Punjabi Women and the Internet: Four Case Studies

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Abstract

Previous studies on the Internet have been largely concerned with examining on-line behaviour and the ways in which individuals interact in certain on-line environments. These studies have contributed in shifting notions of how the Internet is defined. Nevertheless, there are often discrepancies in the work and the results appear to be generalized to quite an extent. The purpose of this research is to explore the ways in which Internet users contextualize their on-line activities with their off-line lives and how this can affect identity construction, an aspect that is evidently missing from most Internet research. Identities appear to be constituted through human interaction. Computer-mediated communication has become a new means of human association. Identities are defined as being multiple, diverse, transformative and unstable. Internet practices by individuals are thought to mirror these characteristics. The Internet is helping to re-define concepts of community and the self. In addition, individuals who use this medium are thought to be integrating on-line and off-line settings, creating networks that are multiple and varying. Despite this, there are mixed assertions that Internet use is based on polar distinctions that categorize Internet users into either/or binaries. The findings in this study complicate many of these ideas. Through single interviews and narratives of Internet use, this research presents four individual case studies on the Internet practices by Punjabi women who have limited technical backgrounds. The Internet practices are diverse whereby the four women recruit the Internet to suit their own individual needs.

1. Introduction

So far, discussions about the relationship between human association and the Internet have portrayed the new communications technology as an "identity laboratory, overflowing with props, audiences, and players for our personal experiments", (Wallace, 1999: 48). A single geographic space or location does not bind the Internet. Instead it is constructed through a plethora of interconnected networks. The possibility has arisen for individuals living in different parts of the world to communicate with people whom they are less likely to cross paths with in their own physical spaces. Users can jump from one on-line environment to another with few restraints in a medium that lacks direct 'in person' cues. Thus individuals may display themselves in ways that they might not do so in their everyday lives. For example, one particular individual may choose to enter multiple 'chat rooms' and present a different persona each time by altering gender, user id, personality traits and so on. Much of the discourse that surrounds the Internet is consumed by fascination with this appealing facet of on-line identity experimentation. These discussions focus almost entirely on examining on-line identities that are somehow viewed as being separate and distinct from everyday selves.

The Internet is constantly being re-defined. As the demographics and nature of Internet use change overtime, concepts that have been used to discern the Internet up until now require some form of re-contextualization. The kinds of people that use the Internet have clearly changed. Individuals who are attracted to this medium come from different backgrounds. Users of the Internet are no longer simply hackers, programmers or hobbyists. The

research in this thesis presents individuals who use the Internet for a number of reasons. They are not involved in new technical innovations and have shown little interest in learning to 'programme' or create personal web pages. Their motivations for connecting to the Internet have in fact little to do with 'experimenting' with identities. For many, Internet use is entwined with their everyday lives. Internet users bring distinct meanings to this medium and use it in ways that suit their own needs and desires. Computer-mediated communication is just one of the ways in which identities are constituted and continually reconstructed.

The Internet itself has developed in numerous ways. Even before the emergence of the Internet, it was possible to connect computers to telephone wires, (Winston, 1998: 322). The Internet, however, has been cited as originating from a system that dates back to the 1950s. With the threat of nuclear war, military computing systems in the USA were linked to each other to protect private information and cease the risk of losing any data. In the proceeding years, it became possible for academics to share information between various universities and higher institutions. Two operating systems developed. One was the ALOHNET - inter-linked radios that were used to "network the University of Hawaii's computers" and the other, SATNET – a system of satellite links, (Winston, 1998: 325). The Internet has progressed from being used in this way to becoming a social and cultural tool. As a "social engine", it is modifying and re-contextualizing relationships, practices and identities, (Jones, 1999: 2).

With the rise of the Internet, a lot of the information available has centered on personal experiences of this medium. The current 'hype' that has infiltrated computer-mediated discourse is based on observations and little empirical research. Some of these include experiences of meeting individuals off the *net* in 'real' life. Andrea Baker charts on-line interactions that have gradually lead to off-line relationships, (*Cyberspace Couples Finding Romance Online then Meeting for the First Time in Real Life* 1998). The Internet is seen to be a positive way to meet compatible and like-minded people. The problem with Baker's observations is that the ways in which she gathers data to validate her statements are not explicit or made clear. In some cases the observations are extreme. The Internet is portrayed as providing individuals a 'voice'. Ellen Baird presents a very generalized account of life in an American Indian 'chat room', (*Ain't Gotta Do Nothin But Be Brown and Die* 1998). Some are purely anecdotal. Cyd Strickland writes about the experience of being part of an on-line community, (*A Personal Experience with Electronic Community* 1998). As Internet use diversifies, the 'Internet experience' is also beginning to vary. With this in mind, approaches to examining the Internet and recording experience cannot just be captured through observation but a more methodological and detailed approach.

In this study I present four case studies of young Punjabi women and their Internet practices. Despite recent celebrations of 'cyberfeminism' there is insufficient research into the new communications technology when relating to female users. Further, there is even limited scope in the intersection of

ethnicity and the Internet. I have attempted to investigate the types of on-line environments that the subjects in this research inhabit, how their on-line and off-line environments are integrated or distinguished, and the ways in and extent to which their on-line practices converge and intersect with their everyday lives. My results showed that despite gender and ethnic affiliation, Internet use is diverse.

The subsequent chapters of this research are outlined as follows: in chapter 2 I will review key concepts of identity in relation to computer-mediated communication as well as the Internet and community before examining some existing research into Internet use and the female-techno relationship. I'm particularly interested in how these studies and concepts have been developed and the ways in which they may initiate further research. In chapter 3, I will briefly explain the methods that have been applied in gathering the data in this study. This includes the sampling procedure, research process and methods of analysis. My approach towards this research has been grounded in ethnographic means. I present the case studies in chapter 4 before summarizing this section and drawing the data together. In this chapter, I will describe in detail each individual's Internet practice within thecontexts of her background and lifestyle amongst others. Finally, in the last chapter (5) I will attempt to compose the findings and tie them into other empirical studies and ideas that have been discussed in the literature review. As the research comes to a close, I shall reflect upon the study and look towards the future of Internet use and Internet research.

2. Literature Review

IdentityIn examining the rise of the Internet and self formation, James Slevin claims that our identities are constructed through human interaction and association, and are constituted via communication technologies, (*Internet and Society*, 2000). The impact of the Internet extends to our everyday existence and understandings of one's individuality. In particular, text based communication has become the site for constructing personal identity, a "project of the self in which individuals are actively and intelligently involved", (Slevin, 2000: 57). Unlike conventional forms of verbal and physical communication, interactive text environments such as e-mail and Usenets, require one to 're-think' about and 'reflect' upon the self where identities are constructed through the continual process of 'self-reflexive' re-contextualization.

> Today, under conditions of reflexive modernization, individuals are faced with having to use communication technologies such as the internet in their attempts to refashion the project of the self and attempt to steer it through an increasingly uncertain world of baffling complexity,
>
> (Slevin, 2000: 57).

This new form of human association in 'late modernity' heightens one's awareness of the instability and uncertainty of the self. Moreover, this points to a correlative relationship between communication technologies and the self where the nature of identities that are formed depend upon the nature of the communication technology itself. For example, the Internet inhabits various environments from e-mail, Internet relay chat (IRC), the world-wide web (WWW)

and so on where the mode of information can be diverse, multiple and in constant flux. With an assortment of varying forms of interactive environments, the constructed self can be easily understood as sharing similar characteristics of *multiplicity*, *diversity*, *transformation* and *instability*.

Although Slevin does not contextualize his discussion within postmodernism, his analysis of the Internet is tied to many areas and concepts of postmodernist thought. Mark Poster claims that the new communications technology is restricted by modernist theory that concentrates more upon technological and political transformations as opposed to cultural and social ones (*Postmodern Virtualities* 1995). He therefore proposes that by entwining concepts from postmodernist cultural theory and new communications technology, an appropriate theory that generates a greater understanding of both postmodern culture and 'new media' can be produced:

> If modernity or the mode of production signifies patterned practices that elicit identities as autonomous and (instrumentally) rational, postmodernity or the mode of information indicates communication practices that constitute subjects as unstable, multiple and diffuse,
>
> (Poster, 1995: www.humanities.uci.edu/mposter/writings/internet.html).

The self in postmodernist terms can be defined as being multiple, fluid, incoherent and non-essentialist. In other words, the self is constructed of several co-existing identities that are myriad, unstable and have no underlying unity that renders the self as 'whole'. What this appears to suggest, is that in contrast to postmodernism, identities in modernist terms are static, coherent and unitary in

that individuals have a single core self. To the extent that multiple and unstable identities are a new phenomenon and only applicable to postmodernity, can be severely contested. It is likely that identities have always been constituted through human interaction and share 'postmodern' characteristics but the way in which identities have been conceptualized has varied. Notably, studies and discussions on the relationship between identity and the Internet have themselves shifted from modernist conceptions to postmodern ones. This shift can be recognized in the work by Sherry Turkle. Her analysis of the Internet and identity construction has moved from computer users being categorized into fixed either/or binaries (*The Second Self: Computers and the Human Spirit* 1984), to identities as being fluid, hybrid and contradictory (*Life on the Screen: Identity in the Age of the Internet* 1995). In the following I will examine some of the key characteristics that have been explicitly associated with the Internet and are directly or indirectly linked to postmodernism, before tying them to specific aspects of identity.

*Multiplicity/diversity*Even though ideas on 'multiplicity' and 'diversity' exist in both modernist and postmodern theories, they have been conceptualized in distinct ways. In the former, the self is understood as being polymorphous and yet unitary (Rappoport et. al.1999: 99). The various aspects of the self are linked to each other and correspond with the different stages of one's life, often following a rigid and linear pattern. Each stage is sign-posted by a role that an individual inhabits. For example, at distinct points of their life an individual will move from child to adolescent to professional to parent and so on. According to postmodernist concepts, however, the multiple selves that one 'embodies' exist simultaneously whereby the individual can draw on and utilise their diverse roles as they move throughout the life span, (Rappoport et. al 1999: 99). The Internet has contributed by re-enforcing this but in a highly conscious way. Computer-mediated communication has paved the way for individuals to explore and experiment with alternative and distinctive identities as well as to forge new ones. This can take the form of 'role-playing' in Multi-Dungeon User Domains (MUDs); experimentation in IRC i.e. through 'cross-gendering'; or autobiographic narratives in e-mail communication. Within each of these environments, users can consciously 'flesh out' the multiple and diverse facets of their identities.

To emphasise how simultaneously diverse and multiple one can be, Turkle tends to use the metaphor of 'windows' to demonstrate the fragmentary nature of identities (*Life on the Screen….*). There are as many selves as there are windows on the screen. An individual may be using up to four or five windows, each representing a distinct aspect of their Internet practice such as 'chat', e-mail etc. These windows co-exist but are dispersed and

disconnected. According to Turkle, the self is reflective of this, as heterogeneous and fragmented. Further, Turkle attempts to add weight to this argument by analysing users of the MUDs

environments to examine the ways in which ‘cyberspace’ encourages greater multiplicity and awareness.

MUDs is a game environment that is constructed through interactive participation. Users adopt various roles that are based on fantasy images from animals to aliens, humans to objects. By typing commands into a small window in ‘real’ time, they can move through ‘rooms’, interact with other participants and build more environments within the MUDs depending on their technical skills. In MUDs, users not only experiment with their identities but also deconstruct boundaries between reality and fiction, authorship and audience. MUDs are based on fantasy and imagination, however, they are played by ‘real’ people in non real environments. In this sense, reality and fiction merge. Significantly, MUDs are also quite similar to traditional ‘fantasy’ books where readers can determine the fate of the story. In these stories readers are required to move through chapters selectively so that there are several endings within the same book. Due to the synchronous nature of MUDs, the stories are determined in the playing of the game. There is no fixed ending.

