeavours. The research methods terrain appears very much up for grabs – a new frontier like that of its objects of study.

A large number of books about cmc have been published, but surprisingly few of these are devoted to research methods (Fielden and Garrido, 1998; Jones, 1999; Mann and Stewart 2000)[10]. Due to this dearth of dedicated print texts, the role of academic 'communities of practice' has been of great importance,[11] particularly online where electronic journals and personal websites have housed work, and newsgroups and bulletin boards have provided forums for consideration of research methods. Whether it is groups such as 'The Association of Internet Research' (AIR-Org) debating canon of new media texts and possible syllabi for methods courses,[12] members of sociopranos.org (a forum devoted to social science and sociology) sharing references

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[9] See Mason 1996, Paccaqnella 1997, Hine 1998, Mason and Dicks 1999, Hakken 1999, Rutter and Smith 1999, Ward 1999, Hine 2000, Miller and Slater 2000, Wittel 2000, Mason 2001, Leander and Johnson 2002.

[10] There are, however, a great number of handbook "how to" / 'idiots guide' style books on the market, whose approach is more weighted upon the practicalities of using the Internet to get resources such as how to use a search engine, find resources for specialist interests, negotiate the architecture of document retrieval and suggesting how to make judgements re: quality. Many of these can be identified by the presence of the word "Using" in their title (e.g. Harmon 1996, Kardos and Milford 1996, Cox and Yue 2000).

[11] This is reflected in the number of online references in the bibliography of this dissertation many of which are unavailable in traditional print forms.

[12] Messages posted to air-l@aoir.org 12.06.2003: The Cyberculture Canon, and 04.08.2003: "Syllabi in Research Methods"

and resources and linking to published work elsewhere on the Internet, or archived resources in webzines and academic websites,[13] practitioners have harnessed online spaces in order to supplement real world classes, seminars and conventions. Such sites have involved the transmission of best practice in a new field (Brown and Dowling, 1998) in terms of skills and approaches. Within this range of sites - both online and off - we find that despite the "scattered nature of the enterprises in the field up to this point" (Wakeford, 2000, 31), the issues at the forefront of debate often deal with the same key concerns/controversies. These serve to help mark out the "theoretical field" (Brown and Dowling, 1998).

The "seductive" nature of cmc (and particularly the Internet) for researchers - identified as stemming from characteristics such as its "speed and immediacy", "low administration costs" and "ready transcribed data" (Selwyn and Robson 1998) - has seen it celebrated as a playground for social scientists. For many, it appears to house a seemingly limitless supply of new sites for investigation, whilst also offering up empirical data in a researcher-friendly format in that it is searchable, archiveable and retrievable. Whilst this content is, of course, also tantalisingly and infuriatingly in flux and ephemeral, Internet research frequently relies on a

> "conceptualisation of the Internet as a storage medium, one that "fixes" communication in a tangible (typically textual) form, making it seem ripe for the picking by scholars" (Jones, 1999, 6).

Allucquère Rosanne Stone has, for example, commented on how the "record of a newsgroup's discussions in an archive" *may* appear, due to its non-selectivity as; "the 'ultimate field recorder'" (Hine, 2000, 22,). Similar notions are seen in Newhagen and Rafaeli's discussion of the "inviting empiricism inherent in Net behaviour":

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[13] Such as the list of publications on Hypermedia and Ethnography at http://www.cf.ac.uk/socsi/hyper/pubs.htm and Cybersociology's issue on research methodology www.cybersociology.com.

> Not only does it occur on a computer, communication on the Net leaves tracks
> to an extent unmatched by that in any other context - the content is easily
> observable, recorded, and copied. Participant demography and behaviors of
> consumption, choice, attention, reaction, learning, and so forth, are widely
> captured and logged. Anyone who has an opportunity to watch logs of WWW
> servers, and who is even a little bit of a social scientist, cannot help but marvel
> at the research opportunities these logs open. (Newhagen and Rafaeli, 1996, url)

The fact that this optimism is set within an essay entitled; "Why Communication Researchers Should Study the Internet" may be telling, for not all commentators are quite so positive. Markham, for example, argues that the "apparent simplicity" of studying cmc environments is "an abstraction fraught with multilayered complexity and paradox as one faces the actuality of trying to know anything about the other, online" (Markham, 2002, url).

Without wishing to over-simplify a complex field of relations, it does appear that there is a split between enthusiastic readings of the ability to carry out empirical work in the new environments of cmc, and those who remain sceptical about such practice.[14] This split will be used to structure this literature review, which will be presented in terms of a move from those who challenge cmc as a sustainable domain for research, to those who embrace it. In many ways, this division is connected to the interpretive split between the "exaggerated hopes and fears" of the "cyberspace imaginary" in cultural studies (Jordan, 1999, 184). This imaginary is structured "by two opposed conceptions of its future, heaven and hell" (Jordan, 1999, 184) and played out in the presentation of utopian dreams of cyberspace possibilities and dystopian fears of cyborg futures. In both research methods writing and cultural theory, the division appears built on the back of two essentialising arguments – one based on fears regarding the loss of the real and the other a celebration of this loss.

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[14] I only have to speak to my fellow students about my research interests to experience this unease as most responses involve questioning how I am going to know who my informants really 'are'.

Each stems from the move into otherly-mediated worlds and represents differing responses to the idea of information as "alienated experience" (Brockman 1996; Jordan 1999).

THE PROBLEM OF THE VIRTUAL

Each of these perspectives draws from the nature of the "virtual", a term which infuses discussions of practices and objects of cmc, as well as discussion of research designs and data collection methods.   It has been argued that information and communication technologies have become part of a development by which; "the virtual has to be taken into account on its own terms, because it is no longer simply a reflection of the actual" (Shields, 2003, 5). For many researchers however, the virtual "on its own terms" does not appear to satisfy the desire for the real.   Despite the possibilities for 'new' modes of experience that the virtual appears to offer, the term is in many ways an intrinsically undermining label for something "in effect, though not in fact" (Chambers 20th Century Dictionary definition).   The almost-but-not-quite element of the "'as if' opposed to 'really is'" (Miller and Slater, 2000, url), is firmly recognised at the heart of the "difficulty" of CMC research. It has also impacted upon the relative value of new-media academic production; with virtual ethnography also regarded as "almost but not quite like the real thing" (Hine, 2000, 11).

The move into the "absence" of mediated communication tends to be conveyed as part of a shift from the reassuring stability and homeostasis of subjects and objects in f2f environments, towards the fragmentation and superficiality (and by definition, uncertainty) of an; "'anything goes' world where people and machines, truth and

fiction, self and other seem to merge in a glorious blurring of boundaries." (Hine, 2000, 7). The virtual thus becomes a threat to 'true' embodied knowledge, introducing; "multiplicity into the otherwise fixed category of the real." (Shields, 2003, 21). From this perspective, the virtual challenges the authority of the real whilst remaining in its shadow. Shields argues that: "we are becoming more comfortable with absence, more nuanced in our use of abstraction" (ibid, p. 20). When we follow this idea into social studies research however, we find that the comfort in Shield's assurance is not present or vindicated in the writing about online research. Instead, the characteristics of the virtual are typically presented in terms of "absence, unreality or non-existence" (ibid, p. 19) – anathema for many of the researchers involved in constructing the discourse.

