# Understanding Online Communities Through Multiple Methodologies Combined Under a Postmodern Research Endeavour

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**Abstract**: Traditionally triangulation has been used for integrating multiple epistemologies. However such procedures have been criticised for failing to deal with the divergent realities encompassing alternative methodologies. An example of a postmodern methodological approach combining both positivist and interpretivist epistemologies is offered for studying online communities. Three diverse studies were employed to investigate the extent to which chatroom participants took advantage of the online medium to explore their identity. A quantitative survey of over 400 chatroom operators, a thematic analysis of in-depth interviews with five experienced chatroom users and an ethnography were employed. Survey results highlighted the importance of gender in determining the degree of identity exploration. However the remaining studies moved beyond the centrality of users' real life gender to demonstrate the significance of other factors. The ethnography highlighted the influence of both culturally stereotyped gender behaviour in constraining identity exploration, and possibilities for exploring identity through IRC's contextual features. In-depth interviews illustrated participants' conceptions of altering gender identity as a mechanism for protection or experimentation. Paradoxically constructions highlighted the importance of maintaining stability in one's online identity. Discussion focuses on the strengths of using multiple approaches which integrate the researcher's and the participants' own situated knowledge, rather than reducing understandings to single, monolithic frameworks.

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## 1. Inadequacies of Methodological Triangulation in Combining Qualitative and Quantitative Paradigms

Traditionally methodological triangulation has been the dominant strategy used to combine qualitative and quantitative approaches. Triangulation is based on the notion that multiple methods can be combined in order to test the same phenomena (DENZIN 1978). The concept itself derives from the field of navigation where multiple viewpoints were used to allow for greater precision in locating an object's position (SMITH 1975). One of the first reported instances of the use of triangulation in the social sciences occurred in the field of psychology. Utilising the phrase multitrait-multimethod matrix, CAMPBELL and FISKE (1959) deployed a triangulation procedure to examine whether a hypothesis could withstand the scrutiny of "complementary methods of testing" (p.82). Integrating divergent procedures for testing the same hypothesis excludes any possibility of bias resulting from particular weaknesses pertaining to a given method of investigation. Complementary methods are deployed under the assumption that weaknesses inherent in one approach will be counterbalanced via strengths in another. This acts to reduce data produced as an artefact of the particular procedures employed. Triangulation has extended beyond the focus on merely eliminating weaknesses in any one method, towards precluding bias associated with the source of fieldwork data (HAMMERSLEY & ATKINSON 1983), type of researcher or observer, theoretical approach and research methodology (DENZIN 1978). Across all situations, the success of combining divergent approaches has been judged via convergence in results, as a means of confirming the validity of a single reality. [1]

In relation to combining divergent research approaches however, researchers have expressed concern over whether methodological triangulation adequately deals with the ontological and epistemological differences inherent within quantitative and qualitative paradigms. How one conceptualises reality governs the way one produces knowledge, which subsequently affects what kind of knowledge is constructed. Within the field of psychology for instance alternative realities and paths to knowledge underlie quantitative and qualitative traditions. The quantitative tradition will be dealt with first. [2]

In drawing on the philosophy of the natural sciences, the quantitative paradigm has been afforded a dominant position within the hierarchy of approaches to knowledge production in psychology. Principles of quantitative research have typically been founded on positivism. Originally, as expressed by COMTE, positivism was based on the assumption that facts derived from observable phenomena are all that can be known (BOYD, GASPER & TROUT 1991). Extending this idea into social subjects of study, an external world containing universal causes and laws is conceptualised as underlying all social phenomena (GERGEN 1997). By adhering to the procedures of scientific practice, rules determining social phenomena can be unveiled. Goals for investigating the social world are premised on impartial, objective and value-neutral research (GERGEN 1997; HARDING 1986; REASON & ROWAN 1981). Here social interaction is reduced to measures of independent numerical scores providing objective and

value-neutral research outcomes. The more detached the researcher is from the participants and the social dynamics of the research context, the greater chance of guaranteeing objective and bias-free data. Within this objectively structured world, language is conceptualised as being a referent of something materially experienced (HARRE 1981). As such it represents a value-neutral medium reflecting a material reality. Constructing speech as a conceptually neutral act corresponding to factual reality allows for truth statements to be made (HUGHES 1990). [3]

In summary a quantitative approach to data generation assumes a particular conception of what is real based on universal principles underlying the social world. This leads to a mechanistic, cause and effect model for understanding human behaviour. On the other hand the qualitative paradigm presents an alternative means to accessing knowledge about the social world, within a different framework of reality. What is deemed real is socially constructed, in different physical locations in time under varying political systems and within diverse social and cultural practices (BURR 1995; GERGEN 1985; POTTER & WETHERELL 1987). We are all conceived as being part of a particular historical era surrounded by a particular social network. As such what we say is not only moulded by, but is constructed out of, these influences. Behaviour becomes inextricably connected to the ideologies existing within an immediate social network, where cultural understanding about the social world has been adopted. Further as members of the culture of academia, psychologists are seen as being socialised into pursuing intellectually respectable lines of enquiry about social phenomenon. What is socially and psychologically relevant about a given individual is deemed to be manufactured within the cultural environment in which such social psychological subject matter evolves (GERGEN 1973). Within this framework behaviour studied within the domain of psychology becomes socially constructed. Moreover language takes a prominent place within this ontology. [4]

A qualitative paradigm considers any interpretation of an event or object to not only be mediated by language, but also constituted by that language. Events and objects in our social world are made sense of through the discourses we use to interpret them (GAVEY 1989). Not only does language give us access to how individuals choose to structure their social world, the medium of communication itself creates these social and psychological constructions governing how we operate. In other words, the way we choose to understand human behaviour becomes inextricably linked to the ways in which our understandings are linguistically represented (GARFINKEL 1967; POTTER & WETHERELL 1987; SHOTTER & GERGEN 1994). Consequently a qualitative paradigm follows an interpretivist approach to knowledge production whereby reality is socially constructed within the discursive practices tied to specific cultural locations. Likewise behaviour itself is conceptualised as a construction of the social and cultural ideologies available within a particular context. [5]

In summarising the approaches outlined so far, qualitative and quantitative paradigms bring together quite distinctive forms of both knowledge production and conceptions of reality. Yet as FLICK (1992) points out, each triangulatory

strategy fails to recognise how it is inextricably linked to the subjectified reality created in the process of research. Indeed traditional notions of triangulation imply that regardless of the methodological approach adopted, one reality exists upon which to construct the subject of study. It is usually the quantitative approach which ends up dominating the research enterprise, while qualitative research is relegated to the position of exploratory first encounters to be evaluated and tested properly by "hard" methods. [6]

Others too have criticised the value placed on cross-validation as the purpose for adopting multiple methodologies. SILVERMAN (1985) challenges the idea of an omnipotent reality upon which all results are to be declared valid, advocating the need to understand each approach and its subsequent findings in terms of their own, unique frameworks. Several researchers have made attempts at resolving this theoretical crisis. [7]

JICK (1983) suggests that in addition to providing validation for research outcomes, deploying multiple approaches can be used to access a more holistic interpretation of the research context. In particular qualitative procedures can be used to uncover alternative explanations which may not otherwise be available via quantitative methods alone. Utilising qualitative procedures may raise new and unexpected findings leading to reformulation of old theories. In some cases qualitative data may offer a critical backdrop for reflecting on statistical results. Ultimately however JICK continues to espouse the view that validation is the fundamental strength associated with mixing multiple approaches. [8]