Multiple identities diverge into three main forms in MUDs. Users can adopt either one or many from a variety of roles every time they enter into a game utilizing as many aspects of their themselves as possible. They can also present themselves in ways they aspire to be. The ‘idealized self’ tends to be quite distant from their everyday roles. Thirdly, an individual can have one long-term role that isn’t as far

removed from their everyday life. In all three cases, however, the nature of this type of environment requires the individual to draw on fantasy and imagination to some extent. The on-line persona (s) could be separate from the off-line self or alternately be an extension of or entwined with the off-line self. In Turkle’s analysis, MUDs are part of an ‘alternative’ or ‘parallel’ world. Nearly all of the participants adopt roles that are distant from their roles in the everyday. Rarely are the MUDs world and the everyday entwined, thus re-emphasising the fragmentary nature of identities. Despite this, Turkle believes that playing in the MUDs type of environment can encourage greater awareness of one’s identity formation, especially in off-line settings.

Multiple role-playing on the Internet can promote greater self-reflexivity. Understanding how identity is constructed on the basis of social conventions can enable the deconstruction of social stereotypes. Turkle discusses cross-gendering in MUDs: “the virtual personae one adopts within them are objects-to-think-with for reflecting on the social construction of gender”, (Turkle, 1995 :213). Experimenting over the Internet in this way requires a great deal of thought and self-examination into how a specific role should be constructed in order for it to be believable (even if it is fantasy). A male wishing to pose as a

female may need to ‘learn’ some social rules and conventions of being ‘feminine’ to give his/her role validity. In this sense, the multiple roles that are played on the Internet can lead to deeper awareness into how identities are created on the basis of conventions both on and off-line.

Although Turkle raises some important points, there are elements of her research that are ambiguous. Turkle’s discussion is based on an ethnographic study into MUDs users. However, her work appears to be too generalizing and lacking in the kind of diversity that she appears to advocate. Turkle presents several narratives. However, at no point is her methodology and research process made explicit. Firstly, her sampling procedure is not clear. Secondly, Turkle’s subjects are individuals who have severe psychological problems. Nearly all of them have used the MUDs as a form of escape and for many has escalated into further depression. Thus it is not surprising that the MUDs appear to be a form of ‘alternative’ or ‘parallel’ interaction. To what extent on-line and off-line identities are separate, and how it may vary for different users, is not considered. Turkle also concentrates whole-heartedly on MUDs – very rarely comparing or contrasting her findings with other Internet environments. Lastly, even though Turkle attempts to contextualize MUDs interaction within user’s off-line lives, she does not do this on the level of the everyday instead narrating the more dramatic aspects of the users’ lives. A significant step might be to research this area within the context of everyday activities, relationships and lifestyle.

*Transformation/instability*Turkle’s study suggests that our multiple selves are disconnected and dispersed. On-line identities are distinct from those off-line. Users are thought to interact in ways that they would not normally do so in their everyday lives giving rise to

ideas of ‘alternative’ and ‘parallel’ identities on-line. In this sense, it almost seems possible to construct ‘new’ identities over the Internet. Although Turkle’s ideas are not entirely invalid, this tends to be the main flaw of most Internet research. The Internet does enable experimentation into different and varying roles but to the extent that they become completely new can be questioned. Identities are not necessarily fragmented but often intersect, collide and contradict. With increased and intense globalization, the self in postmodernity is thought to be dynamic, mutable and constantly being reinvented.

> The already observable conditions of life in postmodern societies appear to be such that ready access to alternative views of the self is necessary for effective adaptation. In the face of rapid change, reinvention of the self cannot wait upon gradual development ‘starting from scratch’. Instead, individuals require the capacity to draw upon prepared alternatives or, in military jargon, ‘prepositioned resources’. This does not necessarily mean fully formed alternative personas, but armatures: skeletal structures that can be quickly fleshed out to meet the demands of new situations,
>
> (Rappoport et. al. 1999: 99).

The Internet has become another site for constructing identities. Old identities are not discarded but are used to contextualize new ones. In this sense, the self is continuously being explored, negotiated and changing. S. Zohreh Kermani examines the relationship between 'place' identity and 'personal' identity pointing to a tight correlation between the two (*Hyperidentities: Relocating Place Identity in Narrative and Cyberspace* 1998). Rapid movement and migration in postmodernity requires individuals to re-construct new places and new identities. However, they are not completely new but transformational and unstable. The Internet has become a new place and subsequently a site for re-fashioning our identities. This not only means that we have to re-define our concepts of 'place' but 'identity' too.

Kermani defines three types of site – as *place*, *non-place*, and *not a place at all*. 'Place' is characterised in terms of geographical space and familiarity. In other words, identities are defined through neighbourhood ties, history and shared significances. 'Non-place' is defined as transitory where there are no roots but continuous flow and movement between people who may not know each other but share the same space. Airports embody these characteristics. Thirdly, 'not a place at all' defines the Internet. Paradoxically, the Internet is both a *place* and a *non-place*. The Internet promotes flow and information between people who may or may no know each other but it is also historical, inhabits various communities, and can thus be constituted as a *place*. There are many location markers on the Internet that define it in terms of space and familiarity such as domain names, home pages, e-mail addresses and so on. Text communication, personal web pages and electronic communities enable individuals to construct and re-construct their identities through narratives of the self. Such narratives according to Kermani, can establish group and personal identity. An individual can belong to more than one community and have diverse sets of networks. In this sense the narratives themselves are multiple and contradictory. Kermani calls them "transformational narratives" – fluid, simultaneous and fluctuating.

As a *non-place*, the Internet is unstable and transitory. With the constant surge of information, loss of information, growth and loss of users and electronic communities, the ephemeral quality of the Internet means it is regularly undergoing transformation and being re-defined.

Gender identitiesThe relationship between ICTs and gender has been significant to researchers and theorists in charting how technology is related to gender identity and the ways in which the different sexes utilize computers. Moreover, there has been a shift in the way that this relationship has been theorised. In pre-postmodern conceptions, ICT practices have been recognized as being 'reflective' of rigid gender distinctions that categorize men and women through conventional binary systems. Turkle's exploration of 'computer culture' emphasises gender differences in the way that computer 'hardware' and 'software' are personified and related to 'male' and 'female' practices, (*The Second Self…*). In postmodern conceptions, however, human interaction with technology is more explicitly connected where the male/female dichotomy is further complicated. These ideas have been central to Donna Haraway's essay on 'cyborgs' (*A Cyborg Manifesto* 1993), in her examination of the human/machine association.

The 'cyborg' is a hybrid between 'machine' and 'organism, and 'reality' and 'fiction'. These paradoxical couplings are "fruitful" because they challenge

conventional borders based on binary distinctions. Haraway claims that this is a

> positive sign. The metaphor of the 'cyborg' can initiate historical and political transformation in academic disciplines and the 'everyday': "The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation", (Haraway, 1993: 272).

The 'cyborg' is ambiguous and androgynous. The human/machine alliance confuses male/female distinctions. 'It' borders between both and yet neither, and is therefore *unstable*, representing a "post-gender world". The 'cyborg' can also be replicated. It is *multiple*, *diverse* and transitory, undermining what is deemed to be 'natural'. In academic terms the 'cyborg' destabalizes western discourse that is based upon distinctive hierarchy. The 'cyborg' has become a metaphor for a multiple and diverse feminist politics. On the level of the 'everyday' the 'cyborg' can be recognized through the relationship between the new communications technology and gender identity. Two main points emerge. Firstly, the growing and paradoxical relationship between women and technology (previously the terrain of men) in both the home and work place, has demanded the re-definition of male/female roles and conventions. Secondly, the ensuing 'cross gendering' that results from this 'merger', requires gender identity to be re-contextualized.

Following on from Haraway, most feminist writers have been concerned with the diversity and instability of gender identity. The female/technological affiliation has been cited as destabalizing human identity where male/female identities previously established through conventional means are now complicated

(Plant, 1997: 505). Gender identity is based on social and cultural constructs, constituted through human interaction and is itself contradictory, (West & Zimmerman, 1991: 13). This is amplified with the introduction of the new communications technology. In the context of the Internet, gender identities are multiple, diverse, unstable and transformative. Jodi O'Brien examines gender construction on-line (*Writing in the Body: Gender (Re) Production in Online Interaction* 1999). Contrary to Haraway, O' Brien suggests that gender identity still exists on-line despite optimistic ideas that claim on-line interactions are somehow devoid of gender and that the Internet represents a post-gendered world. O'Brien claims that the constant fascination with gender on-line whether through cross-gendering or biographical data that is required in most on-line settings, simply serve to underscore the male/female dichotomy: "Once we travel beyond the frame of a gender-bound reality we are in an uncharted realm. The tendency in such a "space" is to (re) impose a meaningful order by mapping the space with known categories of distinction", (O'Brien, 1999: 87). This is a valid area to observe when looking at the relationship between users and their Internet practices, in particular the significance of gender in Internet environments and the extent to which they may impose or subvert gender distinctions.

Ethnic identitiesOne's ethnicity is tied to cultural, historical and shared experiences. Overtime the meaning and value that a certain ethnic identity takes can vary between different

individuals and alter at different stages, (Liebkind, 1992: 155). Therefore, ethnic identity is also subject to transformation. This is particularly applicable to people whose roots may be embedded in another culture, for example, individuals who have migrated from Eastern countries into the West. Second or third generation immigrants may function in one or more cultures and use "part-identifications" to define them, (Liebkind, 1992: 159). The extent to which these "part-identifications" lead to cultural conflict is challenged.

Avtar Brah examines Asian migration into Britain, studying the ensuing impact on cultural identity of the members of a diverse Asian society, (*Cartographies of Diaspora* 1996). Brah finds that multiple and diverse identities including ethnicity, often overlap, intersect, conflict, reconcile, contradict and contest each other. Although there is potential for cultural conflict, Brah claims that identity should not be reduced to a single determinant. Instead, ethnic identity intersects with so many facets of the self that includes aspects of gender and class amongst others. "Part-identifications" may not necessarily clash but are immersed into an individual's everyday living where diverse cultures interact and fuse into a "cultural symbiosis", (Brah, 1996: 41).

The ways in which this is apparent on-line and to what extent is a question that Byron Burkhalter deals with in his analysis of racial and ethnic identities on the Internet, (*Reading Race Online: Discovering Racial identity in Usenet Discussions* 1999). In Burkhalter's observations, ethnic identity can be construed on-line through an individual's perspectives, beliefs or attitudes, (Burkhalter, 1999: 62). Racial identity is consequential. Burkhalter's analysis is restricted solely to Internet interaction in an asynchronous environment. How this may be observed from the perspective of Internet users is a likely step forward into future research. In the meantime, it would be interesting to explore how ethnic identities intersect and coincide with Internet practices, the kind of networks that are formed and how cultural identities either fuse or contradict.

Internet and community Computer-mediated communication is just one of the ways that the sense of community is constructed and sustained. With a plethora of electric communities that are forming on the *net*, communities in both on-line and off-line settings are now being re-evaluated. Traditionally, 'community' has been defined in terms of close proximal links, neighbourhood ties and kinship. On-line communities are multiple, diverse and fluid, and can adopt various meanings. These communities span the globe and tend to be based on similar interests and shared experiences. For example, a Punjabi web site that is constructed by public debating forums, attracts participants who have Punjabi roots to some degree, from different areas of the world (Punjabi Network). Users have no prior interaction off-line and are connected through cultural affiliation rather than a specific geographic space. On the other hand, in some communities, individuals do normally have interaction off-line through neighbourhood ties and hobbies. Many of these relationships proliferate on-line via shared e-mail communication such as through messages

disseminated to large groups and tend to be structured around one individual. Most servers and network providers also offer individuals the chance to build their own free communities. These communities are much more privatized and can include a mixture of both on-line and off-line acquaintances. The following is a brief outlook at how on-line communities are being defined.