At the centre of this discursive terrain sits the ontology of the 'virtual subject,' presented as joyously meldable and liberatory by those ensorcelled by the possibilities for play and performance online, but presented elsewhere as semiotically emaciated and problematically spectral in contrast to the authenticity of the real - aka the body. For a great deal of social science research, this body provides " a compelling and convenient definition of identity," a "stabilizing anchor" (Donath, 1999, 29) which is tied to both the mechanics of research methods and the empistemological underpinnings where knowledge is tied to experiencing contact with the subject. When faced with cmc environments, traditional impulses are challenged. The resulting uncertainty is suggested by Mason**:**

> How do we do ethnography when we might not be on the same continent as our subject, when our subjects can be male or female at a whim, when one email personality may be more than the person sharing an account, or vice versa, when a subject can delete himself from a community with the simple press of a switch, when some participants in online chat might be computer games." (Mason, 2001)

The 'absence' of this virtual subject appears in two of the features of cmc identified by Lyman and Wakeford as apparently problematic for the social scientist; 1. "the mutability of identity online" and 2. "the claim that it is impoverished in relation to real identity." (Lyman and Wakeford, 1999, 363). Such concerns run throughout methods writing which distrusts the shift from "embodied, biographical identities" (Denzin, 1999, 108) to interface representations which involve loss of the "core" subject. This loss appears to stem from the manner by which subjectivity is experienced online, particularly the lack of "tacit communication" (Selwyn and Robson, 1998). This lack which is regarded as weakening the contextualisation necessary for establishing the authenticity of the subject and thus impacting both on capabilities for understanding and the quality of data within online research.

In their chapter on interviewing which includes a consideration of e-interviews, Fontana and Frey argue that, due to the inability to read nonverbal behaviour/cues:

> from gender, race, age, class, and other personal characteristics… establishing an interviewer-interviewee 'relationship' and 'living the moment' whilst gathering information is difficult, if not impossible" (Fontana and Frey, 2000, 666).

The authors appear to be founding the difficulty of establishing this relationship on the lack of "mutual reading of presentation of self" (Mann and Stewart, 2000, 126) and absence of "nonverbal and paralinguistic cues which contribute importantly to meaning in spoken encounters" (Danet, 2001, 12). Such comments appear to stem from a 'narrow-bandwidth' approach to cmc which presents its defining features as "the absence of regulating feedback and reduced status and position cues" (Baym, 2002, 63). By doing so they suggest an alternative richness of cues and experience in f2f situations. If we consider this in light of an interest of participant observation in the field and specifically in terms of Morrison's classification of settings that

observation grants the researcher access to knowledge of (Cohen and Manion, 1994),
the consequences of such definitions suggest that whilst the nature of the 'physical',
'interactional' and 'programme settings' may be highlighted and recorded, the human
setting ("the organization of people, the characteristics and make up of the groups or
individuals being observed, for instance gender, class" (Cohen and Manion, 2000,
305) is weakened by the loss of these cues.

This loss has been presented as having serious repercussions for carrying out social
research online as the "people" involved are hidden and elusive, constructed only
through fragments and patterning of text. From this point of view, the human is just
not 'there' on the screen. Where it is present, it is conveyed textually, typically by
type-written text; which is viewed as; "a second-hand mode of communication, a
pallid, mechanical transcript of speech, and so always at one remove from…
consciousness" (Eagleton, 1996, 113) and thus robs and separates the subject from its
'being.'

Further problems arise from this 'reduced' vision of cmc. The observer facing online
sites not only has to deal with the "lean", but also with the invisible - the types of
engagement by subjects that cannot be seen and forms of presence with "no
identifying marks, no definite characteristics" (Zweig, 1997, 27). This issue is raised
most fully in the emergence of the "lurker" (Wohlblatt, 1997; Zweig, 1997).
'Lurking' - the invisible participation of those who do not reveal themselves to the
public gaze of the interface, by refusing to make utterances - raises a number of
interesting theoretical questions about the apparatus but also methodological
problems. Not least is the idea that: "From a discursive point of view, the silent are

difficult to incorporate into the analysis." (Hine, 2000, 25). Hine notes that the status

of these invisible participants: "has always been problematic for ethnographic studies

of CMC" (Hine, 2000, 24).   Online, not only is the researcher uprooted from the

reassuring ability to see his/her subjects, but many who may be 'involved' may not be

'present.'

THE RETURN TO THE REAL

The practical response of researchers to such concerns (which carry issues of

authenticity and presence as well as reliability and verifiability), have involved the

trial-and-error deployment of a variety of strategies. The typical response of virtual

ethnographers to the problem of lurking has, as Hine describes, been to exclude them

from the analysis[15] (Hine, 2000). The problem of the invisible and 'impoverished'

subject (Mann and Stewart, 2000) has been handled somewhat differently. This issue

has become closely aligned to the contemplation of one of the key dilemmas for the

online researcher – whether or not to track from the online avatar to the offline

individual.   Interest and concern with movements and "nodes or points of

intersection" between on and offline sites (Lyman and Wakeford, 1999, 362), has

generate specific methodological approaches, most explicitly realised in the

development of multisided ethnographies (Hine, 2000; Wakeford, 2000). Nicola

Green's research into virtual reality (1999), for example, involved the attempt to

"quite literally follow connections, associations, and putative relationships" (Marcus

quoted in Green, 1999, 414), between on and offline locations, technical sites, social

spaces and concepts (Green, 1999, 414). It thus presented a "radically dispersed field

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[15] Hine notes that this has advantages, in that it helps to create support "the perception of the [environment] as a coherent bounded entity." (Hine, 25)

of study" (ibid). Such multi-sited approaches, like descriptive versions of virtual cartographies, are also found in studies which seek to understand the relationship between on and offline communication practices and media consumption such as Miller and Slater's study of media use in Trinidad (2000).

Despite tantalising moves towards such approaches, the need to track back to f2f environments is more often constructed as a pull back to the "source." Hine discusses the historical importance of "travelling to" in attributing authenticity to ethnographic studies (Hine, 2000). In a similar sense, moving out to the real appears to offer the opportunity to authenticate work by literally 'fleshing-out' online data by reattaching "online interactions to the offline world" (Kendall, 234), and utterances to bodies. Such moves frequently betray a desire for the return to the real, and a reliance on the "consolidations of the concrete" (Eagleton, 1996, 49) in order to both confirm the nature of the subjects of research and verify the assumptions of the researcher. In a clear statement of return to the 'atomistic individual,' experienced embodiment is presented as essential for assessing the; "reliability of information and the trustworthiness of a confidant" (Donath, 1999, 30).

This verification process creates a hierarchy of empirical states and modalities of communication – anointing visual f2f contact as a "final arbiter" (Lyman and Wakeford, 1999, 364), and thus most superior source of knowledge. This is a hierarchy that Hine states she wishes to challenge but admits that physical descriptions of 'real' people help; "give the reader of an ethnography a sense of the people written about" (ibid). In the context, it appears that this sense is a unique one, unavailable from online sources, and that it is better to have it than not. In Life on the

<u>Screen</u>, Turkle admits that her use of real-world interviews reflects a self-identified "conservative" approach "because of [its] distinctly real-life bias" (Turkle, 1996, 324). This bias is not only seen in her use of personal narratives garnered from f2f interviews (as well as the all-important "pizza parties" (Turkle, 1996, 357) where she could mingle with her subjects), but also demonstrated in her words; "The medium enables the self to explore a social context as well as to reflect on its own nature and powers." The singular form of the subject as "it" suggests a unitary subjectivity which can be known and is attributed agency through its experimentations with cmc.

For those concerned with confirming the 'true' identity of their informants, any lack of recourse to the body is clearly a problem. This is particularly noted in terms of checking the make up, representativeness and credibility of samples. Fontana and Frey for example, suggest that: "researchers conducting [online interviews] can never be sure they are receiving answers from desired or eligible respondents" (Fontana and Frey, 2000, 667). This uncertainty has become tied to a fear of deception that is seldom voiced in consideration of f2f research. The displacement between on and offline identities is seen to bring about possibilities for manipulation; for online avatars to be the constructions of multiple or "other" authors, or even artificial forms of 'life' such as bots (see work on 'Julia' by Turkle, 1995; Jordan, 1999; Donath 1999). Examples of such deceptions are offered in abundance in the narratives of identity play which circulate new media writing – from scare-stories of journalistic coverage of online identity deception, to more formal 'academic' tales of 'trolling' (Donath, 1999), identity redefinition and gender cross-dressing (Stone, 2001; see also Jordan 1999 on the "myths of the electronic frontier"). The idea of easy deception has been challenged by a number of writers, such as O'Brien who questions the

'elasticity' of gender performance between on and offline worlds, the "masking and distancing of the medium" (Rheingold quoted in Chandler, 1999, url) appears problematic in the light of such tales.