FOSTER (1997) offers a different perspective for including multiple approaches through the notion of conceptual triangulation. In this model the rigour of quantitative and qualitative approaches is each measured separately according to its own methodological criteria. It is only at the result stage that convergence may appear. Conceptual triangulation occurs once findings pertaining to each approach have been obtained. In bringing together the research findings, inclusive frameworks are developed to incorporate divergent results where possible, or multiple conceptual models are constructed. Yet, the notion of convergent findings as a means of cross-validation continues to dominate discussion. Consequently, while modifications to the traditional notion of triangulation have been made, they still perpetuate the idea of validating a single reality. However any given reality is limited by the contextual framework upon which it has evolved. For example, a researcher's reality may traditionally be captured within a theory-building and truth seeking framework. The reality embodied by participants, situated at once within and adjacent to the researcher's investigation, may be influenced more by the social interaction and cultural ideo-logies embedded in the specific social encounter. A postmodern approach may offer a useful methodological framework for incorporating divergent realities. [9]

## 2. A Postmodern Research Agenda

Postmodernism has developed as a philosophical and intellectual movement within the domain of knowledge production. Postmodern philosophy claims there can be no ultimate epistemology upon which to base our search for knowledge (LYON 1994). Hence it disagrees with the existence of metanarratives to encompass all explanations of social phenomena (BURR 1995). There is no universal position from which to evaluate or assess the social world (KVALE 1996; LYON 1994). The notion that one can progressively work towards an absolute representation of reality is challenged via a postmodern approach (ROGERS, STENNER, GLEESON & ROGERS 1995) since all forms of knowing are socially, historically and culturally mediated (CHARMAZ 1995; KVALE 1996). It is within this academic domain that hierarchies of knowledge collapse (LYON 1994). This notion of dissolving ideological hierarchies is also conceptualised within historical connotations attached to postmodernism. [10]

From an historical perspective, the postmodern era has been conceptualised by some as not only coming after modernism but also integrating values of modernist ideology (SHIELDS 1992; GRAHAM 1992). Beliefs evolve out of previous cultural constructions as all beliefs are a part of their historical and cultural context. GRAHAM (1992) goes further, noting that positivism has evolved as an intellectual product of the modern era. Therefore it is argued that positivist research methods cannot be excluded from a postmodern research agenda because of postmodernism's integral connection with the intellectual practices of the past, from which it has evolved. Consequently this leaves room for greater theoretical and methodological cooperation. [11]

Although common conceptions of postmodernism highlight paradoxes in the human condition, including the definition espoused by FIRAT and VENKATESH (1995), modernism's integration with the postmodern undermines this conceptual discontinuity. While the postmodern enterprise adopts a social constructionist view of reality, it does not deny the existence of modernist paths to knowledge such as positivism (FIRAT & VENKATESH 1995). Instead it argues for a wider pool of epistemological processes upon which to conceptualise the social world. In particular affirmative postmodernism is interested in widening the pool of approaches to knowledge beyond mere empiricism towards the inclusion of subjective meaning (CHARMAZ 1995). [12]

Fundamental to the postmodern approach is the need to contextually situate research. By acknowledging the diverse social, cultural and historical contexts in which research is produced, greater depth and breadth of outcomes can be examined. CHARMAZ (1995) argues that focusing on situatedness of knowledge facilitates the conceptual presence of co-existing realities. By considering the contextual aspects of research, including its social, cultural and historical situatedness, a postmodern research agenda offers a critical platform from which to interpret all knowledge practices. [13]

Drawing from contrasting methodologies laid down in the following studies and their varied findings, this article aims to illustrate the use of a postmodern research praxis. The kind of approach argued for here is more in line with the notion that alternative approaches to knowledge produce a wider range of explanations from which to understand the social world. FIELDING and FIELDING (1986) have noted that different approaches produce greater depth and breadth on a topic rather than necessarily extending the accuracy or objectivity of outcomes alone. [14]

Authors like FIRAT and VENKATESH (1995) point out that the postmodern approach advocates an eclectic form of knowledge production, in which procedures are not limited by rigid disciplinary boundaries. The research reported in this article offers an eclectic methodological approach to studying identity exploration within an online community, namely Internet Relay Chat (IRC). The next section presents a selected overview of prior research investigating identity exploration within online communities. [15]

## 3. Literature Review

The idea of breaking free from one's mundane identity and experimenting with scintillating opportunities for self-exploration online has proliferated through popular media (GLASSER 1995; GODWIN 1996; RHEINGOLD 1993; VAN DER LEUN 1995). Notions of liberation from all labels of the physical world and freedom from convention abound. Virtual worlds are supposed to allow users to indulge in their deepest, most outrageous fantasies without considering the consequences of their actions as responsibility ceases to exist within cyberspace. Research investigating online communities supports the idea of members utilising the textual medium to explore beyond traditional notions of identity. [16]

Through a combination of research approaches including ethnographic observations, focus groups, and in-depth clinical-type interviews, TURKLE (1995; 1996; 1998) focused on identity construction within Internet communities, particularly multi-user dungeons (MUDs). MUDs are synchronous, collaborative, text-based role-playing games. Users choose their own self-descriptions including gender and have shared access to a database comprising descriptions of rooms and objects. By manipulating descriptions users can interact with other players and create additional objects. TURKLE (1995) observed that role-playing activities on MUDs allowed users to escape from their real life (RL) identities and transcend to a higher power in exploring radically different personae. BROMBERG (1996) too has observed how members of online communities possess the freedom to explore more powerful identities than would ever be available in RL. BROMBERG noted virtual reality allows users the opportunity of transcendence through the realisation of their personal dreams, as well as assisting users to think differently about their sense of self. In a pioneering study, REID (1991) investigated the recreational use of Internet Relay Chat (IRC), a synchronous, multi-user, text-based computer-mediated communication (CMC) program that allows individuals to chat simultaneously with other users on a wide range of channels or chatrooms. REID (pp.14f.) concluded,

> Users of IRC treat the medium as ... a virtual reality of virtual freedom, in which participants feel free to act out their fantasies, to challenge social norms, and exercise aspects of their personality that would under normal circumstances be inhibited. [17]

An example of online users' ability to explore beyond traditional social practices has been to alter their identity, namely switching gender. In a year-long participant-observation study of an object-oriented MUD, where objects are deployed to develop interactions with other players, CURTIS (1996) identified frequent incidents of RL men adopting female-presenting characters. CURTIS suggested that the lack of RL women players led some men into maximising on the gender-switching capabilities of MUDs to lure males into interactions of a sexually explicit nature. "This is such a widely-noticed phenomenon ... that one is advised ... to assume that any flirtatious female-presenting players are, in real life, men" (p.354). Other researchers like BRUCKMAN (1996a), McCORMICK and LEONARD (1996), and SPENDER (1995) have commented on this also. [18]

Researchers such as CURTIS (1996), SERPENTLELLI (1993) and SULER (1999) put forward a number of reasons to explain men's attraction towards gender-switching. While some justifications revolve around homosexual, transsexual or transvestite tendencies others focus on the lack of attention one receives as a male-presenting player. When logging on under his own name, POMEROY (1996) was ignored, receiving virtually no acknowledgement of his existence via greetings or comments from other users. Yet logging on under an overtly female name brought forth a barrage of messages. It was further suggested that due to the marked under-representation of women on MUDs, those choosing to present themselves as such accessed more opportunities for interesting social interactions. Another prominent reason for gender-switching involved deceiving others into acts of a sexual nature for one's personal amusement. [19]

Men's gender-switching posed problems for RL women-presenting players, many of whom were coerced into proving their gender (CURTIS 1996). Moreover RL women-presenting players reported being besieged by gender-stereotyped responses including frequent harassment as well as overly attentive and chivalrous behaviour. The electronic medium with its lack of social context cues and elimination of physical gender markers may serve to exaggerate cultural representations of what it is to be male and female (HALL 1996). [20]

KENDALL (1996) argues that switching one gender for another only reproduces existing gender stereotypes, while doing nothing to change individuals' expectations regarding gender as a social construct. Indeed, considering the patriarchal foundations through which the Internet has evolved (PERRY & GREBER 1990; EDWARDS 1990) in addition to the dominant masculine sub-culture embodying the Internet (TURKLE & PAPERT 1990; GERSCH 1998; EDWARDS 1990) it may not be surprising that gender stereotypes have been sustained, as opposed to the development of alternative conceptualisations of identity. Polarising cultural stereotypes of gender serves to reinforce existing

power differentials within society, which benefits men rather than changing the status quo. [21]