Up until recent studies, on-line communities have been described as being ‘alternative’ and ‘new’ to those off-line. Communities built on the Internet and those established off-line have been separated through metaphorical distinctions of ‘virtual’ and ‘real’. On-line communities are thought to be less authentic because they do not fit into conventional notions of what constitutes a community. Elizabeth Reid attempts to observe the ways in which the structure of IRC encourages users to deconstruct conventional boundaries between speech and writing and how a new culture is formed as the ensuing effect (*Electropolis: Communication and Community on Internet Relay Chat* 1991). IRC is probably the most flexible Internet environment that allows users to experiment with diverse and multiple personas. Users of IRC environments are presumed to have no off-line communication. They not only share similar environments but have also created a new language through the process of interaction. An ‘alternative’ community is formed as users ‘construct new methods of creating shared signficances’. The kind of community that is produced is distinguished from traditional forms of community that have been based on closeness and some aspect of physical interaction. Due to high levels of anonymity and lack of ‘in person’ cues in IRC, there is a sense of distance and thus becomes an ‘alternative’ form of interaction. Reid’s observations of on-line communities as ‘new’ and ‘alternative’ are not so dissimilar to Howard Rheingold’s examinations.Rheingold’s approach towards on-line communities is anthropological and anecdotal He has been a long term member of an on-line community called the WELL – a San Francisco web site that allows users to discuss any subject from parenting to computer science in asynchronous conference rooms. The WELL is an eclectic and heterogeneous community, attracting individuals from various backgrounds. Through an earlier analysis of the WELL, Rheingold believes that the Internet inhabits multiple and diverse social spaces that are akin to off-line locations (*A Slice of Life in my Virtual Community* 1992). ‘Cyberspace’ is the ‘third’ place after home (first) and work (second). He appears to be suggesting that off-line third places are being eliminated.

> As ray Oldenberg revealed in “The Great Good Place” there are three essential places in every person’s life: the place they live, the place they work, and the place they gather for conviviality. Although the casual conversation that takes place in cafés, beauty shops, pubs, town squares universally considered to be trivial “idle talk”, Oldenburgh makes the case that such places are where communities can arise and hold together. When the automobile-centric, suburban, highrise, fast food, shopping mall way of life eliminated many of these “third places”, the social fabric of existing communities shredded. It might not be the

> same kind of place that Oldenburgh had in mind, but so many of his descriptions of 'third places' could also describe the WELL.
>
> (Rheingold, 1992: www.interact.uoregon.edu/medialit/fa/mlarticlefolder/aslice.html.)

Rheingold separates on-line and off-line locations through metaphors of 'virtual' and 'real' even though he insists that an on-line community such as the WELL is as authentic as any other. The Internet as a third place is slightly ambiguous. For example, many individuals now have Internet access at home and in the work place, merging the third place with the others. For individuals like Rheingold who work from the home, all three physical spaces are utilized. More importantly, Cybercafes merge traditional communal spaces with the 'new' on-line locations. In this sense, on-line and off-line communities are not as clearly distinguished. A significant difference between 'cyberspace' and traditional third places that would normally promote another activity is that many environments within the Internet are solely for the purposes of communication. To the extent that conventional third places are being eliminated can be questioned. There isn't any empirical data presented to suggest this. In a further analysis, Rheingold examines the way in which on-line communities have transcended to those off-line, once again bringing the two closer together, (*The Virtual Community* 2000).

By describing on-line communities as alternative and new, a rigid dichotomy is constructed between on-line and off-line social interactions. Off-line communities are recognized somehow as being more 'real' even though this does not appear to be the actual case. A way forward is to examine how diverse on-line communities can be and the extent to which they are distinguished from or integrated with those off-line.

Communities are now being re-defined as 'private network communities' – as 'social networks' that are often centred round one individual rather than large groups. A 'network' in this context can be loosely defined as a group of interconnected people who interact and intersect across complex lines. Various networks can create or maintain transitory communities. With diverse interests, needs and desires, people often belong to many communities, some of which may overlap. These social networks can also span the globe and are not confined to one place. Computer-mediated communication simply serves to maintain these ties as well as to create new ones. As Barry Wellman and Milena Gullia have noted, social networks that fit the above description are evident in both on-line and off-line settings (*Virtual Communities As Communities: Net Surfers Don't Ride Alone* 1999). The authors claim that so-called 'virtual' communities are real even though on-line relationships may actually foster weaker ties.

> There is so little community life in most neighbourhoods in western cities that it is more useful to think of each person as having a personal community: an individual's social network of informal and interpersonalties, ranging from half-dozen intimates

> to hundreds of weaker ties. Just as the Net supports neighbourhood-like group communities of densely knit ties, it also supports personal communities, wherever in social or geographical space these ties are located and however sparsely knit they may be (Wellman & Gullia, 1999: 187).

Wellman and Gullia argue that on-line and off-line communities are alike in many ways. In most communities, the relationships are either 'narrowly specialised' or 'broadly supportive', and sometimes both. By 'specialised' they mean that individuals form relationships based on shared interests or the desire for companionship. They are 'broadly supportive' in the sense that individuals can broaden their interests by offering support, information and help. This patterns the Internet practices of one of the research subjects. On-line communication is based upon religious affiliation. News on current issues, events etc. are available through extensive messages via e-mail communication that the subject often sends out to provide information and spiritual support. Relationships in off-line and on-line environments can be spread across more than one medium. Individuals either use the Internet to support and compliment off-line ties or on-line interaction can eventually expand to other internet environments and then possibly extend to off-line.

The on-line/off-line dichotomy

So far, investigations into on-line interaction have rarely been contextualized by off-line communication and the 'everyday'. Most examinations of the Internet construct a rigid dichotomy between on-line and off-line communication and relationships. 'On-line' has been used to refer to Internet practices such as 'chat' conversations and searching the WWW. 'Off-line' is assumed to mean 'in person' or face to face contact; interactions via other mediums such as radio and television; or telephone communication. However, these mediums merge into one another in more than one way. For example, most Internet features now include 'voice conversations'; Internet access would not be possible without a phone line connection, and several radio and television shows are constructed by listener and viewer participation through telephone/e-mail interaction. The boundaries between what constitutes on-line and off-line communication are not as clear as they would appear to be. Metaphors such as 'real' as meaning off-line and 'virtual' to describe on-line practices have only contributed by re-enforcing this polarization. Very rarely are the two seen to be over-lapping.

In recent research certain communication theories relevant to off-line associations have been extracted from their settings and used to analyse on-line behaviour. Theories on social interaction by sociologist Erving Goffman (*The Presentation of Self in everyday Life* 1969) have been applied to studies on Internet relationships and behaviour. Principle concepts from Goffman's analysis such as 'role playing' and 'idealized self' have either been applied directly to describe on-line personas (*Erving Goffman, Dramaturgy And On-line Relationships* 1997), or to explore how these concepts can be used to explain the instability of identities on-line (*Identity And Deception In The Virtual Community* 1999). Although these studies are valid to an extent, they

have not been contextualized by off-line settings, focusing entirely on on-line behaviour and hardly from the perspective of users. In the following, I will examine significant research conducted by Robin Hamman that attempts to bridge this gap.

Hamman is interested in questioning the sort of practices that individuals are involved in on-line, what the general motivation behind Internet use is, and to what extent the on-line/off-line dichotomy can be deconstructed. As a long-term member of the internet service provider AOL, Hamman conducts his research through ethnographic means, often including himself as a participant in the research procedure. His ideas have developed through the process of his various projects. Initially, Hamman started off by looking at the construction of on-line identities and how they may differ off-line (*The Role of Fantasy in the Construction of the On-line Other* 1996). However, later on in his extensive study of AOL users, the discrepancies that he found are counteracted by data that suggests there is a closer relationship between on-line and off-line activities (*The Online/Offline Dichotomy* 1998).

*The Role Of fantasy…*is an exploratory essay that introduces the on-line/off-line dichotomy. This piece, however, enforces polarizations using terms such as 'real' (off-line) and 'virtual' (on-line). Hamman argues that due to the narrow bandwidth of the Internet, visual cues that would be available off-line are missing in on-line environments, for example in IRC. Therefore, users can construct identities that are not fitting with their 'real' selves. What this also entails is the 'filling in' that is required on behalf of recipients. With the lack of physical cues, the recipient is required to use their imagination to construct the "online other". Two main points are raised: 1) there are dis-connections and inconsistencies between our on-line and off-line identities and 2) users not only construct their identities over this medium but they are *reconstructed* through fantasy and imagination. On the whole, this conclusion is not valid since Hamman does not support this with adequate empirical findings. Although he recognizes the shortcomings of producing valuable data, this is a stepping stone into later research.

Hamman revises his use of certain terms, recognizing how they can misrepresent the way that humans use the internet. In The *Online/Offline Dichotomy…*, Hamman investigates whether social seclusion and loneliness can lead to the use of the Internet and whether being on-line can lead to further isolation. Adopting ethnographic methods, Hamman's site of research is AOL. His main form of collecting data is through quota sampling, informal interviews in IRC, and e-mail questionnaires. From his empirical evidence, it would seem that individuals who use the Internet, do so for diverse reasons. Secondly, Internet users are not socially isolated or lonely individuals, and thirdly, on-line activities can actually serve to maintain previously existing communities, enhancing many professional and personal relationships. These findings show that "the users of AOL who take part in this study are not motivated by disconnection from their offline communities and social networks, but by the need to locate information and to communicate with members of their pre-existing social circles", (Hamman, 1998: www.cybersoc.com/mphil.html.)

Hamman conducts his research with three questions in mind: whether there is a causal relationship between social isolation/loneliness and Internet use, what the motivations are for going on-line in the first place, and what the effects of on-line activities may be on off-line relationships and communities. He identifies three types of on-line community as:- 1) members on-line who have no face to face interaction, 2) members who already have previous off-line interaction and 3) a mixture of both of these. His findings suggest that the second type is more prominent. Hamman's study highlights some significant points. It would seem that most people who use the Internet whether for professional or academic purposes, use this medium to stay in contact with family and friends with whom they already have pre-existing relations. E-mail and 'chat' are the pre-dominant environments used, followed closely by the WWW. Once again, e-mail is used to keep in touch with off-line associates. People access the Internet when working from home and most of the individuals who stay in contact through this means, live in close proximity. Generally, most of these relationships are formed through shared experiences and similar interests. Thus they constitute what Hamman refers to as 'private network communities'. The subjects in his research tend to have several private network communities, some of which intersect and collide with others.

The findings in my own study both affirm and contradict those presented by Hamman. With all four subjects, e-mail and 'chat' feature amongst their dominant practices. Whilst Hamman's subjects tend to share similar Internet practices, the

four subjects in this study utilize the Internet in diverse ways. Since Hamman's research is based on a particular location (AOL) and was conducted through a very specific environment (IRC) it is not so surprising that his findings are to some extent quite generalized.

Women and technology

Since Haraway's influential essay, feminist discourse has been consumed with the relationship between women and technology. Whilst some of it focuses on the gendered use of ICTs, the bulk of the literature centres primarily on 'cyberspace' and the construction of gender identity through conventional binary systems. Firstly, studies and research on the ways in which women use technology is limited. ICT use is rarely contextualized by the everyday lifestyles. The impact it may have on identity construction is not examined thoroughly when relating this to women. Secondly, most of the information available concentrates on gender distinctions in 'cyberspace'. Such differences have been the topic for many discussions on communicative variances between men and women on the Internet. At times, the discussions appear to be extreme, often representing polar viewpoints. There are those that portray negative scenarios of the Internet/female relationship (*Gender Differences In CMC* 2000– Susan Herring) and those that herald the "future being female" (*The Digital Lifestyle For Women* 2000 – Dale Spender). Thirdly, most of the work focuses almost entirely on on-line cultures, hardly ever contextualized by other aspects of women's lives such as their non-internet activities, relationships, interests etc. The ensuing review reflects some of these limitations.