CMC ON ITS OWN TERMS

The authority granted to a knowing subject in the real world in many research methods texts, stems from a tradition of empirical research in the social sciences that has tended to celebrate the reified, coherent and unified individual-as-subject. Not all researchers are involved in this celebration however. The "potential dislocation of the self and body" brought about by cmc (O'Brien, 1998, 18), has been received in a different manner by those who are more enthusiastic about the possibilities for subverting and playing against one's 'fixed' physicality within online environments. This enthusiasm is reflected in methodological approaches to cmc that forward such spaces as 'real' and worthy in their own right, without requiring reference to f2f sites. These approaches focus not on what is lacking in cmc environments, but what is present within them.

Such approaches have frequently involved moves to destabilise the boundary between cyberspace and the real (Leander and Johnson, 2002); often by supporting discussion of the new with references to the old. This impulse can be seen in a variety of examples – from Shields providing a 'historicity' of the virtual (pulling it away from discussion of the new and tracking into past "social actualizations of the virtual" such as baroque trompe l'oeil and 19th century panoramas which involve the sleight of hand of the almost-real (Shields, 2003, 4); discussion of constructs of the imaginary

and abstract (such as Andersons "imagined communities" (1991)); examples of "primitive" virtual realities, such as shopping malls and walking machines (Holmes, 1997); and projects such as Goffman and Gergen's work on "pre-Internet examples of identity performance" (Kendall, 2002, 9).

Such discussion of the "already virtual," challenge realist preconceptions about the nature of the 'real' world. At the same time, the move towards bringing together the real and virtual, highlights uncertainties inherent within real-world research and serves to undermine and question the status of "orthodox methodological practices" (Wakeford, 2000, 32).   Such moves demonstrate the "elusiveness of the subject as a concrete knowable entity" (Markham, 2003), whether in real or virtual environments. By doing so this work challenges the need to track out to the real:

> "the idea that verifiability can be achieved offline is often embedded in a larger epistemological claim that I am less willing to accept. This position seems to suggest that via the offline interview, one can confront the true, authentic other to get past persona in some way." (Taylor, 1999. 443)

This argument is echoed by Lyman and Wakeford who question whether; "seemingly unproblematic, embodied encounters yield totally unambiguous information regarding personal identity." (Lyman and Wakeford, 1999, 364). This perspective suggests that although online researchers may be dealing with otherly-mediated worlds and subjects; "In effect, all of our knowledge about the identity of others is mediated" (Donath, 2001, 305). In terms of the practicalities of data collection, online fieldwork has thus been regarded as revealing and illuminating the difficulties of carrying out research *anywhere*.   In the context of a discussion about online interviewing, Markham notes; "it might be better to simply say that interviewing via the Internet highlights the fact that interviewing, in general, is difficult." (Markham, 2002, url)

Such contemplations demonstrate that; "what is considered as legitimate methodology is itself always in flux" (Wakeford, 2000, 32).

The alternative to the 'return to the real,' offered by such a perspective, involves accepting "facets of virtual communities" (for example) "not as deviance [from the real] but as simple facts" (Mason, 2001, url). It supports the idea that the: "reality which texts construct can be evaluated on its own terms, without recourse to an external, pretextual reality" (Hine, 2000, 53). In this context, the "authenticity of identity" is "negotiated and sustained by the situation rather than as a fixed identity attached to a fixed body" (Leander and Johnson, 2002, url). Such responses to the shift from fields of relations to textually-rendered fields of relations, have tended to engage with questions of how identity, gender and place are performed and practiced (ibid). The heightening of textual awareness involved this area of work, has seen a growing alignment between the techniques of ethnographic studies and Discourse Analysis (Hine, 2000).

The focus on performance, negotiation and inhabitation of cmc environments seems to tie into Lankshear's description of a movement brought about by digital technologies from conventional forms of epistemology, which he defines as forwarding; "propositional knowledge of what already exists," towards "a performance epistemology – knowing as an ability to perform" (Lankshear, 2002, url). He suggests that the response to 'digital epistemologies' may see researchers taking differing approaches to those with positivist and nominalist definitions of bounded reality (Shields, 2000):

> so far as performances and productions within the spaces of the Internet are concerned, it is questionable how far 'knowledge' and 'information' are the

right metaphors for characterizing much of what we find there. … it seems likely that constructs and metaphors from traditional rhetoric or literary theory --- e.g., composition --- may serve better than traditional approaches to knowledge and information." (Lankshear, 2002, url).

Reid for example, looks at the "mechanics" of activity in MUDs to examine the creation of online personas which she describes in terms of the performance of "virtual surgery" (Reid, 1994). Donath takes a similarly ethnographic/textual approach to usenet, looking at her chosen site as a system: "its inhabitants as signallers and receivers" (Donath, 1999, 31), and examining the architecture of interactions; the signatures, modes of expression and language use. The focus on enactment is also at the centre of Denzin's work on the usenet Alt.recovery.codependency, in which he uses a conversation analysis approach to interpret gendered "narratives of self" (Denzin, 1999).

Whilst, as we have seen, the "cues-filtered out" vision of online communication has been influential, it has been joined in such studies by an alternative celebration of the cues that are available and have been developed online a cues-in approach perhaps. This perspective suggests that rather than being unable to convey elements of personal 'self' online; "users choices regardings place, identity etc. are far more limited in physical space." (Jones, 1999, xii). By highlighting the limitations and restrictions of real-world interactions, such comments point instead to the range and qualities of cues online. The "seductions of the interface" (Turkle, 1996) here link directly to certain schools of research such as literary criticism, rhetorical studies and textual analysis for students of whom; "the Internet is research setting par excellence, practically irresistible in its availability" (Jones, 1999, 13). In such studies we find a celebration and perhaps mythologizing of unharnessed creativity, rather than of the physical body

in the cues-out approach. This creativity is frequently considered in terms of play.

As Danet describes:

> In text-based digital communication the need to say in writing what we have been used to saying in speech calls attention to the communicative means employed in formulating the message. Reduced transparency of messages heightens meta-linguistic awareness, and leads us to treat words, letter and other typographic symbols as objects and to play with them. (Danet, 2001, 6).

Interest in such play has seen ethnographers of communication tracking the influence

of ranges of 'subcultural' practices and products (such as hacking, comics and street

graffiti (ibid)) upon forms of cmc play, and such studies have involved close attention

to stylistics and content, once again focusing on what is on the screen.[16]

THE CHALLENGE TO CERTAINTY

The acceptance of the dislocation of body, discussion of the already-virtual and focus

on play and performance in these approaches have become intertwined with other

methodological shifts. The shift from the 'real' to the something else/other of cmc has

been packaged as a competition between "modern and postmodern aesthetics"

(Turkle, 1996, 61), with the computer systems that bring cmc worlds to life serving as

"carrier object for such [postmodern] ideas" (ibid). The emergence of cmc has

coincided with movements in theory and practice such as poststructuralism as well as

postmodernism that have challenged the assumption that "objective knowledge exists

and that if one is skilled enough one can access it" (Fontana and Frey, 2000, 663). As

Miller and Slater state:

> The Internet appeared at precisely the right moment to substantiate postmodern claims about the increasing abstraction and depthlessness of contemporary mediated reality; and poststructuralists could point to this new space in which identity could be detached from embodiment and other essentialist anchors, and

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[16] Such as the use of 'multiple punctuation', 'eccentric spelling', 'asterisks for emphasis', 'written out laughter', 'descriptions of action', 'smiley icons', and abbreviations. (Danet, 2001, 17)

> indeed in which (some) people were apparently already enacting a practical,
> everyday deconstruction of older notions of identity. (Miller and Slater, 2000)

Such claims have influenced and supported a range of more radically experimental

methodology and writing, which has looked to explode not only notions of essential

forms, but also the linearity and authority of the academic text. Such dissection has

been seen in movements such as cyborg anthropology which seeks to; 'displace' the

human-centred foundation of anthropological discourse, and the placing of agency

solely on the skin-bound individual," looking instead to "study ethnographically the

boundaries between human and machine" (Escobar, 2000, 61). The move against

monolithic, linear forms of argument and investigation into cmc has been seen in

hypertext ethnography (Dicks and Mason, 1998) and work such as Stone's personal

and "thoroughly experimental" construction of "a kind of adventure narrative

interspersed with forays into theory" (Stone, 1996, 21).