Other explanations put forward to explain men's attraction towards gender-switching have centred around exploring beyond what is possible and culturally acceptable for men in RL. Such examples include experimenting with one's sexual orientation, testing out dynamics of female relationships with advantages for improving opposite gender communication, and exploring one's "feminine" side (CURTIS 1996; SERPENTELLI 1993; SULER 1999). VAN GELDER (1991) reports how a male psychiatrist posed as a woman with a disability for the purpose of exploring what it is like to be female including the intimacy involved in female relationships both from a sexual and friendship perspective. BRUCKMAN (1996a) highlights the case of a male software engineer who was able to display the more helpful attributes of his personality by taking on a female character. The female framework gave him permission to express those attributes which would normally be deemed inappropriate to express within a masculine identity, suggesting that cultural constructions of manhood preclude certain behaviours accessible through a female persona. In addition to challenging one's social identity virtual environments have also facilitated exploration beyond accepted codes of behaviour, indicative of the hostility engaged in online forums. [22]

HERRING and colleagues conducted extensive research looking at gender differences in online participation and communication styles (HERRING 1992; 1996a, b; 1994a, b; HERRING, JOHNSON & DIBENEDETTO 1992; 1995). Findings consistently showed men dominating discussions. When women did manage to increase their participation men used a number of mechanisms in silencing women's voices, such as responding via vicious confrontation. HERRING et al. (1995) concluded that in addition to socialisation and women's subordinate social status, women's silence was actively constructed through online interaction. [23]

Hostility extended to sexual violations as well. For instance when adopting an overtly female name, a male researcher encountered comments such as "Hey babe, wanna f***?" (POMEROY 1996, p.114), and "You ignoring me, b***h?" (p.115). Moreover DIBBELL (1993) reported on the virtual rape and mutilation of two MUD characters, one female and one androgynous, within a public forum. The assault was administered via a program enabling actions to be attributed to other players without their permission. The male perpetrator excused the behaviour by categorising it within the parameters of textual reality separate from physical action. The victims however felt grossly violated as the textual event held profound symbolic meaning. Debate over the ethicality of the male psychiatrist presenting as a disabled female psychiatrist, has also been raised. One of the women preyed on by the psychiatrist's impersonation commented how the online medium presents more of a problem for women than men since the latter have a greater tendency to engage in contrived games, whereas the former are more inclined to "give people the benefit of the doubt." (VAN GELDER 1991, p.374.) While some victims perceived the impersonation as innocuous, conceptualising a

person's biological category as meaningless online, others deemed the deception a case of "mind rape" and considered laying charges (VAN GELDER). [24]

DERY (1993) proposes that the disembodied nature of online interaction frees users from the threat of reprimand resulting from behavioural transgressions. Consequently some users see this as reason to explore unconventional behavioural practices including hostility, violence and deception. HALL (1996) suggests that the online frequency of male dominance in conversations and sexual harassment signifies males accentuating the cultural stereotypes of masculinity. [25]

As a result of the sexual violence directed at female presenting characters, VAN GELDER (1991) notes women often adopt androgynous 'handles' (names for their online persona). Similarly others report that in obviating stereotyped responses from males many RL women choose to present themselves as either male, neuter or gender-neutral (CURTIS 1996; McCORMICK & LEONARD 1996; SPENDER 1995; WYLIE 1995). Yet there is nothing stopping women from constructing virtual realities congenial to their value systems, governed by rules which control membership and preclude abusive messages (BRUCKMAN 1996b). In opposition to the oppressive environments created by patriarchal ideology, women have actively created their own supportive and respectful forums in which they can assert their dominance (HALL 1996). Further, cyberspace opens up opportunities to redefine the way gender roles and gender identity are re-presented. [26]

In capitalising on virtual reality's ability to deconstruct the physical self, liberal cyberfeminism espouses the view that body-free interaction allows people to be identified through a non-gendered, non-binary ideology based on equality (BAKER 1994; HARAWAY 1991; PLANT 1996; HALL 1996). The cybernetic revolution and its developments into human-machine synthesis fuels possibilities for eliminating the dualism between the biological and social categories of male and female (HARAWAY 1991). Taken for granted distinctions between what it is to be a man and a woman have the potential to become blurred and meaningless. Cyber-related scholarship suggests gender socialisation also impacts online, however. [27]

Differences in the way men and women interact online have been attributed to gender socialisation (CARDMAN 1990; SPENDER 1995; TURKLE 1988). TURKLE notes girls are socialised into maintaining their safety through contingency planning and finding out the rules prior to any action; whereas boys are trained in the art of exploration, adventure and risk-taking, with very little forethought about the consequences of their actions. Studies in computer programming styles lend some support for this (TURKLE & PAPERT 1990). Suggestions have also been made regarding online users accentuating cultural beliefs surrounding masculinity and femininity. The present research aimed to investigate the extent virtual users were choosing to explore beyond traditional identity roles. [28]

Specifically, research focused on members of the online chat community (otherwise defined as IRC). Three diverse studies were employed to investigate the extent to which chatroom participants took advantage of the online medium to explore their identity. A quantitative survey of over 400 chatroom operators, a thematic analysis of in-depth interviews with five experienced chatroom users and an ethnography were involved. While the survey results highlighted the importance of gender in determining the degree of identity exploration, the remaining studies were deployed to highlight the significance of other factors. The ethnography demonstrated the influence of both culturally stereotyped gender behaviour in constraining identity exploration, and possibilities for exploring identity through IRC's contextual features. In-depth interviews illustrated participants' conceptions of altering gender identity as a mechanism for protection or experimentation. Paradoxically however constructions also highlighted the need to maintain stability in one's electronic persona. These distinct studies brought together both positivist and interpretivist epistemologies. Further the data collection techniques used bridged quite diverse sub-fields within psychology including mainstream and discursive. The ethnography and in-depth interviews also reflected methodologies already embedded within anthropological or sociological research domains. A multidisciplinary, eclectic, even postmodern research practice has many advantages. Deploying multiple approaches allowed for both the researcher's and participants' situated knowledge to gain exposure, rather than reducing understandings to a monolithic framework. [29]

From a technical perspective, IRC (Internet Relay Chat) is a multi-user, multi-channel, real-time chat program based on a client-server operating model (PIOCH 1993). The synchronous nature of the IRC medium tends to distinguish it from other types of online communication software, excluding of course MUDs (Multi-User Domains) and ICQ (I Seek You), which also run in real-time. Typically potential users must install a client or chat program, which can be downloaded from the Internet on their local machine. The client software enables users to connect to an IRC server: a program run on a distant computer that remains connected to the Internet full-time, which transfers messages from one client to another. The server allows multiple, simultaneous connections to clients and other servers. Connections between various servers form the basis of an IRC network. Once users have connected to a server they can log onto an IRC network. Each user chooses their nickname from which to be identified. Nicknames offer people the opportunity to re-present a persona or construct an alternate self-description not otherwise available in RL. Once logged on, users also have the ability to access thousands of people via a multitude of chatrooms, or channels, as they are more commonly referred to within the IRC community. Outcomes from the quantitative study follow. [30]

## 4. Survey Results: User's Real Life Gender Influences Identity Exploration

An online survey was conducted to investigate the extent to which chatroom users were exploring their social identity. A total of 423 chatroom participants took part comprising of 316 males and 105 females[1] aged between 11 and 66 years. Participants were not recruited randomly. They were targeted using a variety of methods over a four-month period, including advertising on chatrooms, as well as newsgroups and mailing lists both related and unrelated to IRC. Respondents were given a web address directing them to the survey's website, from where they submitted their responses. [31]