Technology is a social tool that becomes meaningful in its use. Constructed socially, economically and politically, technology is also relational to factors of class, ethnicity and gender. These factors, in particular gender, shape the technological outcome of a product (*The Circuit Of Technology: gender, Identity And Power* – Cynthia Cockburn). Studies so far have shown a stark divide between the way that men and women use technologies. Leslie Haddon discusses the gendered use of the home computer (by adolescents) in the context of family life and domestic space (*Explaining ICT consumption: The Case of the Home Computer* 1992). The outcome of the research shows that there are wide differences in ICT consumption between males and females. Although girls are cited to be interested in computers at the same level as boys, the experience of this type of consumption is recognized as being different. Video games are not integral to girls 'talk' in the playground whilst it is the case for boys. Computer consumption for girls is more likely to be confined to private and domestic spaces such as the family home, whereas for boys, it extends outwards into external spaces such as public arcades. Finally, unlike for boys, use of the home computer is not an isolated activity for girls but a shared group experience usually with other family members.

> Few girls visited or played games in the various public sites which were geared towards microcomputers – and when they did, attendance was not so much with peers as with family. For instance, one girl described how she regularly played in the arcades with her brothers when the family spent the weekend holidays in Kent. This resembles the pattern whereby the few wives who ever came to computer clubs had done so with husbands as part of 'family leisure', (Haddon, 1992: 91).

Although Turkle's work in *The Second Self…* is acknowledged, Haddon claims that her analysis of computer use lacks context and is therefore 'incomplete'. Despite this, in both studies, ICTs are gendered very specifically into rigid masculine/feminine structures. The public/private metaphor relates explicitly to male/female use. Boys utilize the 'public' arena whereas girls make use of more secure and personal areas to support their consumption. It must be noted that the findings in Haddon's study are restricted to video gaming and no other computer environment. It would be interesting to compare and contrast these findings by researching on different areas of computer consumption other than video games especially in connection with the use of the Internet. Although the author desires to contextualize this type of ICT use through family living, there are no clear explanations on how this can affect identity construction by males and females. The focus on girls is also quite lacking in the sense that there is more of an interest in the consumption by boys due to their extensive use. In my own research, the subjects tended to be quite diverse in terms of their Internet practices. All of the female participants have used the Internet in both public and private places.

The Internet is an interesting area for observing gender differences. Most examinations are preoccupied with issues of inequality, lack of access for

women and the ways in which gender identity still prevails over a medium that lacks physical presence. Susan Herring has explored gender differences in computer-mediated communication to a large degree. She is concerned with gender stereotypes and categorizations on-line (*Posting In A Different Voice: Gender And Ethics In Computer-mediated Communication* 1999). In a recent article,Herring looks at the way that men and women communicate in asynchronous and synchronous interaction (*Gender Differences in CMC: Findings and Implications* 2000). Even though the research she presents points to differences between the interaction in the two environments, the similarities of communicating in synchronous and asynchronous environments far outweigh the differences. Moreover, there are vast discrepancies between male and female communication in both.

In asynchronous environments such as Usenets and message boards, there appear to be differences in the way that men and women interact. In this type of environment, users often write their perspectives and views on a specific topic. There is a great deal of anonymity but users can also leave their e-mail addresses for people to contact them. Most of the time, the messages divert from the original topic and lead to simple 'chat' style interactions between users albeit in a public environment. According to Herring, the length, style and tone of a message differs with males and females. Individuals present themselves in ways that are stereotypically 'normal' of their sex by displaying "features of culturally-learned gender styles in their typed messages", (Herring, 2000: www.cpsr.org/publications/newsletters/issues/2000/winter2000/index.html) This can enable one to predict certain on-line behaviours by either sex. Men appear to be more aggressive in their style whereas women are inclined to be more polite. Herring claims that since there are greater numbers of male users in these spaces compared to women, this type of environment can be hostile to the latter. Such differences favour women less because 'aggression tends to win out over less aggressive behaviours'. This apparently drives women away and thus they are once more silenced. Although synchronous communication such as IRC differs in many respects to asynchronous communication, differences between male and female interaction continue to persist.

In Herrings review it seems that men are more likely to interact in public spaces whereas women are confined to and feel more comfortable in private interaction. Public areas in 'cyberspace' include environments such as open forums and IRC. In some, individuals are required to register into a site, providing personal information about themselves and in others all that is needed is an unused log-in name and password to enter into the discussion. An example of private interaction would include e-mail communication. In Herring's view, this is more suited to women because of the lack of intimidation, greater security and decreased aggression. The result from such analysis simply confirms the categorizations between men and women – once again reaffirming public/private metaphors.

Many aspects of this type of research can be questioned. By focusing on such wide differences, Herring concludes that 'private' locations are the safe haven

for women. This corner of 'cyberspace' can provide the security that is missing from public forums. Unfortunately, it serves to reinforce gender distinctions. Firstly, only public spaces are the main settings of the research. The ways in which men and women interact through a private setting could provide differing data. Secondly, the diversity of men and women is completely overlooked. The intersection of age and ethnicity as significant factors are not even considered when investigating how men and women interact over this medium. Thirdly, other reasons for why women may stop using a certain environment are also not considered such as asking who they might be, where they access their on-line activities, the frequency, how they may move from one environment to another and so on. Thus Herring's discussion is simply based on on-line analysis without any other contextual information. There is clearly a sense of inequality in Internet use, however, Herring does not attempt to address how this may be challenged. Although Virginia Eubanks' perspective is similar to that of Herring, she looks at the significance of 'access' (*Paradigms And Perversions: A Woman's Place In Cyberspace* 2000). The way forward according to Eubanks, is to increase women's access to the Internet as a means for deconstructing some of these metaphors.

As well as increased access, the ability to produce and participate in some Internet environments could contribute to a more positive relationship between women and technology. Krista Scott disputes the idea put forward by Herring, that public on-line environments are negative for women (*Girls Need Modems! Cyberculture and Ezines* 1998). Certain spaces can be positive for women to forge a new identity politics. Scott draws an analogy between Haraway's vision of the cyborg – as hybrid and contradictory, and feminist ezines (electronic magazines) that encourage a pluralistic sense of self. This can promote the formation of a diverse and multiple identity politics. Scott examines two distinctive ezines. She points to how they favour women in the way that they can manipulate this technology to suit their needs.

> Ezines provide a way to explore female-created cyber-culture and its sometimes conflicting philosophies directives, and sense of community. As well, they mediate the spaces between private and public, articulating the contradictions of making a personal stamp on a public forum, and making visible the arbitrariness and obsolescence of such divisions, (Scott, 1998: www.krista.tico.com/mrp.html.)

In a sense, this type of mediation can also deconstruct metaphors of public and private. These women-only spaces are themselves diverse and can thus encourage the development of dynamic identities. Scott, however, is only concerned with one facet of on-line culture in that her site of study is based on analysing two electronic magazines. How this relates to female users of the Internet is an interesting area for further study, something which is lacking in this type of research. Another issue that can be questioned is the idea that women-only spaces are more positive for female users. Lisa J. King (*Gender Issues In Online Communities* 2000) examines mixed and women-only on-line communities. Mixed (public) communities can be beneficial to women but only

if there are more technical roles for women as facilitators and moderators. King suggests that women should first attempt to utilise private spaces and women-only areas and then move on to public and mixed gender spaces. In my own research, there are some contradicting results. Contrary to the above, one subject has moved from public spaces (IRC) to private ones (e-mail). Another subject participates in mixed forums and is quite content to do so. Hence, the public/private dichotomy is already being deconstructed.

3. Research Methods

The research presented in this thesis is based upon ethnographic methods of accumulating data. Ethnography has been associated with anthropology, a means of gathering data on unfamiliar settings and cultures. Most researchers who adopt this method tend to include themselves in the research process as participants and collect their findings through "highly detailed observation", (Brown & Dowling, 1998: 43). Ethnography is not only confined to studies in anthropology:

> Ultimately we can look to our own lives and the contexts within which we operate as settings for ethnographic research. Rather than entering an unfamiliar setting as an outsider and attempting to make sense of this, we are in the position of already being a participant in a familiar setting.
>
> (Brown & Dowling, 1998: 43).

The inspiration for this study has been drawn from my own Internet use. I am familiar with many aspects of the Internet environments that are utilized by the subjects in this research. Yet since many studies have failed to account for these practices through the perspective of users, it remains an interesting area to explore.

Certain epochs and developments have marked the history of ethnography. N. K Denzin broadly defines ethnography in the contexts of realism, modernism and postmodernism, (*Interpretive Ethnography: Ethnographic Practices for the 21st Century* 1997). Ethnographies have shifted from realist objective explanations to more interpretive and pluralistic accounts. In postmodern ethnographies, the researcher's role and means of collecting the data and interpretation affect the overall findings. Some of the methods connected to ethnography include questionnaires, interviews and participant observation. Like any other form of research, ethnography has both positive and negative implications. John Brewer notes how this particular method has been criticized as being full of descriptions of all that is 'foreign and exotic' and as lacking any analytical perspective, (*Ethnographic Research* 2000). Subjective ethnography is also recognised as harbouring biases. From a more positive view, in subjective ethnography findings are contexualized within the participant's everyday lives. This coincides quite well with the data presented in this study. SamplingI started off by planning to investigate the ways in which women of South –Asian origin use the Internet and the impact it may have on their identities. However, the term 'South Asian' is extremely broad, encompassing diverse cultures and backgrounds. It would have been far more appropriate to narrow the criteria into a specific linguistic grouping. For this reason I chose to explore practices by women whose mother tongue can be described as Punjabi. Punjab is a northern state of India, however, this is not to say that the women actually live there. Secondly, the subjects are either recent graduates or undergraduates. This was not a formal criterion. Since most university students have internet access, it contributed to making the sampling procedure a little easier. Thirdly, the subjects are young women in their early twenties and although this was not a pre-requisite, all the participants reside in London. Initially, I proceeded by contacting a young

Punjabi lady who I had met on a few occasions through some university events. The rest of the sample was generated through her. As the subjects move in similar social circles, they are alike in other ways too. In gathering my sample, it became apparent that they were all baptized Sikhs. In total there are four subjects in this research. Despite it being a very limited sample, there are also various differences between the subjects, and the results produced reflect this. Below is a brief introduction on each of the subjects. All names have been changed Rupa was born and bred in a large Punjabi town. Her father had obtained British citizenship in his youth but the whole family only settled in England seven years ago. Upon entering England, Rupa learned English and obtained valuable qualifications. At present, she works in the head offices of a large bank. To supplement her income, she also works part-time in a health and beauty store. Shetal and Harleen were both born in England. Religion and the Punjabi culture have been major influences in both their lives. Shetal has graduated from a London university and is presently working as a departmental secretary at another institution. She lives at home with her parents, one elder brother and a younger sister. Harleen has just entered the finals of her degree in Optometry. She lives away from her family home. Lastly, Kamal has been residing in England for the past three years. Although her parents originate from Punjab, they have lived in Kenya most of their lives. Kamal was raised in Kenya. She lives with her family in London and is currently studying Medical Engineering. All four subjects were introduced to the internet whilst at university in the last two to three years.

Research procedure

The data in this study was collected through interviewing each of the subjects either at their homes or work place. This was followed by a small and informal interview via e-mail communication. Prior to these, I conducted two pilot interviews. These contributed in highlighting some of the difficulties that one can expect through this technique of collecting data. At times, I found it was difficult to steer the conversation into a particular direction. The interviews were relatively unstructured and took place in quiet and relaxed environments.There are many drawbacks to an e-mail interview such as delayed replies, however, as the first interviews had already taken place, the responses were quick and helpful. General topics in the interviews included Internet use,histories, relationships, beliefs, careers and so on.

Qualitative research

The findings have been presented as individual narratives. Due to the unstructured nature of the interviews, the subjects dominated most of the conversations. However, in writing the narratives, a sense of structure was required. There are clearly some limitations in this. Reality is interpreted and re-constructed through researcher involvement, (*A Guide to Researching Selves and Others* 1999). There are also advantages. Qualitative research contextualizes findings within a broader frame of mind helping to produce a diverse and interpretative ethnography.

4. Data

Rupa

Rupa leads an active and busy lifestyle. She is currently rehearsing for a theatre production that has been organized by members of the religious community where she lives. Rupa attends her local temple (Gurudwara) regularly as well as many students related events that are orientated towards Sikhism. Although Rupa has graduated from university, these type of gatherings have enabled her to form some important friendships and become part of a community – something which she has looked to since her arrival in England almost seven years ago.