Although the work surrounding cmc environments is diverse, and approaches differ in

attitude as to how such empirical fields should best be approached and managed, one

characteristic has tended to unite the writing about virtual methods. As such

territories still remain relatively new (despite the academic practice which has gone

on within them), the focus is often on reflexive commentary and the trial-and-error

innovation of the researcher. There are few sturdy guidelines and few certainties.

What is shown in the literature however, is that certain issues, such as those relating

to questions of presence and absence, performance and 'essence,' verifiability and

deception, are seen to impact directly upon this practice and this reflexivity. Going

into both the classroom and the *First Class* environment, I wondered how these issues

would reveal themselves.

CHAPTER 2 : THE CLASSROOM

A FAMILIAR SETTING

The 'Literacy, Communication and ICT' module classes which formed the first of my two empirical arenas bared all the traits of a conventional academic learning environment. The seminar-style classes were attended by a number of students (normally about 6 in each session) and ruled-over by a member of academic staff who presented mini-lectures and introduced guest speakers. The sessions involved the exchange of questions and responses, small-group discussion and the use of supporting props such as websites and overheads. They also carried all the hallmarks of a "real-world" environment – a full colour, bodies-attached space within which interactions were played out in a variety of physical and verbal modes. My 'fieldwork' within the module involved 5 sessions of 3 hours (the duration of the class). 1 of these sessions involved my sitting before the class in order to present some work to the students, which offered a rather different perspective from sitting 'within' it.

The relatively traditional setup allowed me to refer to an established field of participant observation practice in classrooms and schools. The novice researcher interested in examining educational contexts is able to draw on the findings of a multitude of studies and approaches to studying the classroom; from the use of well-established structured schedules and observation schemes, which offer classification of typical learning episodes and interactions (Cohen and Manion, 1994; Hitchcock

and Hughes 1995; Robson 2002), to the more prolonged involvement within sites of ethnographies of schooling (Hitchcock and Hughes, 1995).

Although it would have been possible to use observation schedules for my research, the ethnographic approach of my study meant that I chose instead to aim for grounded interpretation rather than categorization and the search for quantifiable events. I did, however, attempt to systematically capture and record the central information of observational practice within my chosen site, the:

> speech acts, non-verbal communication; descriptions in low-inference vocabulary; careful and frequent recording of time and timing of events; observers comments; detailed contextual data (Cohen and Manion, 1994, 311).

Much of my data thus resembled (in a somewhat looser permutation) the types of categories of structured approaches; such as "teacher-talk," "pupil-talk," "student/teacher talk," "student/student talk" (Hitchcock and Hughes, 1995, 235), and on occasion "teacher-teacher" talk (which appears somewhat neglected within such schedules and yet was to be of interest in these sessions). By noting typical interactions, such as "teacher questions, answers, bids of answer, antecedent and challenges" (Lemke, 1990) as well as silence and "visual" conduct (Heath and Luff, 1993, 316), I attempted to record the "who says what to whom, when and where" (Hitchcock and Hughes, 1995, 245). I also paid close attention to the pressure points at the beginning and end of each session - the hesitant late entries and apologies of arrival times and move to closure of departure "times" (ibid). Such moves aimed to ensure that my fieldnotes were rigorous and thorough.

This rigour was supported by more reflexive notes to self, hand-drawn maps of seating arrangements and sketches of images of the participants. This use of a 'multimodal' repertoire of note-taking was a concerted attempt to pick up the cues

unique to the context, as well as helping to round out my own commentary. Having considered my responsibility as the sole "measurement device" in the study (Miles and Huberman, 1984) I was keenly aware that in transcribing such moments I was producing my own archive of the classes and that, as I was not using audio or visual recordings, I would not be able to 'dip back' into them at a later date in any other form other than via my fieldnotes.

PARTICIPATION AND THE CLASSROOM

My role in the class involved participation on both sides of the student/teacher divide; sitting in on the classes, asking questions, taking part in group discussions as well as presenting. In terms of status, this led to my position within the class proving to be of a somewhat hybrid nature. I was introduced to the group of students as a 'colleague;' but after the class members had been informed of my 'true' identity as a researcher, my status changed; I now had more authority than a student but less than a member of staff. I found that my interest in the class as a student also resulted in my having to work hard to fight against the "problem of the familiar" (Hitchcock and Hughes, 1995, 261), particularly difficult at moments during lengthy and sustained presentations by members of staff, during which my impulse was to shift into full 'student'-mode. This was illustrated in my fieldnotes, in sections where the focus changed from concentrating on the setting to noting down and commenting on the work being presented.

The fact that I was a student did, however, have clear benefits. Not least in that it meant that I was granted access to the more informal parts of the class, such as coffee

break chats and pre-class discussions. These moments provided me with the opportunity to witness and participate with the group within different contexts and surroundings from the regulated, more public, interactions of the class. The juxtaposition between classroom and canteen, for example, offered a vision of the "segregation of audience" by physical environment described by Goffman (Cheung, 2000). This opening up of different sites was further broadened by my meeting a number of the students around campus and, on one occasion, bumping into a student in a supermarket. The moments of recognition involved in these meetings, and tailored presentations of self in different sites involved the dispersal of the field cited in Green's study of VR; although perhaps not as radically in that the sites remained within the real world. Each meeting provided an opportunity to readdress and reconsider my overall picture and understanding of the student.

Within the class however, the types of cues on display proved to be quite restricted. The first session of the course began in the traditional manner with introductions by the tutor and class members. Each student in turn provided a brief autobiographical description which also allowed them to share with the group their interest in Literacy and/or ICT and reason for taking the course. These introductions all involved the stating of name and the MA course they were registered on. This information was supported and supplemented by a range of modes of spontaneous and immediate expression, a variety of "sign vehicles" from clothing, voices, posture etc (Cheung, 47), as well as decisions about where they had chosen to sit etc. From this session on, despite the apparent array of possible signs and the 'richness' of the cues, for a lot of the time, the class members maintained the same poses and body language; typically with arms crossed, apparently listening, looking around, or quietly making notes.

Despite developments in the nature of the group dynamic over the sessions I attended, very little in terms of style of self-presentation was to change from this first session to the fifth. Indeed, in terms of physical cues, a high level of redundancy and relatively low range of expressiveness was displayed during large periods of class time.

Despite moves by the tutor to provoke interaction and responses - by asking questions, opening the floor for debate and making jokes about silent responses - attempts to shift the source of discussion to the class members were frequently thwarted by non-response. This is seen in commentary in my fieldnotes: "Class drawing to a close: "Any Comments?" : No : Silence :"Any Questions?" : No. : Silence." My impulse would be to speculate that the non- or limited response of the students during these moments of the classes might be due to the pressure of the environment, and unwillingness to enter an evaluated public arena and make a fool of oneself. This is of course just conjecture, for their hesitancy could just as much be due to non-interest etc. It did appear however, that when debate shifted away from theory towards the exchange of personal narratives which were offered up to the group as informing on the academic discussion, talk became more fluid. I became interested in how quickly, and the manner by which, talk veered away from the formal "arena of generalisations"[17] to the more accessible register of the personal. My fieldnotes contained a number of such examples, typically involving students recalling teaching experiences and thus drawing on the common understanding of their class members, most of whom appeared to have worked as teachers. On another occasion, a student expressed his interest in literacy in the context of his being unimpressed with the nature and quality of websites. During these moments of 'easy'

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[17] Paul Dowling, in conversation, 27/08/03.

talk, the flow of discussion became smoother and the students proved more eager to take part in it. Sustained interaction and collaborative engagement was also to come during periods when the class was divided into smaller groups to discuss issues such as; "What is Literacy?" and then to report back to the group as a whole. Taking part in such discussion, I found that this too tended to be dominated by the exchange of such narratives.