While there were nine questions in the survey, this article limits discussion to six of those specifically dealing with issues surrounding identity on IRC. Questions included whether respondents identified as being the same on IRC as in RL or something different; whether respondents' typical nickname identified them as male, female or other (defined as neuter or gender-neutral); and whether respondents had used two or more nicknames simultaneously. Those affirming concurrent usage of multiple nicknames were required to explain their reasons, in addition to rating the frequency of such behaviour on a 5-point scale ranging from 1=hardly ever to 5=all the time. Two other questions asked respondents to consider if they had ever adopted a nickname suggesting an opposite gender to what they were in RL, and if they had ever indicated during an IRC session being younger or older than in RL. A further question considered whether respondents wanted a higher status position, irrespective of the status position they typically adopted. The survey also collected respondents' demographic details. [32]

In detecting participants who filled the survey out multiple times, respondents' Internet Protocol (IP) address, which is a unique digit code identifying an individual's Internet connection, was recorded. From a total of 438 responses, 3% constituted answers from six users who had completed the survey multiple times, with one individual having completed it on five separate occasions. It is important to note however that multiple responses from the same IP address may have also been due to different people completing the survey under the same Internet account. However as there was no way of differentiating between these two groups, all were considered fabrications. Hence responses from users completing the survey multiple times were discarded, leaving a total of 423 cases for analysis. [33]

Results tended to support the idea that males were more likely to take advantage of the electronic medium in exploring their identity. For instance results showed males were more likely to identify with being something different on IRC in contrast to how they perceived themselves in RL, $X^2$, ($\underline{df}$=1, $\underline{N}$=423) = 7.2, $\underline{p}$<.01. There were no gender differences for adopting multiple nicknames concurrently as a majority of users engaged in this activity. [34]

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1   Two participants did not answer the demographic question on RL gender.

Reasons for using multiple nicknames were divided into six categories: channel protection and management (as multiple nicknames provided multiple connections, which helped maintain network stability), technical purposes (where adopting multiple nicknames or multiple connections allowed users to accomplish two tasks simultaneously such as checking server response times and network connections in cases of lag), violating chatroom rules (which involved adopting another nickname in order to engage in prohibited activities), covert activities (such as finding out what others were saying about them), individual safety (using multiple nicknames acted as a decoy when being followed and pestered by irritating users) and experimentation (such as playing pranks on others and exploring multiple identities). These categories were formed via inductive analysis of the data conducted by the researcher. Males were more likely to engage in multiple nicknames for experimentation (27% versus 16%), while more females adopted multiple nicknames simultaneously for technical purposes, $X^2$, ($\underline{df}$=1, $\underline{N}$=178) = 5.00, $\underline{p}$<.05. From the 269 respondents who reported entering IRC under two or more nicknames, 49% had hardly ever engaged in such behaviour, while 37% had participated some of the time, 4% half the time and 10% most or all the time. [35]

No gender differences occurred for the correspondence between the gender identity marker indicated by participants' regular choice of nickname and their RL gender. Only 3% typically chose a nickname that was inconsistent with their RL gender, while 56% employed a gender consistent name and 41% a gender neutral name. However, when it came to having ever adopted a nickname that suggested an opposite gender to RL, more males chose to gender-switch compared to females, $X^2$, ($\underline{df}$=1, $\underline{N}$=420) = 6.07, $\underline{p}$<.05. There were no gender differences for age-switching. Yet when it came to desiring a higher status position on IRC regardless of one's current situation, more male than female respondents wanted this, $X^2$, ($\underline{df}$=1, $\underline{N}$=336) = 4.70, $\underline{p}$<.05. [36]

Results suggested that gender socialisation, with respect to the way men are taught to explore beyond their boundaries, extends to the online arena regarding differentiation in degrees of identity exploration between male and female chat users. Survey findings provided some support for the notion that one's RL gender determined the degree of identity exploration engaged in online, with men being more likely to experiment beyond conventional identity boundaries. However, there were no gender differences associated with users' regular choice of identity marker. Regardless of gender, very few chose a gender inconsistent name. Instead just over half chose to identify under a nickname commensurate with their RL gender. Simultaneously a large minority chose to break free of the traditional construction of gender by adopting an androgynous online identity. To summarise while men are more likely to maximise on opportunities to explore their identity, there are no gender differences when it comes to choosing a regular identity marker, with both genders conforming to traditional identity markers and to some extent also exploring beyond those markers. The second study, employed to investigate the extent to which chatroom users went about reconstructing their social identity, drew upon an alternative epistemology. [37]

## 5. Ethnographic Results: Influence of Contextual Factors and Cultural Stereotypes on Identity Exploration

An ethnographic-based project was undertaken to explore participants' identity construction on IRC. The kind of approach adopted falls within the category of interpretivist research. It was here that I was intent on understanding the subjective meanings of participants' activities. Such a study encompassed two months of fieldwork. [38]

Throughout the fieldwork I chose to present myself under the nickname 'Zeela'. In addition to being compatible with the variety of other nicknames used it provided a confident and strong facade in contrast to the inexperience and insecurity I felt as a novice. Although it indicated my gender being female it did not occur to me to take on a gender neutral or masculine name, as at that point in time I could not relate to a gender neutral or masculine identity. Being female was all I knew and felt comfortable with. [39]

Data collection procedures encompassed observing, participating, taking field notes as well as logging all communications. I was interested in learning as much as possible about the inhabitants of IRC including their ways of communicating, the types of activities they engaged in and how it all happened. By immersing myself within users' cultural practices I also aimed at gaining a broad understanding of IRC's richness and complexity. EMERSON (1983) points out though how ethnography does not aim to describe everything that goes on within a single event. This is unobtainable as any form of re-presentation involves bias and selectivity. [40]

Indeed an ethnography cannot claim to accurately reproduce elements of a culture as experienced by the regulars who inhabit it, as all knowledge practices are socially and culturally mediated. Instead the author's reflexive observations and subjective experiences are inextricably embedded within the ethnographic narrative. It is here where the researcher's voice is allowed to take prominent place within the sphere of knowledge construction. The narrative is at once a product of the meaningful activities engaged in by the inhabitants, intertwined with the researcher's subjective experience (COFFEY 1999). Subsequently ethnographic description transforms participants' experience by re-presenting it in such a way. Particular actions and social events are ordered in accordance with the researcher's theoretical framework. The ethnography itself is a re-construction of participants' constructions of their own social activities (GEERTZ 1983), which leads onto providing one interpretation of users' socially meaningful behaviour. While fieldwork subsumed a broad range of topics in pursuit of potential avenues for identity construction on IRC, this forum limits discussion to choice of nickname, deregulated environment, anarchic nature of the medium and the action command. [41]

In contrast to RL where one's name and hence method of identity is prearranged due to circumstances beyond a person's control, nicknames offered a unique opportunity to decide upon one's identity, reflecting the epitome of autonomy on

IRC. Nicknames like Tora, PeAp0d, Amyl, Yawn, blimP and lurkapup captured a plethora of non-gender specific characters. An IRC nickname alone had the potential to encapsulate and communicate online personae. Further the deregulated nature of the medium, where rules for each chatroom were dictated by the whims of operators, combined with the anarchic culture promoted in many chatrooms, afforded an element of creative license. Participants could construct anything providing linguistic structures were available for representing their conceptualisations. Subsequently one's ability to explore an alternative identity developed courtesy of the medium's cultural context, rather than necessarily as a result of one's RL gender. Identity exploration was facilitated further by the medium's technical features, namely the action command. [42]

Actions were performed using "/me..." as in "/me is bored," which appeared on the screen as "*Zeela is bored." This innovative device enabled participants to build an entire persona, or embellish a pre-existing character with scintillating behavioural descriptions. Examples of the action command are integrated below in extract 1. [43]

Chatroom titles are prefixed with the "#" symbol. Messages, excluding actions, are preceded by the user's nickname <in brackets>. Dialogue in chatrooms at times seemed intermingled as conversations occur in spontaneous co-articulation, with the number of participants ranging from single to triple digit figures. (Throughout the preceding extracts, examples of actions have been numbered. Superscripts denote footnotes for explanations and were not part of the dialogue. Extracts used here have retained their original formatting including spelling and grammatical errors for the purpose of maintaining integrity of data.)