All of Rupa's relations in India were structured around local affiliation and neighbourhood ties where contact took place 'in person' i.e. face to face. Even though these relationships were based on shared experiences of language, culture and religion, they were largely constructed through close proximal links. In England, however, Rupa's faith has become an integral and significant part of her identity and self-formation. The majority of her social activities and relationships have been centered on spiritual beliefs and religious practices. This has been largely due to the fact that Rupa found it difficult to form relationships when she first arrived in England, particularly with individuals with whom she shared few interests. In order to alleviate this, Rupa re-launched a Sikh Society at her university to meet more like-minded individuals and became actively involved in her local temple. Rupa was introduced to the Internet in the second year of her studies just as she established the society. She lived at home with her family and brought a mobile phone for convenience while commuting.

Rupa's main motivation for going on-line in the first place was to form new friendships with individuals with whom she had no previous connections. Whilst making friends in England through religious events that were based around her student life and local community, the Internet provided a 'parallel' dimension to forge alliances with individuals who were back 'home' (albeit with those who she had never had 'in person' contact). Rupa has used the Internet for the sole purpose of interacting with other individuals. Over-time her Internet practices have changed. Initially Rupa accessed the Internet through university. She began to make friends in an Indian 'chat-room' using the pseudonym "Sunshine" as reflective of a happy and high-spirited disposition. But during her final year, she accessed the Internet through her home line and began to move into the more private e-mail environment. Once she graduated, e-mail interaction decreased and she now communicates with her "Internet friends" through 'instant messaging' – a 'chat' service that allows individuals to contact each other privately whenever they are on-line.

The Internet appears to have become an 'alternative' channel for Rupa's communication. Firstly, Rupa seems to have established two separate networks. One network is based on religious interests and is constituted via verbal and physical interaction (off-line) and the other network is based on national and cultural similarities and is set up through textual interaction (on-line). Secondly, her on-line and off-line networks do not collide or intersect in

any way. Rupa's communication with individuals who she has met through religious gatherings does not extend to e-mail or 'chat' correspondence. Likewise, her interactions with friends made on-line do not extend to 'in person' or phone communication. In this sense, Rupa has established an on-line/off-line dichotomy (contrary to Hamman's findings) through different channels of communication. Further, her off-line and on-line worlds are 'partitioned' to a large extent where her on-line and off-line practices are not 'integrated' but are separated through spatial differences.

All of Rupa's on-line relations are geographically distant from her. Most of these individuals reside in Canada, USA and India – the latter being more prominent. Her on-line friends are also far more fragmented. Although the majority of her on-line friends live in India, they reside in different regions and states of the country. Rupa has never introduced her on-line relations to each other. They are not only dispersed and segregated in terms of spatiality but are kept apart by Rupa herself. In contrast, her off-line friends live in close proximity, most in her hometown and within the same range of each other. They have formed a close group within which all individuals know and have some form of interaction with each other. These interactions take place through social events and activities. Rupa's on-line interactions are more interpersonal. Missing body expressions and gestures over the Internet has created a stern barrier between Rupa and her on-line associates. Rupa sees her off-line friends regularly during the week and any other communication is via phone conversations. Because of the distance between herself and her on-line friends through geography and lack of inpersonal cues, Rupa feels that she needs to express herself well. This often requires detailing small aspects of her life. E-mail has suited this purpose well by providing her with a platform to narrate parts of her life to an audience that is not so familiar with her everyday living.

For this reason Rupa prefers to make new friendships with people who live abroad rather than communicating with individuals who live in the UK. She feels that meeting new people, who live closer to home through this medium, would not be as stimulating because of over-familiarity with each other's lifestyles.

> I'm interested in people who are not in the UK…….our lives are so similar and so we don't have much to talk about whereas if I'm here and someone's in Canada, we've got a whole lot to talk about, you know everything that we've got about our countries, about culture here, our lives…….cause some guy I met said, "I live in Illford…in Illford Lane". I'm like "oh er..that's interesting but what do we talk about….." …..It just stops there. Because we know almost what goes on around us and our..our area and so I think it has to be a different lifestyle. (Rupa).

Here Rupa clearly makes a distinction between geographically distant and close proximal interactions on-line. Those who live near whether in the same town or country are likely to share similar experiences to her. They will have knowledge of her lifestyle, the environment, climate, etc and visa versa. Her distant friends, however, will have little knowledge of the kind of life she leads

and are unlikely to be familiar with her university, hometown, and so on. Because of this unfamiliarity, she can then conduct lengthy discussions with people who are more interested in her day to day living. On the other hand, the individuals that she does interact with on-line are not completely unfamiliar. In contradiction, whether Rupa is communicating with friends in India or USA, she shares with them similar bonds and interests through national, religious or cultural affiliation. Lastly, by distinguishing between individuals through space and distance, Rupa's Internet practices reiterate the on-line/off-line classification. Her Internet practices are reserved for those who live further (unfamiliar) whereas her off-line practices include those who live closer (familiar).

To her on-line friends, Rupa can provide an autobiographical account of her life. The one individual who she has met resides in the UK. However, the main difference is that he is also from India. Both being relatively new, they could share stories of experiences and discuss topics of cultural (Punjabi) and national (India) interest. Since meeting off-line, their interactions over the Internet have decreased rapidly, instead moving to more conventional channels of communication such as telephone. Now that they have met, Rupa's autobiography is no longer likely to be of as much interest. To those who she has still not met, it is of vital importance.

> I tell them about myself, tell them like little things, what I did yesterday, what I'm doing today. Just to give them a little idea of what my lifestyle is, how I live my life….because people here know what I do because maybe they see me or maybe I can tell them on the phone…people who I don't meet – they don't know what I get up to everyday…(Rupa).

Off-line, Rupa's friends are likely to be people who she sees regularly and will have some greater knowledge and familiarity of her lifestyle because of this. She can either tell them by other means or they can see for themselves. But for those who are distant, it is not as familiar. They are more likely to be an attentive audience performing the part of spectators as her story unfolds. She must provide the small details that are missing due to lack of physical cues. It is therefore of little surprise that Rupa also stays in contact with old friends in India through the more conventional means of letter writing. Although, this is the most likely mode because many areas of India will not have Internet access, it is another way for her to narrate her story to an audience that is geographically distant. Rupa's on-line practices serve to construct a personal identity whereas her off-line practices are affiliated with the specific aspect of her religious identity.

Rupa's on-line and off-line worlds are further polarized on the basis of gender classification. Nearly all of Rupa's on-line friends are male. In contrast, her off-line friends are exclusively female. Although she has many male acquaintances that she has met through religious gatherings, her close circle of friends consists entirely of young women. Rupa makes a distinction between males and females on-line through the way that they react and the nature of their conversations. She prefers interacting with men for the reason that conversations with women can become "too boring and formal".

The only female who Rupa has communicated with over the Internet is a young woman whom she met in a ‘chat-room’. This however, has not infiltrated into

e-mail interaction. Since the girl is quite a bit younger, Rupa feels that they have more to discuss. She doesn’t enjoy corresponding with other women in this way because she believes that the discussions are likely to be unfruitful and less intense.

> With girls it’s the same thing. The chat just dies down…unless you are good friends and you want to talk about things…”Oh, I did this thing you know what…” Unless you’re really good friends you can’t get into a deep discussion……I can’t meet a girl who is the same age as me because it’ll be like, “oh this is where I work, this is what I did and…”And after that it’ll be like, “oh okay, now what?” (Rupa).

Although Rupa is not explicit, she appears to be distinguishing between her interaction with men and women on-line through aspects of ‘familiarity’ and ‘unfamiliarity’. For a start, there is more to discuss with men compared with women. The conversations with females will not last long but with males there is the potential for further development. With females, there is a sense of over-familiarization but with males a sense of unfamiliarity. Thus with the latter there is more to discover and this can then escalate into more meaningful discussions. The exception to the rule is the interactions with the young girl. Because of the large age gap and differences in levels of education and so on, Rupa feels that they have more to discuss. Their conversations have been based around the young woman’s school life and Rupa’s university time – aspects of each other’s lives that they are slightly unfamiliar with. Meeting another female whom is the same age and from a similar background could result in the discussion fading out. But meeting a male with the same characteristics does not appear to have the same effect. By establishing gender differences, Rupa’s relations are clearly differentiated through gender and different channels of communication. This is further complicated with cultural and religious differences on-line.

Although Rupa’s on-line friends are dispersed and fragmented, many of them share either cultural, linguistic or religious similarities. Yet they are far more diverse than her choice of off-line friends. Off-line, Rupa’s friends are all Punjabi speaking Sikhs. On-line, there is more of a variation between individuals. She communicates with people who may be of Indian descent but come from different religious and linguistic backgrounds.

In the first two years of her university life, Rupa’s friends were females who like her came from abroad in recent years. They were not Indian but from various parts of Europe. The fact that they were older than most of the other undergraduates and that they were in a sense foreigners, helped them forge a tight bond. Towards the end, however, by setting up a society, Rupa was able to find a channel through which she could meet people who were closer to her religious and cultural interests, a far more homogenizing process. Most of the people that she developed her friendships with were Punjabi speaking

females who were baptized Sikhs. At the same time, she was meeting people on-line that could speak the languages that she was fluent in. Her associates in India speak Punjabi, Hindi or English. With individuals in Canada or USA, there are further variations especially due to Western influences. The diversity in Rupa's relationships on-line has required her to adopt a diverse approach to her own interactions.

> If one of my friends is Sikh, I will talk about religion, I want to know, I want to discuss things. If a friend is Hindu, that topic is out of the way and I can't talk about Sikhi to this person… (Rupa).

Rupa clearly seems to interact with her on-line friends in different ways. She needs to select her topic of discussion carefully and this means that she presents differing aspects of herself depending on whom she is corresponding with. There is disassociation with her on-line friends who do not interrelate with each other but are separated through distinctions that Rupa makes on the basis of religion and language. In this sense she does not present herself as whole but various facets of herself.
Rupa's general approach to the internet has been about building distances. Her on-line and off-line lives are divided through spatial and gender differences between her on-line and off-line associates, and further between her detached and isolated on-line friends. She can switch between the two worlds at her own will – the everyday (off-line) world and the 'alternative' (on-line) one. This is not to say that she has two stark identities but rather she utilizes different aspects of her identity depending on the preferred channel of communication.

Shetal

Shetal leads an incredibly hectic lifestyle. It has been this way since she was a child. Apart from her full-time work, she is also studying classical music in her spare time. She attends religious events regularly and is actively involved in her local temple as well as travelling around the country to participate in different congregations.

Contrary to Rupa's use of the Internet, Shetal's off-line and on-line worlds are consistent. Instead of creating distances, her approach appears to be far more inclusive and 'integrated'. However, Shetal's Internet practices are only confined to a very specific space in her life – spirituality and religion. Many other areas such as her work life and hobbies that include aromatherapy and films are not related to religion and in no way collide with Shetal's use of the Internet. Her Internet practices exclusively prioritize the religious aspect of her lifestyle.

Shetal uses e-mail and a web site to disseminate information to individuals who are part of her religious community – although the former dominates to a large extent. Shetal rarely uses the WWW. In the past year this has increased slightly but it still remains in the background. Whether she uses e-mail or the WWW, her off-line and on-line practices converge. Shetal's off-line religious activities and Internet practices are 'integrated' in many ways. Recently she

has started to *surf* the web to research topics that are of personal interest to her and are based solely on her faith. She has never been keen on researching through books and literature. Her main source of information throughout her childhood and adolescence has been generated through people. Sometimes she uses the web to support her personal study. Shetal is currently learning Indian Classical Music so that she can play more instruments at congregation. She has been able to locate information that she can relate to her own assignments by probing through various search engines. Lastly, Shetal is also involved with a Sikh web site targeted towards young children. Although she has no part in the design or up-keep of the site, her role as "events manager" is to provide information on forthcoming events, trips and excursions.