In as much as verbal participation can be equated with engagement, outside of this small group work, only a few of the students emerged as consistently engaged with discussion. By being engaged vocally in the classes, responding to questions, asking their own questions, telling their own stories and arguing points; these students offered up richer forms of self-description, serving to furnish their physical personas with a range of other characteristics. By drawing class discussion to personal stories, used to exemplify themes and arguments, they also provided 'backstory' to their status as "knowing subjects" by offering glimpses of personal histories. Such participation thus allowed me to attribute these students with personalities and define what I believed to be their roles within the group dynamic more easily. Those who were hesitant to speak out, and in the process present themselves up for examination in this way, proved more problematic. A couple of students said very little throughout all of the classes that I attended. Engaged in a more extreme form of self-censorship than others in the group, these students remained even more enigmatic than their colleagues, despite their physical attendance in the class. I began to regard them as physically present versions of lurkers, offering few contributions to the public exchange of discussion. If the classes had been reduced to a transcript or audio

recording, their impact upon the text or tape would be minimal. They were, however, attending the course and thus 'taking part.'

The contemplation of the contrast between physical presence and the lack of cues to meaning, was one of the defining features of my fieldnotes. Repeatedly, my comments expressed the feeling that although the scene, bodies and interactions within the class were immediate and physical, much was out of reach. I would suggest that the strength of my awareness of this feeling was tied to that fact that within the class one mode of interaction dominated proceedings. This mode was one in which attention of the students tended to be focused on a single point of authority, similar to an act of spectatorship by the students with occasional forays into discussion. During presentations when the attention of the students was drawn to specific sites of focus – such as the computer screen (used to show the class a hypertext novel), overheads and other show-and-tell demonstrations - this feeling was pronounced. It was also visible during discussions between the module tutor and a visiting professor, during which they dominated the "floor," and the students looked on silently. As an observer, my notes began to focus on watching-people-watching. During these periods then, the apparently concrete nature of what was going on, and the availability of exterior physicality and cues, was undermined by the lack of manifested input/commentary from the students and the more blankly ambiguous cues. Possibly therefore, the set up of the class meant that there was a greater lack of participation than in, for example, a f2f workshop or "brainstorming" session. The strength of this feeling would thus seem to be tied to a specific instance of f2f rather than the character of f2f in general. However the immediacy of the physicality on "display" did seem to highlight all that I could not access. As a researcher in this

environment, such moments triggered the desire to be able to draw from other forms of data, and perhaps shift to more detailed or direct techniques of investigation in order to increase the "thickness" of the description and verbalise the scene in other ways.

CHAPTER 3 : *FIRST CLASS*

AN UNFAMILIAR SETTING

The second environment under consideration, the CMC in Education course accessed via the *First Class* conferencing system, presents itself up for analysis in a radically different form from that of its 'real-world' counterpart. As the classroom is replaced by the computer screen, a familiar setting becomes a dense, textually-rendered environment which must be negotiated and learned.[18]   The course makes use of the variety of the 'special features' of the *First Class* software. Centrinity, the developers of *First Class*, describe the range of communication tools available on the system's "collaborative groupware" as providing users with:

> the ability to effectively communicate and share valuable resources and information via email, conferencing, directories, individual and shared calendars and online chats… (http://www.centrinity.com/AboutFC/)

Large parts of the environment resemble a Microsoft Express-style email system; users are granted access to collective inbox's and sub-inboxes which represent conferences and sub-conferences and messages are opened and read in a similar way to emails. As well as this, participants are able to utilize a number of cmc tools which provide a mixture of synchronous and asynchronous modes of communication. Asynchronous posts are thus supported by the possibilities for 'chat'. The site thus offers a markedly different, "extraordinary bandwidth" ('Paul' quoted in Chandler 1999 url) for self-advertisement and collaboration from that in the real world.

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[18] For those familiar with Microsoft Outlook, bulletin board systems or Intranets, this acclimatisation is not likely to be too painful.

Within this environment, class members and class tutor interact through the mediation of the screen and their messages, their agency and "asynchronous shared experience" (Ruhleder, 2000, 8), bring the space to life by filling it with data. This data is held for inspection, suspended within the threads, posts and conferences of the system's archive which in turn is presented in both an ordered, but also malleable, way. Messages can be arranged and gathered by date, sender, size of post. Users are able to upload and retrieve documents, and can thus both contribute to and take from the resources housed on the site. In the same way, images can be attached to posts and resumes. As displayed by messages from the module tutor - which could be identified by a small icon of a 'professor' - visual tags can be attached to posts in order to personalise and distinguish between messages (although none of the students took up the chance to use these). The ability to enclose attachments and to lead readers to other parts of the site where resources are housed serves to expand the possible forms of content, as well as the available paths through it. At the same time, the opportunities to alter the layout and style of messages enable personalised design of communication. The site thus exhibits the nature of both hypertext and multimedia applications, with hypertext facilitating; "the multiple entry points and non-linear associational jumps across the material, and multimedia [permitting] the use of a fuller range of sources…" (Featherstone, 2000, 173).

Despite the usefulness of the order, classification and organisation within the environment, the possibilities of this immersion and movement, and the apparently user-friendly arrangement of information available, when taken as a whole the site seems to house a rather overwhelming accumulation of data. The instinctive move (at least of this visitor) is to begin to break up the space by examining specific areas in

more detail. In doing so, one finds that the environment houses a number of spaces dedicated to a variety of endeavours, and regions delineated by purpose and content. "The Manhattan" (a 'virtual coffeeshop') is designed as a space for relaxation, for informal and relatively unregulated chat. In contrast, the Task areas which serve as workspaces for collaboration (and in this case coursework), are more tightly tied to the academic nature of the endeavour.

The ICT in Education course ran from December 2002 to July 2003 and during this time, these micro-worlds of conferences and subconferences were inhabited by 15 registered students (1 of whom was also a member of the 'Literacy, Communication and ICT' course). A number of students involved were registered to the MA Distanced Learning Course reflected by their physical residence in far-flung locations such as the US and Columbia. The activities of the students were regulated and tracked by the course tutor, who served as moderator for the site; helping to acclimatise them to the environment at the beginning of the course and ensuring that a certain level of decorum (such as no "aggressive or authoritative posts" Message to Task 1 Conference Titled "Introduce Yourself," 31 December 2002, 05:07:07) was maintained. Although the role of the tutor appeared pivotal in maintaining the course, particularly in providing the group with guidance and support for each task and helping to maintain activity, the number of posts from this voice of authority were to gradually lessen in frequency as the course moved towards completion and the participants became used to the environment and made it their own. The tutor remained, however, the main voice of authority in the environment.

My involvement with this environment began at a somewhat late stage in the timeframe of the course. I first visited the site in June 2003, by which time many of the tasks had been completed. This meant that I did not experience the site as it was growing, and that by the time I arrived much of the work was in many ways 'finished.' However, the nature of the environment meant that the postings to the site,

> have the advantage of capturing everything that was publicly available to the participants in that setting. The copies of postings… are exact copies of what others who read them saw…. (Kollock and Smith, 1996, url)

This meant that the material that I was engaging with was the same as that which had been generating communication for the course members. As I arrived later and was not a member of the course, the character of my participation in the site was more limited than my fieldwork in the classroom. I did not post to the site, and thus made no direct intervention on the public façade of the course. I was thus engaged in a form of unobtrusive participation, making up part of a possible audience. This type of involvement has been criticised by virtual ethnographers such as Hine who regard it as passive and call instead for active and 'full' participation in online sites in order to gain "deeper understandings" (Hine, 2000, 23).[19] I was to find that it raised a number of challenges and questions to do with the nature of online participation/experience.