> (1)
> Session Start: Sat May 03 18:19:12 1997
> *** Now talking in #TSA_List
> * Jason is grabed my the creature... **-1-**
> <_Jason> ARRGGGG.. ITS GOT ME!!!!
> * Eirik pokes at a creatures eye with his sharp beak **-2-**
> <_Eirik> Take that!
> [44]

The action command was primed for image and identity construction. In collaboration, users could build a prose from which to explore alternative identities. Extract 2 (adapted from BOWKER 2000) illustrates how the action command also functions as a narrative, positioned parallel to the standard discourse.

> (2)
> Session Start: Sat May 03 18:41:15 1997
> <_SCORPIO> angel: party...
> <_angels__> wha?
> <_angels__> what about party?
> <_angels__> aiya u guys are confusing

> <_angels__> :PPPpppPPPp[2]
> <_SCORPIO> letŽs make one.. :)
> * HellSpawn sneaks behind Angel and pinches her butt ! **-3-**
>
> <_angels__> ohhhhhhhhhhh
> <_angels__> hahaha hell
> * angels__ SlApS*** **-4-**
>
> * HellSpawn studies in Petrochemistry of plastic transformation **-5-**
>
> <_angels__> sowwy hehe
> <_angels__> hUH?
> <_angels__> why?
> <_angels__> u gonna become a plastic surgeon eh?
> * HellSpawn sneaks behind Angel ... gives her a hug and ... vanishes **-6-**
>
> <_angels__> awwwwwwww
> <_angels__> hahaahahah
> <_angels__> are u flirting hell? eh?
> * HellSpawn sits next to Angel ... and tells her " Your cute." " I like you" **-7-**
> [45]

The extract presented here captures traditional romantic discourse associated with boy chasing girl. Hence, although participants have at their constructive disposal every narrative possible providing that it can be accessed via the linguistic resources of the textual environment, romantic threads akin to traditional culture still managed to gain some presence. Moreover the third action, in which Hellspawn decides to pinch angel's bottom actively replicates a form of sexual harassment. Activities constructed through actions resembled "playground chasing and kissing games, albeit with more advanced sexual promiscuity" (BOWKER 2000). At the same time, angel's and Hellspawn's narrative illustrated the inherent frivolity embedded within online chat. [46]

To summarise, in addition to one's RL gender as indicated earlier, the second study suggests that conventional conceptualisations surrounding gendered behaviour also have an influence over some users' choice of character role within IRC. In this instance instead of exploring beyond conventional identity roles, as was indicated by male participants in the previous study, Hellspawn (assuming this character was also male in RL) chose to recapture culturally stereotyped gender behaviour. Further deployment of the action command, as well as the anarchic and frivolous context of the chat environment which helped facilitate creative license to construct any nickname of one's choosing, brought together the potential for innovative (and non-gender specific) forms of identity construction. The final study focused on how users constructed their identity online, including gender identity. [47]

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2   This denotes someone poking out their tongue in RL. Imagine ': P' transposed 90 degrees clockwise. It signifies someone being cheeky.

## 6. Thematic Analysis: Conceptualisations of Altering Identity Versus Stability in Identity

Five chatroom users were interviewed in order to investigate how they chose to construct their identity online. A small sample size was chosen because the aim of the interviews was to gain in-depth understanding about users' discursive constructions. Participants comprised of three males (Yawn, Bucko and Tora) and two females (Starla and Amyl) with ages ranging from 16 to 25 years. The roles participants occupied included that of tertiary and secondary school students, a software engineer, a first year administrator for a computer science course and a retail property manager. Interview questions surrounded six broad themes including initiation into IRC, user details, identity, which incorporated gender and age swapping, accessing power, perceptions of rules and opinions about the people and situations encountered. [48]

Each participant received an information sheet and a consent form describing the interview and its purpose. Participants also received a copy of the interview schedule prior to each interview. While this gave participants more time to consider responses, being informed about expectations of the interview may have facilitated greater ease of participation and disclosure, eliminating potential anxieties regarding the questions asked. This was particularly apt for understanding how users explored their identity on IRC. Prior knowledge of questions gave participants as much as knowledge about the interview as the researcher, thereby undermining power relationships inherent in research contexts. [49]

A thematic analysis of the interviews aimed to access the complex nature of users' experiences gaining in-depth understanding of their world as lived and experienced by them. An interpretivist approach was particularly useful because it attempted to understand participants' subjective meanings, rather than limiting conceptions to those adopted by the researcher (BANISTER, BURMAN, PARKER, TAYLOR & TINDALL 1994; KVALE 1996). Techniques drawn from discourse analysis (DA) were used within the thematic analysis. [50]

DA considers language as a tool through which social reality takes place (BURMAN & PARKER 1993; POTTER & WETHERELL 1987; 1995). Words and phrases used to construct the world are inextricably linked to the way people choose to conceptualise their reality (EDWARDS & POTTER 1992). What is deemed real is culturally, socially and historically constructed through a linguistic system of meaning. Moreover language becomes a resource that individuals use to accomplish specific actions such as legitimising, blaming and accounting for behaviour. Reflexivity becomes embedded within the analysis. Participants' discourse becomes conceptualised as one among many versions of an event. [51]

The interview transcripts were not considered complete copies of the original event (KVALE 1996). A complete and accurate reproduction using any form of transcribing is unattainable (EDWARDS and POTTER 1992). Rather transcripts were a construction based on the researcher's judgements about what

should/should not be included. As a textual re-presentation of an embodied, interactional event, the interview is portrayed as static; frozen in time (KVALE 1996). The analysis focuses on how interviewees were conceptualising identity construction on IRC. It begins by considering identity exploration with respect to gender-swapping and ends by describing the importance of maintaining stability in identity online. [52]

Participants' justifications for reconstructing gender identity online varied. The extract below is taken from one of the female interviewee's transcripts.

> **-3-**
> some people have sent me ... private messages saying are you really female and I say no or they say um tell me your age and sex and I say fifteen and-and female no fifteen and male that's what I say it's strange that they don't contact me again um I don't consider this a bad thing I mean ok that's lieing and lieing's not really all that great a thing to do on the whole but we all do it almost all do it and if they don't love me for my mind then I don't love them for their's either um so the-the fifteen year old male is clearly never approached in quite the same way as the any aged female at all ... [53]

This woman conceptualised gender swapping as a mechanism for protection against sexual objectification. While it was a means to trick people, the outcome led ultimately to maintaining one's dignity and value. Although the author acknowledged switching gender was deceitful, it was constructed for the greater good of securing one's self-worth. In other words there was an honourable reason for this deception. Linking honourability with deceitful behaviour served to preserve the integrity of the author's actions. Further, comparing females of any age with males of a particular age on the scale of approachability suggested affording greater value to all women online, elevating them to a higher social plane. Males were also aware of women being targets for sexual exploitation, and the security in assuming a non-female specific name, as indicated below.

> **-4-**
> I get often many many times as mistaken for eh a woman right cause my name's tora and um so I get all these sick guys you know saying hey you know baby do you want to come into a private chatroom or something like that
> **-5-**
> people tend to choose either a very gender specific nickname or they choose a nick neutral one or a deliberately misleading one to um which is quite common for females to um choose a name that looks like a male name so they don't get hassled [54]

In extract five identifying as male on IRC reflected a safer form of being. It indicated that even within a virtual environment, where opportunities to redefine one's social identity abound, women's choice of identity online was still circumscribed by sexual stereotypes of female identity. Discursive constructions highlighted how the dominance of cultural stereotypes surrounding gender behaviour was accentuated online. Extract six illustrates how male interviewees

utilised the sexual objectification attached to women-presenting players, in order to lure other male participants into encounters of a potentially sexual nature, in addition to exploring co-articulating selves.