Religion has always been the main focus in the lives of Shetal and her family. The Internet has now been utilized to fit this significant area in her life. Shetal was baptized alongside her brother and younger sister, as she was about to enter her teens. Spiritual influences from older family members and relatives became the central motivation behind it. Shetal is a confident and extremely social individual. Throughout her life she has met a large number of people who share similar experiences. Shetal actively participates in organizing events that involve family and friends. She often has to invite guests, book venues, organize dates and produce schedules for participants. Shetal uses both phone and e-mail to do this, however, the latter appears to have proven more useful due to cheaper and faster means of reaching people whom are fragmented. The content of her e-mail consists of invitations; short notes and bulletin board style messages so that people are well informed. Before the Internet, Shetal would normally have reached members of this community through traditional methods of letters, leaflets and posters disseminated via communal spaces such as temples. Both e-mail and the web site are now serving a similar purpose. The Sikh site is constructed through articles, poetry and essays that are written by Sikh youth.

> …it was just a way that we could always be talking to them and otherwise it's like, cause we don't……we do hang out with kids but not very much and it's difficult to see and to get a vast range of kids and get so many as well. That's just the best way of doing it. It's better than putting up a poster or hundreds of posters…it's stuff they want to see anyway so that was a brilliant way of attracting them…(Shetal).

Due to the accelerating pace of Internet information flow, 'integration' of on-lineand off-line practices can be achieved at a faster rate. Information that would normally be available to children through books, older family members and temples can now be accessed in another form of public environment. The web site has been used to convey and pass information between different generations of the Sikh community – something those physical places of worship would traditionally serve to do. Although traditional spaces and forms of advertising have not been completely discarded and disposed of, advertising has simply moved from one channel of communication to another – with neither taking overt precedence. Hence, many off-line spaces such as

temples, societies and Sikh camps that are orientated towards religion and are an integral part of Shetal's life have moved into different environments without being abolished altogether. The Internet has served as an appendage rather than a permanent alternative solution. On-line interactions have become supplementary to off-line practices and important in strengthening Shetal's community.

E-mail has become an essential tool in conjunction with Shetal's off-line activities. Two main features emerge. Firstly, by effectively 'integrating' off-line and on-line practices, she is bringing these the two spheres into synthesis. Secondly, in doing so, Shetal appears to be constructing a large 'integrated' network of individuals who share similar interests and experiences, most of whom are connected to each other in some way or another and have previous ties.

Shetal sends out and receives e-mail on a regular basis between herself, friends, relatives and many other links that are part of her religious community. E-mail has become an important way for her to stay in touch with associates and to organize events. Shetal has two e-mail accounts, one at home and another free account where she works. However, she rarely uses e-mail at work and whenever she does it is for the purpose of contacting past or present colleagues. Her main e-mail communication is accessed from her home account. As an undergraduate Shetal had an account that was provided by the university and another at home where she lives with her family. Yet she used neither, preferring to maintain communication with relations via phone contact. She had her own phone during her years as an undergraduate and even though her e-mail use has increased rapidly, phone contact remains consistent. In other words, Shetal uses both to reach the same people. Although, all of her on-line ties are an extension of her off-line relationships, it is inevitable that Shetal may at times meet people at congregations with whom she has no previous connections. Because of the public nature of the web site environment that she advertises on, she has little control over who can or cannot see the notices. Unlike in Rupa's case this is not a deliberate procedure of 'partitioning' her on-line and off-line networks but instead a way to bring them closer together.

It seems that Shetal is constructing a 'private network community', the kind of community that Hamman discusses in his research. This type of network is not just confined to neighbourhood ties where relationships are based on close proximity but instead they are rooted in similar interests, hobbies and beliefs. Hamman arrives to this conclusion after examining internet use by AOL service users. Shetal's use of the Internet shows a similar pattern. Religious and spiritual interests form her private network community where she is the inter-linking source. In Hamman's research the most prominent form of networks sited on the Internet is one where the subjects already have off-line ties, particularly with people who live nearby. Shetal's network, however, consists of individuals who live both geographically distant and in close proximity.

The majority of Shetal's friends are young Punjabi speaking Sikh men and women who are in their early twenties. She has met them through gatherings

at her local temple and student societies amongst many other events. Although she has a close circle of friends living near her, she has various relations who are dispersed and live in other parts of England. A large number of these individuals also know each other because of their common religious interests and some have been introduced to each other through Shetal. The two main ways that Shetal stays in contact with friends and relations who are in close proximity and geographically distant are by phone contact and e-mail. In this sense her relations are 'non-differentiated'. Shetal communicates with the same people in similar ways. She often uses both to send out short messages, make plans and to organize social gatherings. E-mail appears to be the most convenient and efficient way of communicating due to quicker speed and the ability to reach large numbers of people swiftly. She regularly uses mailing lists and address books to aid this practice. Shetal's use of e-mail for this purpose has become a complimentary and supportive means to phone communication.

….cause you write a letter just once and send it to about a thousand people and I have a few address books set up. So I just do a mailing list of about a hundred people at a time or whatever and it's very very handy…my friends live in London, Birmingham and a few odd ones scattered around… (Shetal).

For Shetal, e-mail is the desired mode of passing on information to a large group of individuals who may or may have not met but are all linked to her. Her mailing list is likely to include people who all have something in common and can therefore relate to the message being sent out. Her friends who are dispersed and far can share the same information without any physical or geographic barriers. In this sense, unlike Rupa's spatial, channel and gender classifications,

Shetal bridges the distance between relations who are close to her and those who may be far. Her friends may be 'scattered' around but instead of being separated even further, they are brought closer.

Shetal's Internet practices have enabled her to reinforce her ties with relations who are fragmented. These ties have been based on her faith. It is now easier for her to encompass a large number of people collectively and has become a vital strategy in strengthening her religious community.

Harleen

Harleen's parents originate from Punjab, India. Even though she was born in England, Harleen grew up speaking Punjabi in their home. She learned how to read and write the language before entering her teens, mainly through classes held at the local temple. This was so that she could garner a better understanding of Punjabi culturing that included literature and music. During adolescence she became very interested in Sikh history most of which was written in Punjabi. Thus language has been an important feature in her life. Harleen was baptized when she was sixteen. In order to read Holy Scriptures, she also needed to have a good grasp of Punjabi so that she could recite more difficult verses that were compiled in Gurmukhi. It seems that the prominence of religion and culture in Harleen's life has transcended from off-line areas onto on-line environments.

Akin to Shetal, Harleen's Internet practices fit into one very particular space in her life. Despite this, Harleen manages to utilize more than one environment. Whereas nearly all of Shetal's on-line practices are deeply entrenched in the e-mail environment only, Harleen makes adequate use of the WWW, e-mailand 'chat' environments for similar purposes. Her styles of Internet practice are not so dissimilar to Rupa's. They both enjoy the interactive aspects of the *net* and the ability to communicate with people who are geographically distant. However, there are also important differences. Harleen combines religion and culture and proceeds to use the above on-line environments in conjunction with this aspect of her life. Although her original intentions for using the Internet were for the purposes of education, the religious and cultural facets of her identity consume her present practices.

Harleen's entrance into university was the main way that she was introduced to the Internet. Yet, rather than using the Internet to communicate with her family through e-mail, she used the WWW to locate electronic journals and articles that were relevant to her studies. At present Harleen sometimes uses e-mail to stay in touch with friends although this is not very often. About twice a month she communicates with individuals who are residing in India through synchronous 'chat'. However, in contrast to Rupa's practice, Harleen's interactions in Indian 'chat' environments have not spilled over into more private ones such as e-mail. Her central Internet practices, however, are located in asynchronous communication through a Punjabi web site. Harleen participates in an open discussion forum by posting on message boards with regard to religious and cultural topics that have some significance to her. The Internet has become an 'alternative' way to express her views and opinions on topics that are integral to her identity formation.

First of all, Harleen appears to have established separate networks based on the on-line/off-line dichotomy. Her on-line and off-line networks do not overlap and are 'partitioned' by different channels of communication. Off-line, Harleen's main forms of communication are through 'in person' and phone contact with social relations who live in close proximity. She has her own private phone and often transmits text messages if she needs to send a short note. Friends who are geographically distant are also reached using this method. Harleen rarely sends e-mail, at the most about once every fortnight. Communication with her family is by the sole means of phone contact unless she is visiting them in-between academic terms. Harleen's off-line relations are based on clusters of small groups most of whom she has met throughout different stages of her education. They include groups of young Punjabi and non-Punjabi females of Indian descent who live both close to and distant from her. On-line, however, Harleen interacts with people who she has not met 'in person' and with whom she has no previous connections. Some of these individuals live in close proximity – either in the same city or other parts of England whilst others may live as far as India. In contrast to Rupa whose networks are 'partitioned' to a large degree, many of

Harleen's on-line associates also interact with each other in this way too. Like her off-line friends, Harleen's on-line relations are mostly young Indian

females both Punjabi and non-Punjabi. Harleen's interactions are not as 'integrated' as Shetal's network but then not quite as disassociated as Rupa's.

The different channels of communication permit Harleen to interact with individuals in distinct ways. Even though her on-line and off-line networks appear to be symmetrical, her relations are differentiated through the on-line/off-line dichotomy. Harleen enjoys discussing cultural and religious topics. Before being introduced to the Internet, Harleen experienced debating in another medium. She participated in live talk shows over an Asian radio. However, this only occurred on a few occasions. Since her initiation with the Internet and public message boards, Harleen's desired form of debating has taken place in an asynchronous environment that affords greater flexibility. Although Harleen still uses her name alongside her messages, she has carefully opted for a certain level of anonymity by only disclosing her e-mail ID to a few selected participants. Otherwise, she still remains relatively anonymous. This means that she can communicate on-line in ways that she would not normally do so.

> …I wouldn't want to be seen saying something that people don't agree with cause it's difficult to come out with whereas if on the Internet, you might be one of a million saying what you're saying……if it's on the Internet, nobody can see you. I think people are more confident to take part……if they're confident on the Internet, they start to become more confident via e-mail and then by phone…(Harleen).

It seems that this level of anonymity is positive in the way that it has the potential to foster 'political' change. Firstly, anonymity can encourage individuals to 'take part' without inhibition and restrictions on their gender or cultural and religious backgrounds. This encourages the diversity of perspectives and opinions and is particularly applicable to individuals like Harleen who may be uncomfortable in off-line or physical settings. Secondly, a certain level of anonymity can reduce the impact of backlashes or 'flaming' from individuals who may not agree with a point raised. Thirdly, due to the lack of physical cues over this medium, there is less inhibition. And lastly, on-line interaction of this kind could provide the 'confidence' and stimulus to extend political discussions to off-line settings.In this sense Internet environments such as public forums are not necessarily permanent or fixed solutions. Even though Harleen's on-line and off-line worlds are 'partitioned' in the context of channeling there is the potential to contract on-line and off-line distances as levels of anonymity decrease.

Despite the 'partition' between her channels of communication, Harleen effectively 'integrates' her off-line cultural and religious practices with her on-line interactions. She visits one web site in particular that offers individuals the opportunity to discuss issues that relate to spiritual interpretations, religion and politics, and Punjabi culture. The forum is open to anyone who wishes to join in. Off-line settings that would promote these kinds of discussions include sites of worship and student societies. The public forum has become the on-line equivalent. Harleen is far more comfortable in this setting in comparison to the off-line areas. In this environment, Harleen can make the sort of political

statements that she would not desire to do so in a temple or large gathering where her views would be directly associated with her. It has given her the opportunity to debate on many sociological, political and philosophical topics that in some way or another impinges on her own life.

Harleen regularly posts lengthy messages on an open board. Most of the time she responds to topics that have already been initiated. This has also become an important way for her to communicate with diverse individuals who she would not otherwise interact with.

I think there's a big gap between the gurudwara and young people these days so it's important I think..to get that information flowing between the two cause no other way it's going to be changed otherwise….at the moment it's so segregated, people in the gurudwara and the community outside, there's no mixing really, just go there, listen to what they've got to say….I don't think I'd be really able to find out what people in the gurudwara are thinking because there is no way I would approach one of them… (Harleen).