CONSTUCTING A SPACE FOR INVESTIGATION

The complexity of the environment and the site's immersive nature, means that there was and is no "standard," ordered version of this course. Although there was a broad temporal trajectory from Task 1 to Task 6, the diversity of spaces, posts and references within the environment meant that it was not restrained by linearity. The

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[19] "An ethnographer who managed to leave the setting undisturbed,… would also leave their interpretations of it undisturbed by trial in practice." (Hine, 2000, 48)

interface could be explored and opened up at will and the movement of the observer/reader around it was one of authorship and personal choice. For the researcher, this raises issues about how to delineate the site as an object of study:

> The necessity of spatially limiting the research area is nothing new. The classic field had to be constructed as well. However the construction of the field was facilitated by the fact that fields seemed to have supposedly pre-constructed border anyway, geographic, social or cultural borders. Networks in contrast are somehow infinite, they are open structures and highly dynamic. (Wittel, 2000, url)

Unlike the classroom which is defined by class times and a clearly marked beginning and end, the defined units in the ICT in Education course were much larger; the tasks housed a great deal of work over a period of time. In this environment the researcher has the ability to shift his/her gaze between different "systems levels" (Capra, 1996) and follow specific elements of the site. One could carry out a close Discourse Analysis examination of individual posts, track threads/patterns of discussion, consider all of the postings from one username, or follow the relationship between usernames. Of course, it is possible to shift the gaze in similar ways in the real world; the observer can shift his/her attention from small details to broader contextual information. In *First Class* however, the amount of detail recorded provokes different sorts of challenges and possibilities. Certain sampling strategies are supported by the software, particularly the ability to design the view of messages. It is possible for example, to arrange messages by author in order to extract and focus upon the utterances of specific individuals, even though those utterances were made over a period of time and scattered throughout other posts.

I decided to take a relatively straightforward approach to sampling within the environment, which I hoped would challenge and address some of issues raised in the literature. 2 of the 6 tasks were chosen to be examined in greater detail: Task 1;

which involved each member introducing themselves to the group by posting an introduction in a central conference and by creating a resume document, and Task 3; a debate which saw the "class" being split into 2 teams who then had to argue for the pros or cons of the use of cmc in education. Due to the fact that these tasks housed a number of sub-folders, I therefore sharpened the gaze even further, isolating certain parts of them; the central conferences of both Task 1 and Task 3 and all of the student resumes of Task 1. In an attempt to be rigorous within these areas I read all the posts to the central conference of each Task in the order that they were posted to the site. I was also able to use a list of 'class' members to check that I had viewed all of the resumes available from Task 1. The raw "meat" of the data taken from the site therefore involved: 11 resumes, the 45 posts (or files) to the Introduction/Task 1 conference, the 169 files of the con team's conference and 182 files of the pros teams debate. Despite the delimitation there was still a lot of data to examine. Through the choice of these spaces I was, as Wittel notes; "consciously [participating] in the construction of spaces and in the spatialisation of difference" (Wittel, url), by focusing on only a small part of the overall course as system. This framing was however designed to give some representation of the activities within the site but also to feed my interest in the manner by which subjectivity is presented within this domain.

TASK 1

Task 1 was in some ways a version of the round-the-class introduction of the f2f environment, involving a public introduction of the private self. It served as a means of kicking off the course and generating communication between the students. In this

environment however, the introduction was to be preserved and was constructed using a different range of performative resources.

In creating their resumes, the students, like authors of personal homepages on the web had to decide; "What aspects of my 'selves' should I present?" (Cheung, 2000, 25). 4 of the students failed to create resumes. Those who did displayed a variety of interpretations of the task, as well as different uses of "expressive resources" (ibid.) available to them. The resumes ranged in design from the minimal and conventional c.v.-type presentation of lists of qualifications, education and work experience, to more chatty, informal and personal approaches. As well as providing personal email addresses, and thus opening up external avenues for more private communication, a number of students took up the opportunity to supplement details of personal/biographical histories with photographs. As one member commented "if you want to add a face to the name then I've added my pic" (Message on Introduction Board: "A Little About Me" 10th January 2003: 17:28:15). Such illustration of self served to offer a representation of the embodied identity which their words related to.

The central conference in which students were required to post introductions, saw a number of students repeating the information from their resume. This enabled comparison of the use of each mode of introduction. One student addressed each member in turn and thus transformed his introduction into an interactive event which 'called in' his colleagues, rather than just a presentation (Message on Introduction Board: No Title : 30th January 2003 01:10:35). Most students however used the same type of approach as they had done in their resume. The smalltalk within the conference enabled the participants to start establishing a sense of common-purpose and community and added to the sense of 'tone' and 'voice' of some of the names on

the screen.   As there was little disparity between the resumes and interactions on the board, these began to suggest a unified character "behind" the text; for example those with friendly and informal resumes posted similarly friendly and informal messages. However, the level of repetition and use of platitudes/friendly chat meant that the classmates did not give much away. Interestingly, in a number of the postings the students mentioned 'seeing' their fellow class-members around the First Class environment and suggested little fear that they would find it difficult to build relationships and get to know each other: "Well, I think that is all folks. See you around on this very interesting learning environment." (Message Titled : "Resume (About Me)" : 20 January 2003 : 18:21:54); "Look forward to e-meeting with everyone soon" (Message Titled "Introducing Myself, 27th January 2003 19:21:29).

TASK 3

Task 3 called for the students to demonstrate their ability to work collaboratively, to; "regulate themselves" whilst "providing collective goods and managing resources" (Kollock and Smith, 1996, url).   Members of the pros and cons teams had to divide up and take on specific roles – moderator, poster, researcher – which were regarded as having differing degrees of responsibility and influence.   They also had to work together to build cohesive arguments and a range of resources to back these up. In constructing their arguments for and against the use of cmc, the two groups were involved in contemplating their own practice – the task was thus an ontological debate about the nature of cmc constructed via the same medium. In this context, the problems and impulses of the groups (such as the moves to go outside of the cmc environment, or preferences for synchronous rather than asynchronous

communication), were revealing as they tied to the arguments regarding communication, distanced learning, and collaborative work that they were composing.

The move towards the posting of the final arguments and rebuttals of the debate was to see the two groups diverging. Their paths were to reveal different characteristics of not only individual users but also of the two teams. Their interactions did display moves towards the feeling of comradeship described by Jordan as essential to the 'virtual imaginary' (Jordan, 1999) which binds collectives. Expressions of belonging to a group were voiced in the first task with the sharing of feelings of apprehension, as well as excitement about embarking on working together. A 'tribal' mentality was expressed more extremely in a number of messages posted at the beginning of Task 3. One message titled "What have we let ourselves in for…" stated; "I feel over the next few weeks we are going to get to know each other VERY well!" and included the enthusiastic call to arms:

> "Good luck to us all, lets kick the cons cmc teams preverbial ass and win the 'golden key' - it's almost like a game of quidditch for all of those Harry Potter fans" (Pros team, 8th February 2003 10:47:15).

The task was thus configured both as a competition and trial against adversity. The stakes appeared raised by the fact that their work and progress was to be evaluated and that success required maintaining a productive working group.   Within the pro and cons 'clans', tension between "individual and group rationality" (Kollock and Smith, 1996, url) was to result in conflict and criticism within each.

The two teams had different styles of approach to the task. The cons team leapt from the starting blocks and immediately began to structure and organise their work and think about the division of roles. Resources and workload were rigorously classified and organised; "minutes" of meetings and progressions recorded, summaries of

agreements and tasks outstanding documented. Their approach was led and dominated by two participants, one of whom was to become moderator of the group and their input was to create a driving force which pushed their work onwards, often quite forcefully. In contrast, the Pros group appeared to take a less "efficient," but perhaps more sociable approach involving a greater number of postings unrelated to task. Strangely for a team arguing for the use of cmc, they appeared keen on moving to the real world in order to "get things agreed." The lack of clear leadership and disorganisation of the group was to increase when the designated moderator stopped posting to the board due to sickness (but also immediately after she had been called up on a message she had posted to the board - it remained up to the observer to decide whether the timing was consequential).