> **-6-**
> I've come on under two so you can create amusing situations where you can talk to yourself ... I've brought on a second person as another gender yeah oh the-there's ones where I've let people assume what kind of gender I have and have basically led them on I mean they're basically interested in um in netsex or something like that so I'm quite happy to lead them on to the point I will then tell them that they've just made this mistake um more for humorous reasons than anything else [55]

In these instances gender-switching was a useful technique for satisfying one's experimental and entertainment pleasure. The second part of the construction above indicates the deceiver was willing to entice users under false pretences because the individuals concerned were interested in netsex, suggesting the injustice of alluring other males was justified because those males were motivated by activities of a sexual nature only. Further attributing one's interest in gender-switching to personal amusement, combined with the intimation of low social morality linked to users who are attracted to netsex, helped diminish any negative connotations associated with someone who chooses to switch gender. [56]

In addition to altering gender identity for humorous purposes, another male interviewee highlighted the ability to challenge behavioural boundaries. The rules on many chatrooms prohibit nickname alterations because the process of changing names interrupts communication flow. More importantly it can be employed to deliberately take on another user's identity for fraudulent purposes. Consequently perpetrators are kicked off (temporarily restricted) and banned (permanently restricted) from the chatroom.

> **-7-**
> there was a couple of guys who loved getting ... kicked off channels[3] and-and permanently banned off channels that er that-that I'd never go to and there might be sort of um I-I can't remember the channel probably just some sex orientated channel so you know I guess what's it like to be the other gender but I wasn't doing it to be malicious I wasn't doing because I was curious I was just doing it so I got kicked and banned ... but it was only to cause mischief no it wasn't er anything devious [57]

Explaining that one's motives for gender switching are associated with causing mischief, rather than for devious or curious purposes functions to safeguard the gender-switcher's dignity, precluding any judgement based on sexual deviance. This construction suggests some online users were conceptualising gender switching on the basis of traditional conceptions of abnormality surrounding the corporeal equivalent of gender-switching offline, namely cross-dressing. Regardless of the freedom to explore beyond conventional boundaries of gender

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3   Chatrooms and channels refer to the same concept.

identity, participants transferred deviant stereotyped beliefs surrounding gender exploration into the IRC environment, irrespective of the fabricated practices engaged in within many chatrooms. Furthermore interviewees' conceptions of online self-presentation deployed traditional beliefs surrounding the importance of stability in identity, as outlined in extracts eight and nine.

> **-8-**
> my IRC usage and needs are such that I'm just happy to be who I am I don't engage in a different persona as such ... I don't take any pains to hide who I am on IRC;
> **-9-**
> I am who I am um it was a concern of mine [that] ... until I actually know the person I-I can probably call them friend or associate I wouldn't you know I don't give them my real name so that's just me because I know there are people out there who when they're online are not themselves [58]

Both extracts indicate identity-alterations are constructed as bridging the abnormal and immoral behavioural divide. IRC citizens who fail to conform to the non-identity-altering ideal are left dysfunctional, bordering on the point of self-corruption. They have no desire to uphold the virtues of a genuine identity. Instead these participants must operate via a deformed sense of self and irrational psychological reality. Further, extracts suggest stigmatisation may be linked to the adoption of an alter ego on IRC. [59]

Poignant stereotypes surrounding chatroom inhabitants, who are dissatisfied with their corporeal identity and subsequently engage in alternate personae, have proliferated through popular media. This discourse ostracises those who fail to follow consistency and stability in identity. Extracts seven and eight reflect interviewees' awareness of this intolerance and at the same time highlight participants' constructive power to dispute rigid conceptions by producing consistency in selfhood online. Preserving an essentialist notion of selfhood online, moreover corresponds with consistency in identity, which is integral to stable beliefs about personhood within embodied reality. [60]

To summarise, contradictory constructions regarding identity transformation online were captured across the texts. Extracts three to seven, which concentrated on gender identity exploration, indicated participants were conceptualising gender identity manipulation as a strategic mechanism for either protection against sexual objectification, or as a tool for experimentation whether that included amusement or challenging behavioural boundaries. Paradoxically extracts eight and nine highlighted how participants focused on the integrity of maintaining a stable online character commensurate with RL. This discourse served to undermine the conception of chatrooms as forums to indulge in scintillating avenues for self-exploration through transforming one's persona. [61]

## 7. Conclusion

The three studies offered both different and converging platforms upon which to understand chatroom behaviour. Quantitative results supported the notion that RL gender determines degree of identity exploration, providing some support for gender socialisation, with respect to men traditionally being taught to explore beyond their boundaries. This need to challenge boundaries seemed to transcend into the virtual medium, in terms of differentiation in degree of identity experimentation between male and female chat users. Behavioural attributions based on gender socialisation re-appeared in the discursive analysis of users' conceptualisations regarding exploration of gender identity. Men's reasons for switching gender were constructed around the notion of a tool for experimentation, whether that occurred for the purpose of one's personal amusement and identity exploration or challenging behavioural boundaries. Quantitative and qualitative results illustrated how one's RL corporeal characteristics still maintained a degree of influence over behaviour within a virtual environment. However gender was not the only factor determining the degree of identity construction online. [62]

Interpretivist findings demonstrated participants were also replicating cultural stereotypes surrounding gendered behaviour. The ethnography indicated that conventional conceptualisations surrounding gender behaviour influenced some users' choice of character role. Instead of exploring beyond conventional identity roles, a male-presenting player chose to replicate culturally stereotyped gender behaviour. Further discursive results showed, that irrespective of one's gender socialisation, men were aware of the cultural stereotypes associated with a female gender identity when taking on a female-presenting persona as a means to lure other men into acts of a potentially sexual nature. In addition to cultural stereotypes of gender behaviour impacting on participants' choice of role identity, contextual features of the environment had an influence. [63]

The action command and the anarchic and frivolous character embodying many chatrooms, together with the creative license for constructing a nickname to capture any kind of persona, provided opportunities for liberating users from traditional identities. This brought forth the potential for innovative (and non-gender specific) forms of identity construction. Indeed 41% of IRC users in the survey assumed a gender neutral nickname as their regular identity, irrespective of RL gender. Contextual influences also served to constrain one's choice of identity marker. For example reasons for manipulating women's gender identity constructed by both male and female interviewees were conceptualised as a strategic mechanism for protection against sexual objectification from other males. Interviewees' discourse indicates that patriarchal culture characteristic of embodied reality was also manifesting itself within the virtual arena. This resulted in circumscribing women's choices of identity markers. Moreover, popular conceptions surrounding the abnormality associated with exploring alternate personae online appeared to limit interviewees' conceptualisations of their identity on IRC to the point of positioning alternate identities within the category of social deviance. Overall qualitative studies gave access to contextual parameters

existing outside of the individual, which both constrained and liberated users' potential to explore their social identity. [64]

In conclusion, initially the first study suggested evidence supporting the claim that one's RL gender impacts on the degree of identity exploration one chooses, based on gender socialisation theories. This offered a reductionist model of behaviour online. In addition to participants' socio-biological make-up however, the interpretivist research moved beyond gender per se to indicate that cultural ideologies surrounding gendered behaviour were just as influential in determining participants' degree of identity exploration. Even with access to environmental structures like the action command for constructing innovative forms of identity online, some users still conformed to culturally stereotyped gender roles. Findings from the ethnography and in-depth interviews cautioned against limiting theorising about online behaviour to the quantitative window of investigation. The survey aimed only to test the researcher's hypothesis, which focused on whether male compared to female participants were more likely to explore identity boundaries online. [65]