On-line and off-line spaces are clearly distinguished. She would not be able to raise some of her opinions in an environment such as a temple due to lack of accessibility and inhibition, thus leading to the 'segregation' of various members of the same community. On-line, however, there is an increased sense of co-operation between authority figures and ordinary members. In this case, the public forums have enabled different generations of a community to come together and communicate in ways that they wouldn't normally do in off-line spaces by breaching gaps between elder and younger members. The same information that flows between people closes many boundaries. Another distinction is the way that on-line environments such as this public forum encourages and promotes diversity of both topics argued and the individuals who are discussing them. Despite establishing differences in channels of communications, Harleen's off-line and on-line practices are brought closer together. Even though she has moved from one setting to another, her religious and cultural identity is important in both.

Harleen's Internet practices tend to incorporate various characteristics located in the activities by Rupa and Shetal. However, the main difference is the environment that is being utilized. Despite many assertions that females are most likely to be comfortable in 'private' environments, made by those observing female interaction with the Internet, Harleen's practice points to the opposite. Instead of moving from private spaces to public ones, she is far more comfortable in a mixed sex public arena and is most likely to move from public spaces to private environments.

Kamal

Kamal is a social and active young lady whose diverse interests include outdoor sports, Western popular culture and Indian classical music. Kamal has been connected to the Internet at both university and home for almost a year. Her main Internet practices revolve around her education and the maintenance of existing relations. The majority of these practices are accessed at university.

The Internet has proved to be a resourceful tool for Kamal and is far more fluid and immersed into her everyday life. Her Internet practices are 'partitioned' in the way that they are appropriated into more than one space of her lifestyle. Kamal regularly uses the WWW to locate experiments and articles that can supplement her own studies. Apart from this, she does not *surf* the web for any other purpose unless she desires to find information on classical music. This tends to occur on rare occasions. Kamal also uses e-mail and an 'instant chat' facility to stay in contact with friends who are near her and those who are more dispersed and distant. Since Kamal spends a large amount of her time in the campus library and study rooms, her Internet practices at university have become a resourceful and convenient means to access all these environments simultaneously albeit for distinct purposes.

> ….lots of times when you're just sitting there and I'm thinking, "I don't want to study" I just go on chat and I just know they're all studying and that…I just tell them, "Listen, help!" (Kamal).

Kamal's ICT use is appropriated into two separate areas of her life. Without having to physically travel, she can access many areas over the Internet in particular the academic and social aspects of her everyday living. If she's writing up an experiment on a computer, she can log on to the Internet to search web sites and send e-mail whilst communicating with her friends through synchronous interaction. As she spends a lot of her study time close to computer access whether at university or home, Kamal often utilizes this by switching from the different spaces in her life and various on-line environments quite easily. Her on-line behavior does not follow a strict and rigid pattern. Messages sent via e-mail can vary from long intense monologues to very short notes.

Although on-line services have served to support Kamal's education, e-mail and 'chat' appear to be at the forefront of her Internet practices. Two main points emerge. Firstly, all of Kamal's communication over this medium is with individuals who are connected to her already. Secondly, her e-mail and 'chat' interactions show that she has formed diverse private networks of individuals with whom she has pre-existing ties. In this sense, her on-line behavior follows the pattern that has arisen in Hamman's research. Unlike Shetal, however, Kamal has more than one network. Each network does not intersect but all individuals are still linked to her.

Kamal's social networks include a mixture of individuals who are either geographically distant from her or live in close proximity. The three main methods of interacting with her friends include 'in person' contact with those who live in close proximity, phone contact with individuals who live both near and far, and on-line communication (e-mail and 'instant chat') with all of her friends. The latter contributes to maintaining and strengthening her already established social relations. Since Kamal has spent her whole childhood, adolescence and late teen years in Kenya many of her ties include friendships made there. She phones her Kenyan friends occasionally but hardly sends letters through the traditional

mode, instead preferring the more convenient and efficient means that e-mail provides.

> I've got loads of friends in Kenya and the thing is because we didn't have the Internet before, they used to talk to, they used to keep in touch with each other and I was left out because I couldn't be bothered to write letters and send cards…but now I have e-mail, the e-mail addresses so it makes…well at least we keep in touch now…(Kamal).

E-mail has become the most vital way for Kamal to stay connected to her friends in Kenya. Before the Internet was introduced to her, she felt a sense of disconnection. She didn't know what was happening in the lives of her friends and visa versa. E-mail has been the most significant way to re-connect these relationships again and bring herself and her associates closer together. However, these relationships have moved from off-line environments to ones on-line. It seems to have become a necessary step in sustaining ties that might have otherwise dwindled. Now that she is 're-connected', most of the e-mail content is based upon "gossip" and small bits of information. Real-time interaction has also helped in retaining and strengthening this.

Kamal also uses e-mail and the 'chat' facilities to remain connected with her friends in England. Some of these relations are dispersed in far areas but phone contact and on-line interaction contributes to maintaining the ties. Interestingly, Kamal has merged her off-line communication with on-line interaction by setting up a mobile phone device in her 'chat' environment. This provides her easy access to send messages from an on-line setting to a phone. It is cost effective and convenient.

As a result, Kamal's Internet practices have culminated in the formation of private network communities that are based on a combination of local ties and interests. The Internet has helped in maintaining them. These networks are diverse and varying in terms of spatial distance and interest. Kamal's networks include her relations in Kenya, current university students, past students and members of her religious community. These networks are 'partitioned' to the extent that they do not converge or overlap. However, this does not appear to be a deliberate assertion.

In Kenya, Kamal spoke an array of languages from Punjabi in the home, and English, Swahili and Gurjarati outside. Her diverse groups of male and female friends in Kenya reflect these various languages. In England, Kamal has become part of more groups. Like Rupa, when she first arrived in England it was difficult for her to adjust to a different culture, however, she soon became involved in her local religious gatherings. Now her relations in England also include diverse mixtures of males and females. She has groups of individuals who are similar in many respects and those who are distinct but share the same space i.e. university. These are just a few of many. Notably, Kamal uses similar procedures of communication to contact her friends whether through on-line or off-line channels. Neither of her private groups or individual relations is differentiated through any form of cultural, spatial, gender or channel classification.

Unlike in the other cases, Kamal's Internet practices are dominated by her connection to individuals with whom she has already existing relationships. Since her arrival in England almost three years ago, this has been of important to her. The internet has contributed in building 'new' and supporting 'old' ties.

Summary: *networks*, *practices*, *relations*

The four subjects in this study have established diverse and varying networks.Two of the subjects (R + H) look as though they share similar features, however, they are actually quite distinct. Their Internet practices can be described as follows: Rupa's 'networks' and 'practices' are 'partitioned' and her 'relations' are 'differentiated'. Shetal's 'networks' and 'practices' are 'integrated' and her 'relations' are 'non-differentiated'. Thirdly, Harleen's 'networks' are 'partitioned'; her 'practices' are 'integrated' and 'relations' are 'differentiated'. Lastly, Kamal's 'networks' and 'practices' are 'partitioned' and her 'relations' are 'non-differentiated'.

Thus in this research there are "three" variables: i) **networks** (a chain of interconnected individuals), ii) **practices** (as meaning both off-line and on-line activities in terms of profession, occupation, hobbies, etc.) and iii) **relations** (individuals who are connected to each other through professional and personal ties). These variables are in some cases interrelated but as the data shows they do not necessarily correlate in all. Each of the variables holds "two"values. Networks can be **partitioned** (segregated) or **integrated** (combined), practices can be either partitioned or integrated, and relations be either **differentiated** (developing differences) or **non-differentiated** (keeping similarities). This gives rise to "eight" possible modes of Internet practice:

n(networks) **p**(practices) **r**(relations)

1) **n**=partitioned **p**=partitioned **r**=differentiated*

2) **n**=partitioned **p**=partitioned **r**=non-differentiated*

3) **n**=partitioned **p**=integrated **r**=differentiated*

4) **n**=partitioned **p**=integrated **r**=non-differentiated

5) **n**=integrated **p**=integrated **r**=differentiated

6) **n**=integrated **p**=integrated **r**=non-differentiated*

7) **n**=integrated **p**=partitioned **r**=differentiated

8) **n**=integrated **p**=partitioned **r**=non-differentiated

Out of the eight modes, four have been utilized by the subjects in this research. Rupa's (1) networks and practices are partitioned to the extent that her off-line and on-line relations and interests are segregated through different channels of communication. Further, her relations are differentiated in the way that she develops gender differences and appropriates each gender to a

certain type of channel. In Shetal's case (6), her networks and practices are integrated in the way that religious and spiritual practices are combined with on-line activities. She communicates with the same individuals through similar modes of communication whether on-line or off-line. Harleen's (3) networks are partitioned through the way that her on-line and off-line interactions do not intersect, however, her practices can be described as integrated in the way that she utilizes on-line spaces for interests and practices that have been established off-line. Thirdly, her relations are differentiated through the way that her off-life peers are subordinated to her on-line ties in Internet environments where her preferred mode of communication is based on anonymity. In the case of Kamal (2), her networks and practices are partitioned in the way that her networks are divided into separate disassociating groups and the way in which her Internet practices are diverse and not necessarily in convergence. Her relations, however, are non-differentiated – she communicates with individuals through both channels.

The Internet use by each of the four individuals fits into four different modes of practice producing a 'positive' result. In this sense, there is already the suggestion that despite the limited sample, Internet practices are multiple and diverse. Secondly, only four modes have been utilized, leaving open areas and spaces yet uncovered. These include 4, 5, 7 and 8 and thus paves the way for future exploration into this area. Lastly, many of the above terms that have been used to generate this result are simplified. As the data is already showing, there are further differences and complexities. For example, the extent to which networks/practices are 'partitioned' and relations are 'differentiated', varies between individuals, and depends upon the ways in which they are partitioned or differentiated through factors of gender, channel, distance etc. Finally, there are further differences in the on-line area. Not only are Rupa's on-line and off-line worlds partitioned but her on-line network is also segregated through means of spatial variation and distances created by Rupa herself. Overall, the data shows that there are many forms of Internet practice that in itself forcing a transformation in the way that the Internet is being conceived.

5. Conclusion

Discussion

In this study I have attempted to explore the ways in which young Punjabi women use the Internet within their everyday lives and the relationship that is established between their Internet practices and identities. Despite certain similarities between the four subjects in this research, the data points towards diverse and multiple uses of the Internet. In the following section, I will briefly describe some key findings; identify the ways in which they re-affirm or contradict previous empirical studies; and finally, look at how the data produced in this research corresponds with issues of identity and the self.

Firstly, the findings in this research show that Internet use can change overtime. Initially, all four subjects used the Internet for a specific purpose. After a while their practices began to alter as they started to explore other spaces and Internet environments. Secondly, the four women access the Internet from at least two locations. Rupa and Shetal have Internet connections at home and in the work place whereas Harleen and Kamal can access the Internet from home or university. Normally, one place of access pre-dominates. Thirdly, the 'communicative' factor of this medium is clearly the most appealing feature although it varies between different users. Rupa and Shetal use very specific areas of the Internet such as e-mail (albeit for diverse reasons), whereas Harleen and Kamal tend to make use of more than one on-line environment. On the whole, e-mail and 'chat' appear to be the ruling modes of Internet use.

In all of their practices some form of asynchronous interaction is included. For example, three of the subjects use e-mail quite extensively. Further, Harleen's Internet practices are dominated by interaction through message boards. Asynchronous interaction, in particular e-mail, is employed mainly for social communication. Rupa uses e-mail to communicate with on-line associates – individuals with whom she has no previous ties, whereas Shetal and Kamal use this mode of communication to interact with and maintain off-line relations. With the exception of Shetal, the subjects also make use of synchronous communication for similar purposes in the form of 'chat', either through private environments (Rupa and Kamal) or more public ones such as IRC (Harleen).