The difference between the two groups was brought into sharp relief by the issue of low-or-non participation which each group had to address, and addressed in different ways. In the cons group, the criticism of "free-riders" (Kollock and Smith, 1996, url) was approached in far more authoritative terms than by the pros. A few days into the task the moderator voiced concern that a small number of the group were carrying the rest, and was later to post a far more explicit condemnation at the end of the task (Message Titled: "In the end": 09 March 2003 : 23:43: 54). In the pros team, similar concerns regarding disparity of agency in the light of the absent moderator and lack of activity and the resulting "high confusion" and "low motivation were to arise:

> Hi team, although I'm not sure we have a team anymore............many of you have stopped posting messages and it seems stopped participating. As the deadline approaches I'm fearful that we shall have no arguments to post..............I'm at a loss for words, and if this is the norm of most CMC courses I feel the future for them looks grim. (Post to Pro team, titled "Dismayed" 23rd February 2003 19:22:04)

This ultimately resulted in the group requiring an extension (rumours of which were to feed into the conference board discussion of the cons team). Despite this, the pros

ultimately maintained a friendly façade. At the end of the task the cons finished with the exchange of recriminations, while the pros - who had appeared to have undergone far more serious organizational problems and haphazard movement towards completion than their opposing team - maintained an expression of humour and group feeling. To make things worse for the cons, the pros team were ultimately awarded the coveted 'golden key' after the official adjudicator declared them winners of the debate on point difference.

PARTICIPATION AND PUBLIC LIFE

The description of the two groups above rests on interpretation and coding of cues stemming from the nature of the "stylization" of the form of "virtual public life" (Featherstone, 2000, 177) in the *First Class* environment. Information about the students available in both Task 1 and Task 3 included their usernames - which served to provide a unified tag for their onscreen identity - and the nature and content of these postings. Their 'physical' presence on the screen was here measured in terms of the frequency and size of their posts which appeared to reflect their degree of involvement. Dominant characters thus became equated with dominant visibility, just like the more talkative students in the classroom. By posting more often, these characters, again like their real-world counterparts, provided more "matter" for the observer to work with in order to construct fuller notions of character.

The ability to track these username identities from Task 1 to Task 3, meant that I was able to examine the consistency/disconsistency of posts and my ability to recognise avatars which were successfully stable (Jordan, 1999, 59). The fact that I felt that I

had begun to 'know' some of these characters suggested the type of unified identity built via a heritage of consistent postings (Jones, 1999, 5) such as that described by Donath, talking about one of the participants in her study: "his voice is usually authoritative, pedantic, occasionally dryly humorous" (Donath, 1999, 39**).** I had no real desire to track out to the 'real' to see if the characteristics were founded in 'truth,' as my interest was with dealing with the workings of the site and the class within the context of the environment. My knowledge of the 'real world' versions of four of the students did, however, provide an interesting perspective on this issue. I was able to compare my understanding of these subjects f2f identities with their cmc avatars, and was to find little in the way of tension or separation between them. In the terms that O'Brien used, the elasticity did not seem very stretched.

While successful completion of the course involved undertaking 6 tasks it also involved maintaining an adequate level of participation set out in the guidelines on the course website:

> Students are expected to log in to the system a minimum of 4-5 times per week and to contribute regularly to the online discussions. Active participation is a requirement for passing the course (cf regular attendance on face-to-face modules).[20]

Such requirements need stable online identities linked to the "primacy of the individual" (Jordan, 1999, 60). The degree of participation of different members of the class was subject to a number of surveillance tools such as viewing histories of postings which is not always reliable as messages can be 'unread' but by which you can see who created the message and those who have opened it since. As well as this, members can look at another tool entitled; "Who's Online" and witness simultaneous use. The viewing history tool was utilised and referred to by

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[20] http://www.ioe.ac.uk/ccs/cmc/AbountFC

participants of the course, who proved quick to police levels of activity. Low-participating members were called to account and lurkers told to come forward and make themselves known. The number of posts generated by members of the teams were also called into this policing. The moderator of the Cons team, for example, noted the number of posts to date in a message titled "Participation and Non Participation" (Message to Cons Board: 17 February 2003, 30:54:35) – and presented a register of involvement which called low performers to task and reflected that "work" had slowed in the preceding few days. My own presence within the site was subject to the same modes of surveillance, not only were my viewing patterns recorded within the histories of each post I opened but on exiting, I was helpfully provided with a summary of my username's account statistics. My time within the field thus quantified and recorded, my sampling and viewing strategies becoming part of readings within the site.

As a result of the surveillance tools within this environment, reading but not posting does not equate with the shadowy act of lurking, as it is made visible, tied to the username of the reader and recorded in a way that is accessible to all (unlike records of visitors to web pages/usenets etc which are available to few). In terms of signifying participation however, 'reading' as recorded only equates with the opening of the document; it does not have to mean that any degree of attention has been paid to the content of the message; just as sitting in a classroom does not mean that you are concentrating on what is being said. The act of consumption remains beyond the screen. This unavailable space impacts upon the site in other ways, particularly in the undercurrents of one-to-one communication via personal mailboxes and f2f interactions referred to in a number of posts. These private interactions or "whispers"

(Ruhleder, 2000) flowed beneath the public façade of the course, often serving to undermine the notion of archival "completeness" (Featherstone, 2000) of the course content. When threads appeared disjointed it was unclear as to whether the authors were not linking their messages clearly (something picked up by the tutor who asked students to work on this), or other paths of communication were being used. The environment, like the f2f version, was thus a complex mix of presence and absence - a combination of the archived interactions and the unknown spaces and activities working through and around them.

The process of bringing these events and characters to life is one of an act of imagination, which calls in the agency of the observer as productive reader. It involves a specific version and interpretation of these events, which could be challenged by the experiences of those involved. As Kollock and Smith state despite seeing what others have seen on the screen:

> as with telephone conversations, there is much that is beyond the spoken word…postings cannot capture the private meanings people may intend or take from messages, Further, even more than records of spoken interaction, postings have an ambiguous tone." (Kollock and Smith, 1996, url)

The posts provided the material that each participant used to come to their own understanding of the course. Despite this potential ambiguity therefore, my reading of them was grounded in the same cues used by others on the course and thus served as triggers in the same way. The dramatic events of the two groups, such as the 'disappearance' of the moderator of the pros group, and the bitter recriminations of the cons moderator, gives this reading a sense of dramatic interest akin to perhaps, the fictions of the soap opera. Although I became immersed in what was going on, at no stage did I share the apparent frustrations or feelings of belonging and comradeship that a number of participants demonstrated. In this sense my 'restricted' level of

participation perhaps denied certain, more emotive aspects of the experience to me (although it was unclear if everyone on the course was feeling such emotions). Despite this then, and despite the absence of the 'true' nature of the students as bodied subjects, these dramas felt like powerful, lived experiences.

CONCLUSION

Each of the environments examined within this study raised a number of issues about educational practice in real and virtual settings, for each appeared to bear distinctive characteristics. The *First Class* environment pushed the students to negotiate a clear demarcation of roles and responsibilities, to demonstrate policing strategies and to precariously attempt to maintain a fair distribution of work throughout. In doing so it appeared to grant the students high levels of control, responsibility and autonomy. In contrast, the real world site could be described rather negatively in terms of collaboration and responsibility. The basic requirements placed upon the students here involved attending classes and handing in a piece of coursework, and many of the students appeared unwilling to contribute to the classes. These interpretations could, however, no doubt be challenged by members of the courses, who might describe all that they had learnt in the classroom, or the difficulties and frustrations of learning and working online.

My feeling is that the apparent differences in terms of agency and responsibility may largely have been due to a mismatch of empirical sites. If the real-world classroom had been presented online for example, it would have been represented by a far less 'interactive' type of cmc than the *First Class* environment. It is clear that in both f2f and cmc there are a variety of possible modes of engagement and that neither is restricted to one form in particular. There are many interesting areas for interrogation here. An alternative approach to this research project could have taken one of these issues and interrogated it in a more focused manner, using the analysis to challenge consideration of the method. The approach demonstrated in this dissertation may

offer broader readings of the nature of the sites, but still reveals a number of the central issues involved in dealing with each.