While identity exploration was the focus of the research, members of the community under investigation were more concerned about constructing a stable sense of self consistent with their embodied reality. This discourse directly undermined the conception of chatrooms as forums to indulge in scintillating avenues for self-exploration through altering identities and transforming one's persona as held by the researcher. Indeed the survey questions, derived from the researcher's assumptions about online reality, were largely directed towards chatroom users' opportunities for identity exploration. [66]

Interviewees' emphasis on stability in identity may shed some light on why a majority of survey respondents, irrespective of gender, adopted a regular nickname consistent with their RL gender, while at the same time men were found to be more likely to explore aspects of their identity. The survey questions focused on identity exploration related to episodic occurrences of identity alteration as opposed to regularity in behavioural constructions per se. Discursive constructions suggested that while IRC users were able to justify the deception involved in episodic alterations in identity such as gender-switching, when it came to talking about their regular choice of identity deception resembled transgressions of the highest moral codes. Hence, while it may be acceptable to adopt an alternate identity for a brief period, constant discontinuity between one's virtual and corporeal identity may be considered less permissible. [67]

Convergence in findings across the research paradigms can be brought together via the concept of conventional identity practices. While IRC participants chose to maximise opportunities for altering identity, conventional conceptualisations of identity came to the fore. This extended from the emphasis on reproducing cultural stereotypes surrounding gendered behaviour, maintaining a nickname consistent with one's RL gender to the need for consistency between one's on and off-line persona. Further, interpretivist research was invaluable in offering an explanation of the findings in the quantitative survey. As well, the interpretivist

influence refined the theorising process by moving beyond the level of socio-
biological characteristics of the individual, to understanding online behaviour as a
product of the cultural ideologies of corporeal reality. [68]

To summarise, rather than purely providing a strategy for testing cross-validation
of theory, the findings afforded a breadth and depth of analysis in understanding
the experience of identity construction on IRC. Each study approached
knowledge production from its own situated reality, whether it was based on the
researcher's assumed reality or participants' constructions of that reality.
Positioning each knowledge practice within its own situated context enabled
platforms of reality to gain prominence, which incorporated the voices of those
under investigation. [69]

"Given its complexities and multiple facets ... [an] understanding of human nature
is likely to require more than one perspective and methodology" (REICHARDT &
RALLIS 1994, p.11). By deploying multiple epistemologies we gain a better
understanding of both the researcher's and participants' realities, including points
of similarity and divergence. A plurality of frameworks offers a more objective
means of understanding the complex and multifaceted nature of social behaviour
online. [70]

## Acknowledgements

## References

Baker, James (1994). Invisible wo / men. *The Net: Networking with Electronic Technology, 1*(7),
25-26.

Banister, Peter; Burman, Erica; Parker, Ian; Taylor, Maye & Tindall, Carol (1994). *Qualitative
methods in psychology: A research guide*. Buckingham, England: Open University Press.

Bowker, Natilene (2000). Journeying through IRC: A postmodern encounter? In Kris Knauer (Ed.),
*On the move: the net, the street and the community* [Online]. London: WriteOnLine. Available:
http://www.write-on-line.co.uk/pages/Books/irc.htm [Broken link, May 2002].

Boyd, Richard; Gasper, Philip & Trout, John D. (1991). *The philosophy of science*. Cambridge,
Massachusetts: MIT Press.

Bromberg, Heather (1996). Are MUDs communities? Identity, belonging and consciousness in
virtual worlds. In Rob Shields (Ed.), *Cultures of Internet: Virtual spaces, real histories, living bodies*
(pp.143-152). London: Sage.

Bruckman, Amy (1996a). Gender swapping on the Internet. In Peter Ludlow (Ed.), *High noon on the
electronic frontier: Conceptual issues in cyberspace* (pp.317-326). Cambridge, MA: MIT Press.

Bruckman, Amy (1996b). *Finding one's own in cyberspace* [Online]. Available:
http://web.mit.edu/afs/athena/org/t/techreview/www/articles/jan96/Bruckman.html [Broken link: May
2002].

Burman, Erica & Parker, Ian (Eds.). (1993). *Discourse analysis research: Repertoires and readings
of text in action*. London: Routledge.

Burr, Vivien (1995). *An introduction to social constructionism*. London: Routledge.

Campbell, Donald T. & Fiske, Donald W. (1959). Convergent and discriminant validation by the
multitrait-multimethod matrix. *Psychological Bulletin, 56*, 81-105.

Cardman, Elizabeth (1990). The gender gap in computer use: Implications for bibliographic instruction. *Research Strategies, 8*(3), 116-128.

Charmaz, Kathy (1995). Between positivism and postmodernism: Implications for methods. *Studies in Symbolic Interaction, 17*, 43-72.

Coffey, Amanda (1999). *The ethnographic self: Fieldwork and the representation of identity*. London: Sage.

Curtis, Pavel (1996). Mudding: Social Phenomena in text-based virtual realities. In Peter Ludlow (Ed.), *High noon on the electronic frontier: Conceptual issues in cyberspace* (pp.347-356). Cambridge, MA: MIT Press.

Denzin, Norman K. (1978). *The research act* (2nd ed.). NY: McGraw-Hill.

Dery, Mark (1993). Flame wars. *South Atlantic Quarterly, 92*(4), 559-568.

Dibbell, Julian (1993). *A rape in cyberspace: How an evil clown, a Haitian trickster spirit, two wizards, and a cast of dozens turned a database into a society* [Online]. Available at: http://www.levity.com/julian/bungle_vv.html [Broken link, FQS, August 2005].

Edwards, Paul (1990). The army and the microworld: Computers and the politics of gender identity. *Signs: Journal of Women in Culture and Society, 16*(1), 102-128.

Edwards, Derek & Potter, Jonathan (1992). *Discursive psychology*. London: Sage.

Emerson, Robert M. (Ed.) (1983). *Contemporary field research: A collection of readings*. Boston: Little Brown.

Fielding, Nigel G. & Fielding, Jane L. (1986). *Linking data*. Beverly Hills: Sage.

Firat, A. Fuat & Venkatesh, Alladi (1995). Liberatory postmodernism and the reenchantment of consumption. *Journal of Consumer Research, 22*, 239-267.

Flick, Uwe (1992). Triangulation revisited: Strategy of validation or alternative? *Journal for the Theory of Social Behaviour, 22*(2), 175-197.

Foster, Roxie (1997). Addressing epistemologic and practical issues in multimethod research: A procedure for conceptual triangulation. *Advances in Nursing Science, 20*(2), 1-12.

Garfinkel, Harold (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.

Gavey, Nicola (1989). Feminist poststructuralism and discourse analysis. *Psychology of Women Quarterly, 13*, 459-475.

Geertz, Clifford (1983). Thick description: Toward an interpretive theory of culture. In Robert M. Emerson (Ed.), *Contemporary field research: A collection of readings* (pp.37-59). Boston: Little Brown.

Gergen, Kenneth (1973). Social psychology as history. *Journal of Personality and Social Psychology, 26*, 309-320.

Gergen, Kenneth (1985). The social constructionist movement in modern psychology. *American Psychologist, 40*(3), 266-275.

Gergen, Kenneth (1997). Social psychology as social construction: the emerging vision. In Craig McGarty & S. Alexander Haslam (Eds.), *The message of social psychology* (pp.113-128). Cornwall: Blackwell.

Gersch, Beate (1998). Gender at the crossroads: The Internet as cultural text. *Journal of Communication Inquiry, 23*(3), 306-322.

Glasser, Perry (1995, September/October). Love, sex & power on the cyber frontier. *The North American Review, 280*(5), 44-49.

Godwin, Mike (1996). Foreword. In Peter Ludlow (Ed.), *High noon on the electronic frontier: Conceptual issues in cyberspace* (pp.xiii-xvii). Cambridge, Mass.: MIT Press.

Graham, Elspeth (1992). Postmodernism and paradox. In Joe Doherty, Elspeth Graham & Mo Malek (Eds.), *Postmodernism and the social sciences* (pp.196-211). London: Macmillan Academic and Professional.