Lastly, the extents to which each subject's on-line and off-line practices are integrated or disassociated vary to quite a degree. There is a strong classification between Rupa's on-line and off-line practices. Although Harleen's on-line and off-line networks and relations are also partitioned – they are not as effectively divided. For most of the subjects, the Internet has become a secondary form of communication, however, for Rupa it is the sole and primary means of interacting with individuals who she has not met off-line. Similarly for Kamal, e-mail and 'chat' are the main ways that she stays in contact with relations in Kenya. So the extent to which the Internet is a primary or secondary form of communication also varies with each user. Overall, this study has shown that there is hardly a general or fixed pattern in Internet practice. There are few, if any, explicit relationships or correlation in

this study. Instead the results are far more mixed and differ depending on each individual. Most empirical studies so far have been broadly generalized.

The women in this research are already deconstructing boundaries between public/private metaphors. Previously in Haddon's research, female ICT use was confined to private spaces such as in the home. In this study, however, women access the Internet from both home and more public locations such as the work place and university. Use of the Internet is not a group or shared experience with other family members and friends but an isolated activity. It is worthwhile noting that this is likely to be the case for both men *and* women due to the nature of this type of technology. Similarly, contrary to Herring's assertions, most of the women in this study utilize both public and private Internet environments from IRC to open forums and www to e-mail. Firstly, individuals in the IRC environments and public discussion boards that are frequented by the subjects in this research belong to both sexes. Secondly, in contrast to King's observations, women are actually moving from public to private spaces rather than the other way round. Rupa started off communicating with her on-line associates through IRC but the interactions gradually transcended to the more private means of e-mail. Although Harleen has not made this transition as yet, it is something that she hopes to do in the future. Thus use of the Internet cannot be categorized into rigid public/private dichotomies especially those based on gender.

The four women in this research were introduced to the Internet in similar circumstances. Before entering higher education, none of them had any previous connections to the *net*. Yet their motivations for going on-line were quite distinct. Rupa and Shetal were attracted to the interactive aspect of the Internet and were particularly drawn to e-mail or IRC. In contrast, Harleen and Kamal used the Internet for educational resources, rarely communicating with anyone. Even though this has clearly changed, like in Hamman's findings the motivations for going on-line in the first place tend to be quite diverse. In this study, the motivations are even more varying. The majority of Hamman's subjects began to use the Internet to retain and strengthen links with off-line relations whereas the users in my own study decided to go on-line for a variety of reasons. None of the women are socially isolated and lonely individuals. They all lead busy lives. For most, the Internet has become an extension *of* or entwined *with* their off-line activities. This coincides with Hamman's own findings. However, there are also differences in the two studies.

In contrast to Hamman's results, the Punjabi women have formed slightly more distinctive and diverse types of on-line community. There are 'private network communities' and 'alternative communities'. Hamman defined three types of on-line community in his research. His data showed that most Internet users can be appropriated into the second type of internet community whereby the individual user communicates with relations that already exist in his/her off-line networks. In my research two of the subjects have formed similar networks, namely Shetal and Kamal. On the other hand, Harleen interacts with a mixture of both on-line and off-line associates. Likewise, the networks that Rupa has established on the Internet do not fit into Hamman's

second type of community. Instead, she communicates with individuals who she has met on-line and hardly extends to her off-line networks. In this sense, Internet communities and networks cannot be so generally and broadly defined as they are in Hamman's research.

With the exception of Kamal, the participants in this research construct 'private network communities' that differ in many respects to those formed by Hamman's subjects. Rupa and Harleen have established two separate networks that do not intersect or collide. And in contrast to Kamal's multiple, disconnected social groups, Shetal has created a large integrated network – where all individuals tend to be linked to each other as well. Apart from Rupa, the subjects maintain their networks by spreading them across more than one medium. In the case of Harleen, it is slightly unclear. She sometimes uses e-mail to stay in contact with her off-line friends but has not extended her on-line relations to other off-line mediums. Her on-line network appears to constitute what Rheingold and Reid refer to as an 'alternative' community. The individuals are all linked to each other but not to any other off-line network. The extent to which this is also the case for Rupa, can be questioned. Rupa's on-line associates are not connected to each other at all. Whether these communities are 'alternative' or 'integrated', in both on-line and off-line settings, the communities formed tend to be defined by mutual interests rather than just neighbourhood ties. Aspects of their identities define the social networks constructed by the four Punjabi women.

For all of the subjects, the ways in which their identities intersect with their on-line practices differ in many respects. Although they share a common linguistic bond, ethnic identifications tend to digress. Shetal and Harleen were born in England and have spent all their lives here. Rupa has only lived in England for seven years. She has spent a large part of her life so far in Punjab. Kamal's situation is a bit more complicated. Her parents originate from Punjab but she was born and raised in Kenya and has now been residing in England for the last three years. The extent to which these women define themselves in terms of their Punjabi roots, for example, varies because of the discrepancies in where and how they have been raised. This can also be recognized through the diversity of their Internet practices, in particular the kind of networks that have been formed.

Rupa's off-line network is defined in terms of cultural and religious interests. Her friends in England originate from Punjab although most of them were born here. She communicates with them in English. On-line however, Rupa interacts with individuals who speak different Indian languages. National affiliation is their mutual bond. Shetal's on-line and off-line networks are composed entirely of Punjabi individuals. She also communicates with them in English. Harleen's networks are similar to Shetal's. However, on-line she tends to interact with individuals in Punjabi. Kamal's networks are formed of a mixture of individuals – such as Punjabis living in India, Gurjaratis in Kenya, Pakistanis residing in England and so on. All of the subjects' networks appear to be constructed through 'part-identifications' instead of whole identities. In particular, Kamal's networks resemble what Brah refers to as a multiple and diverse 'cultural symbiosis'. Ethnic identities do not always intersect with

Internet use for all the women in the same way. For some, their Punjabi origins appear to be a main priority on-line, whilst for others it is of less importance.

Although gender identity has been a significant factor in the construction of on-line identities in some research, my data shows that there were few issues raised when thinking about gender on-line. Rupa was the only exception. By distinguishing between males and females on-line, she has generated a gender classification between on-line and off-line settings. Rupa appears to have imposed gender distinctions over this medium by reiterating a male/female dichotomy.

Previously, it was thought that the Internet reflects the 'multiple' and 'diverse' facets of a user's identity. My study has shown that this can also vary depending on each individual and the nature of their on-line activities. In some cases, the Internet has indeed become a way to forge an 'alternative' identity whereas in others it is merely an extension of their off-line selves. For example, Shetal's on-line practices constitute a specific and significant part of her identity, whilst her other interests and hobbies do not converge with the Internet at all. Her role as 'organizer' has moved from an off-line setting into a different environment. Contrary to Shetal, the various aspects of Kamal's identity *do* collide with her Internet practices such as her academic, personal and social life. In this case, the Internet is simply entwined with her everyday life although used for separate purposes.

In Turkle's study, users of MUDs created 'alternative' and 'new' personas. Their on-line identities were far removed from their everyday selves. In some ways this can be linked to Rupa's 'alternative' communication over the Internet. Whether she has created an entirely 'new' persona can be debated. Firstly, Rupa's on-line and off-line worlds are segregated through spatial, gender and channel differentiation. However, her 'alternative' lifestyle is not as far removed from her everyday life. In many ways, Rupa's off-line world converges with the Internet in the way that most of her interactions are consumed by 'everyday' and 'autobiographical' narratives rather than 'imaginary' stories. Secondly, in on-line environments, Rupa conducts relations with a diverse set of individuals. By revealing different aspects to each person, Rupa has managed to utilize the Internet to present a slightly varied version of herself. Rather than constructing 'new' 'fragmented' personas each time, she draws upon her own diversity to interact with the individuals in different ways. Her narrative is 're-contextualized' every time she interacts with a different individual on-line.

The extents to which users construct 'alternative' identities on the Internet also vary between each subject. For example, on appearances, it would seem that Harleen's on-line interactions are similar to those by Rupa. Yet, the on-line world is more of a 'parallel' and an extension to her off-line activities. There are few classifications between her on-line and off-line environments. In

one sense, Harleen's on-line and off-line practices are integrated and entwined and in the other, she communicates with individuals in a way that she could not normally do so in her everyday world. In retrospect, her 'alternative' world is not as explicitly distinguished as Rupa's.

In contrast to Turkle's assertions, the data shows that on-line identities can be multiple and diverse but this differs with each subject. Internet users do not always utilize the Internet for the purpose of 'experimenting'. Whilst some employ the Internet for a specific aim others use it for multiple purposes. The extent to which identities on the Internet are multiple and diverse depends upon individual use of the environments in the first place.

Reflection

In the second chapter of this thesis, I charted the development of Internet research. I began by observing the ways in which the Internet has been defined through concepts of 'identity' and 'community' before embarking upon more explicit findings in previous empirical studies. Two main limitations arose: i) any discussions or research into the Internet so far, were restricted to observing and analysing on-line behaviour; and ii) although some studies have been contextualised by off-line settings often acknowledging ideas of multiplicity, instability etc. the data produced was either too broad or lacking in diversity. In chapter three I proceeded by outlining my own methodology. In this section I attempted to justify ethnographic approaches to the Internet, research through interviews and the sampling procedure. Following on from this, I presented four case studies in chapter 4. The data generated three variables. Out of possible eight outcomes, four belonged to each of the subjects. No two users shared the exact kind of practices. Thus the results were varied and distinct.

To summarise, identities tend to be multiple, diverse, transformative and unstable but the extent to which this is intensified on-line can vary with each user. Secondly, the kinds of networks and communities that are formed in both on-line and off-line settings are based mainly on interests or some kind of religious/cultural affiliation. The social networks themselves are diverse. Thirdly, in some cases, on-line and off-line networks are separated to quite a degree whilst for others they are integrated. Within these, there are also more variations. Users can choose to separate or integrate different aspects of their on-line/off-line activities. Thus the dividing line between them is not so clear. Lastly, the women in this research appear to inhabit 'male' environments and their own approach to the Internet cannot always be defined through categories of gender distinction. The Punjabi women are crossing the boundaries that have been defining the Internet up until now.

Overall, the study points to how the four Punjabi women employ the Internet to enhance or develop a certain aspect of themselves. This technology is modified and re-contexualized within their everyday lives. The Internet has become a social tool within which the four subjects derive some meaning through interactive forms of communication. Rather than creating 'new' identities or 'experiment' over this medium, users are recruiting the Internet to suit their own individual needs and desires.

In reflection there are many areas of this research that can be developed further. Since this is an exploratory study into Internet use, the findings are not conclusive. There have been many limitations and shortcomings of this research. Due to restrictions on time, it was difficult to gather even more data on the research subjects. There are likely to be many areas that have been over-looked. A future possibility might be to combine on-line analysis with more in-depth participant interviews. Secondly, the sample is very small. For further improvement, this sample can be broadened and increased to include individuals from diverse backgrounds, ages and occupations. Nevertheless, this study has created some spaces that have not been utilized by the participants in this study, paving the way to future research.

Way ForwardAs this thesis concludes, I feel that it is possible to remark on the Internet and the possibility of its future use. At present, it seems that on-line and off-line networks and practices are beginning to interweave in ways that were not thought about before and will continue to break boundaries. Secondly, it seems that more people from contrasting backgrounds may begin to use the Internet and thus broaden definitions of the Internet even more. In the meantime examinations of the Internet cannot be captured through a single framework or narrative, (Castigan, 1999: xviii). This ‘network within networks’ needs to be studied and analysed through approaches and methods that are equally multiple and diverse. Narratives of Internet use mould the ways in which the Internet is defined.

> As we write, we are shaping the future of the Internet, shaping our ideas about it, and forming popular opinion. Much of what is written points to a personal perspective on the future of the Internet, based on how an individual thinks it will evolve. This is a history we are actively writing, (Castigan, 1999: xx).

The Internet is changing at a fast pace. The character of the Internet is not simply shaped by various networks but by the individuals who are using them; their purposes, motivations and the meanings that they provide them through their own use. The Internet is already being re-defined. Certain terms that have been used to characterise the Internet require revision. The boundaries between what is ‘real’ and ‘virtual’ are being confused and no longer seem appropriate when applying to the Internet.

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