Consideration of methodology was the driving force of this work. It is perhaps unsurprising that shifting the gaze from the real to the virtual throws aspects of each domain into stark relief, and that they inform and challenge each other in ways that undermine some of the assurances voiced by proponents of both real and online research.   The quandaries of carrying out empirical research, generating understandings and readings of situations and subjects, appear highlighted within online domains. It cannot be forgotten however, that such issues are also "apparent in any research context" (Markham, 2003, url).   The development of innovative new research approaches is thus backed up by reconsideration of conventional methodologies, which serve to question the certainty of our real world understandings.   The effect of this reconsideration is still being felt within these texts:

> As we spend more and more time interacting remotely, we may erode out embodied sense of a risky yet trustworthy world that makes physical or human contact seem real. As this sense is weakened, even our daily "local" experience may take on an illusory quality and so seem to be in need of justification"
> (Dreyfus, 2000, 63)

Examining empirical domains in the light of such discussion serves to present the way in which apparent certainties can be easily unsettled and turned into strange mixtures of pattern and presence, discontinuity and lack.

The environments used in this project to represent the shift from real world to cmc domains, enabled me to apply consideration of the literature to 'workable' contexts. This revealed that in many ways engaging with either site involves the same issues and challenges, but that they are set within different forms of display and

performance. Most centrally perhaps, in each case the role of the researcher is to articulate and interpret the data offered by the site, relying on a type of performative epistemology described by Lankshear (2002).

In the *First Class* environment, the participant observer deals with social interactions configured as text as the; "distinction between conversational talk and the production of textual artefacts" begins to become blurred (O'Day et al. 1998, url). The building blocks of the interaction and collaboration are recorded and compartmentalised in great detail, the use of language is made explicit. In *First Class* the performance, or utterance, is the same as the archive of the utterance, whereas via observation the archive is constructed by the researcher. In some ways it thus exists out of time; it may be deleted or added to, but is not transitory in the same swift way as the movement in the classroom which is all about slippage and forward-movement. There, the researcher must retrieve and reclaim moments of significance from that which is observed. In *First Class,* with; "The artifactual textual traces of interaction created instantaneously, at the moment of the utterance" (Jones, 1999, 13) the researcher must similarly identify and retrieve such moments, but not configure them him/herself.

Some ethnographers might argue that my fuller participation in the f2f class lent me a greater degree of legitimacy than in the *First Class* site, granting me perhaps a more emic perspective. As discussed however, the nature of the *First Class* environment meant that I shared the same content in the same way as the other students. As Hine states, although cmc:

> "seems to pose problems for ethnography's claims to test knowledge through experience and interaction…. The position changes somewhat if we recognise

that the ethnographer could instead be construed as needing to have similar experiences to those of informants, however those experiences are mediated." (Hine, 2000, 10).

The fact that the site is experienced by the individual and the individual only, means that every understanding of this content is personal. From my own experience, the dramas of this site did not appear any less "real" than those in the real world; if anything the feelings appeared heightened by the intensity of the engagement and the mode of expression. Once again, the difference between the activities in the f2f and cmc sites must be considered.

In contrast, the real-world setting seems to present a broader pallet of cues and a wider range of modes of sensory information, which appear in their familiarity to be somewhat more straightforward. Although more space has been devoted to the consideration of the *First Class* course in this dissertation, more surprising revelations stemmed from the lack of expressiveness of the real world domain. However, once again I would suggest that the degree of expressiveness was regulated by the situation and mode of engagement, rather than the fact that participants were interacting 'offline'. These cues remained within a narrow range and generated an atmosphere of redundancy. The 'return to the real' in order to confirm the 'true' nature of subjects of research, has frequently been presented as providing the context necessary for fully understanding interactions. This context appears to involve access to the process of the construction of the utterance or the "interpretive work" of the subject; the work which is not shown/revealed in the utterance alone. The idea that the researcher can somehow access, reveal and visualise intentionality and acts of authorship is somewhat dubious, as a legacy of literary theory has shown. My access to the creation of utterances by the real-world classroom participants did not reveal much about their construction practices. Instead, what I experienced frequently resembled

the embodiment of a one-way communication model, with the class members as the "allocutive audience" of the lecture or concert (McQuail, 1997, 38). This lack of cues was discussed in Ruhleder's paper on the LEEP project. At one stage, the decision was made to videotape participants' "interpretive work" at their computers and here too the problem of visual redundancy arose:

> We tried videotaping students attending synchronous classes by starting up the video camera, but not remaining in the room with them, We found that, unless there was heavy interaction with others in the physical environment, all we got was a very dull video of someone sitting in front of a computer, looking and listening. (Ruhleder, 2000, 10)

The uncertainty within their "looking" and "listening" reminds me strongly of the description in my fieldnotes devoted to the "apparently listening" of the students in the classroom. The response of the LEEP researchers to this lack of cues was to take a more involved role in order to "extract" information by using "think aloud" techniques (ibid). In a similar way, within the classroom environment, my feeling was that more 'digging' would be required to get a tighter grasp on what was going on. Whereas in *First Class* the lived world is all about detail, activities in the classroom triggered the desire to work towards more detailed description; to look at the minutiae within broad patterns perhaps through the use of other recording tools (such as audio or video-recording). The introduction of such technologies would replicate the mechanistic level of data available in *First Class* (if not more so). Writers who celebrate the nature of f2f cues such as Fontana and Frey also appear to anticipate such interrogation and negotiation of meaning. The issue revealed in the field however, is that 'knowing' from f2f is not always telling or straightforward in terms of 'thickness'. The cues may be rich in terms of physicality, but meaning is distinct from them.

Within a larger study, the articulation of data could be supported by a broader range of source material which might work to close the gap between the understandings and experiences of the participants of the two courses and myself. This would perhaps enable a more "encompassing" and "integrated" understanding of the field (Huberman, 1984), by providing a different range of cues, performances and perspectives. The use of participant observation, however meant that consideration of the forms of production of identity and 'self' and modes of communication in each site, and my 'knowing' of them, remained central to the study. As we have seen, these issues fuel a great deal of the debate surrounding virtual methods.

Even though many of those who claim to have moved on from the "naive realism" (Robson, 2000, 189) of the search for 'touchable', 'knowable' essences, still often betray a desire to return to the source. When this desire is in context of an interest in the interplay between avatars and offline identities for example (or between on and offline use of technology), the move out to the real world appears to be a natural one. When it is designed in order to confirm the 'online' understandings of the researcher, the reasoning becomes murkier.

In each site the articulation of subjectivity was presented by a range of cues, and my role was to attribute unity from the triggers presented, to transform; "fragmentary structure… into the completeness of an individuality" (Donath, 2000, 303). In both the virtual and real then, identities were constructed from groupings of contributions and markers and possibilities for "impression management" (Chandler, 1998, url). In each environment, subjects presented themselves as at once open and reserved, each site holding back as it revealed. Lack and absence is problematic for the researcher if

they are aiming to get a "total" or "true" picture of what is going on – a desire apparently inherent within the notion of authenticating understanding through f2f experience. Ruhleder notes with apparent sadness that; "Even all of our best efforts still leave us with no way of knowing precisely how participants experience the virtual class" (Ruhleder, 2000, 10). In fact both f2f and cmc sites demonstrated the impossibility of such a desire. Each site shared the "problem of observability" noted in context of lurkers and lurking – for each housed "potential interactants who choose to remain silent, and potential authors who fail to write" (Hine, 2000, 54). In both cases, those who refused to enter into discussion in the classroom, and those who failed to post messages on the *First Class* system were in some ways "lost" to the analysis.

The juxtaposition of sites and contexts which was to run through my interactions with these students did offer glimpses that worked to fill out my understandings of them. This led towards a more multi-sited approach which was totally unplanned. In the "real world" context, bumping into students outside of the classroom in more informal and less restricted settings presented different facets of them to me. Knowledge of the offline nature of a number of the online avatars of the *First Class* course had the same effect, offering another facet and confirmation/disproving elements for my understandings of them. This facet was no more useful, or more authentic than their online 'virtual' presentation, just different. A number of the members of the *First Class* group attached images of themselves to their resumes. I was left wondering what the real-world class members would be like as online avatars...

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