Hall, Kira (1996). Cyberfeminism. In Susan C. Herring (Ed.), *Computer-mediated communication: Linguistic, social and cross-cultural perspectives* (pp.147-172). Amsterdam, Philadelphia: Benjamins.

Hammersley, Martyn & Atkinson, Paul (1983). *Ethnography—principles in practice*. London: Tavistock.

Haraway, Donna (1991). A cyborg manifesto: Science, technology, and socialist-feminism in the late twentieth century. In Donna Haraway (Ed.), *Simians, cyborgs and women: The reinvention of nature* (pp.149-181). NY: Routledge.

Harding, Sandra (1986). *The science question in feminism*. Ithaca: Cornell University Press.

Harre, Rom (1981). The positivist-empiricist approach and its alternative. In Peter Reason & John Rowan (Eds.), *Human inquiry: A sourcebook of new paradigm research* (pp.3-17). Chichester, England: J. Wiley.

Herring, Susan (1992). *Gender and participation in computer-mediated linguistic discourse*. Washington DC: ERIC Clearinghouse on Language and Linguistics, Document no. ED345552.

Herring, Susan (1994a). *Gender differences in computer-mediated communication: Bringing familiar baggage to the new frontier* [On-line]. Keynote talk presented at the American Library Association Annual Convention, Miami. Available: http://www.cpsr.org/cpsr/gender/herring.txt.

Herring, Susan (1994b). Politeness in computer culture: Why women thank and men flame. In Mary Bucholtz, Anita Liang & Laurel Sutton (Eds.), *Communicating in, through, and across cultures: Proceedings of the third Berkeley women and language conference* (pp.278-294). CA: Berkeley Women and Language Group.

Herring, Susan (1996a). Posting in a different voice: Gender and ethics in CMC. In Charles Ess (Ed.), *Philosophical perspectives on computer-mediated communication* (pp.115-145). Albany, NY: State University of New York Press.

Herring, Susan (1996b). Gender and democracy in computer-mediated communication. In Rob Kling (Ed.), *Computerization and controversy* (2nd ed., pp.476-489). NY: Academic Press. Reprinted from The Electronic Journal of Communication, [On-line] 3(2). Available: http://www.cios.org/getfile\HERRING_V3N293.

Herring, Susan; Johnson, Deborah & DiBenedetto, Tamra (1992). Participation in electronic discourse in a 'feminist' field. In Mary Bucholtz, Kira Hall & Birch Moonwomon (Eds.), *Locating power: Proceeding of the second Berkeley women and language conference* (pp.250-262). Berkeley, CA: Berkeley Women and Language Group.

Herring, Susan; Johnson, Deborah & DiBenedetto, Tamra (1995). "This discussion is going too far!": Male resistance to female participation on the Internet. In Kira Hall & Mary Bucholtz (Eds.), *Gender articulated: Language and the socially constructed self* (pp.67-120). NY: Routledge.

Hughes, John (1990). *The philosophy of social research* (2nd ed.). London: Longman.

Jick, Todd D. (1983). Mixing qualitative and quantitative methods: Triangulation in action. In John van Maanen (Ed.), *Qualitative Methodology* (pp.135-148). Beverly Hills: Sage.

Kendall, Lori (1996). I hardly know'er!: Adventures of a feminist MUDer. In Lynn Cherny & Elizabeth R. Weise (Eds.), *Wired women* (pp.207-223). Seattle, WA: Seal Press.

Kvale, Steinar (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Lyon, David (1994). *Postmodernity*. Bristol: Open University Press.

McCormick, Naomi B. & Leonard, John (1996). Gender and sexuality in the cyberspace frontier. *Women and Therapy, 19*(4), 109-119.

Perry, Ruth & Greber, Lisa (1990). Women and computers: An introduction. *Signs: Journal of Women in Culture and Society, 16*(1), 74-101.

Pioch, Nicolas (1993). *A short IRC primer* (1.2 edition) [Online]. Available: http://www.irchelp.org/irchelp/ircprimer.html (broken link, FQS, May 2003).

Plant, Sadie (1996). On the matrix: Cyberfeminist simulations. In Rob Shields (Ed.), *Cultures of the Internet: Virtual spaces, real histories, living bodies* (pp.170-183). London: Sage.

Pomeroy, David (1996, March). My secret life as a women on Internet Relay Chat. *New Zealand PC World, 81*, 114-115.

Potter, Jonathan & Wetherell, Margaret (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. London: Sage.

Potter, Jonathan & Wetherell, Margaret (1995). Discourse analysis. In Jonathan Smith, Rom Harre & Luk Van Langenhove (Eds.), *Rethinking methods in psychology* (pp.80-92). London: Sage.

Reason, Peter & Rowan, John (Eds.) (1981). *Human inquiry: A sourcebook of new paradigm research*. Chichester, England: J. Wiley.

Reichardt Charles S. & Rallis, Sharon F. (1994). Qualitative and quantitative inquiries are not incompatible: A call for a new partnership. In Charles S. Reichardt & Sharon F. Rallis (Eds.), *The qualitative-quantitative debate: New perspectives* (pp.5-12). San Francisco: Jossey-Bass.

Reid, Elizabeth (1991). *Electropolis: Communication and community on Internet Relay Chat* [Online]. Unpublished honour's thesis, University of Melbourne, Australia. Available: http://www.ee.mu.oz.au/papers/emr/electropolis.html [**Broken Link, October 10, 2001**].

Rheingold, Howard (1993). *The virtual community: Homesteading on the electronic frontier*. Reading, MA: Addison-Wesley.

Serpentelli, Jill (1993). *Conversational structure and personality correlates of electronic communication* [On-line]. Available: http://www.usyd.edu.au/su/social/papers/serp1.txt [Broken link, May 2002].

Shields, Robert (1992). Social sciences and postmodern spatialisations: Jameson's aesthetic of cognitive mapping. In Joe Doherty, Elspeth Graham & Mo Malek (Eds.), *Postmodernism and the social sciences* (pp.39-56). London: Macmillan Academic and Professional.

Shotter, John & Gergen, Kenneth (Eds.) (1994). *Texts of identity*. London: Sage.

Silverman, David (1985). *Qualitative methodology and sociology*. Aldershot: Gower.

Smith, Herman W. (1975). *Strategies of social research: The methodological imagination*. Englewood Cliffs, NJ: Prentice-Hall.

Spender, Dale (1995). *Nattering on the net: Women, power and cyberspace*. Melbourne, Victoria: Spinifex Press.

Stainton-Rogers, Rex; Stenner, Paul; Gleeson, Kathy & Stainton-Rogers, Wendy (1995). *Social psychology: A critical agenda*. Cambridge: Polity Press.

Suler, John (April, 1999). Do boys just wanna have fun? Gender-switching in cyberspace. In *The psychology of cyberspace* [On-line]. Available: http://www.rider.edu/users/suler/psycyber/genderswap.html.

Turkle, Sherry (1988). Computational reticence: Why women fear the intimate machine. In Chris Kramarae (Ed.), *Technology and women's voices: Keeping in touch* (pp.41-61). NY: Routledge.

Turkle, Sherry (1995). *Life on the screen: Identity in the age of the Internet*. NY: Simon & Schuster.

Turkle, Sherry (1996). Parallel lives: working on identity in virtual space. In Debra Grodin & Thomas Lindlof (Eds.), *Constructing the self in a mediated world* (pp.156-175). Thousand Oaks, Calif.: Sage.

Turkle, Sherry (1998). Computational technologies and images of the self. *Social Research, 64*(3), 1093-1112.

Turkle, Sherry & Papert, Seymour (1990). Epistemological pluralism: Styles and voices within the computer culture. *Signs: Journal of Women in Culture and Society, 16*(1), 128-157.

Van der Leun, Gerard (1995, Spring). Twilight zone of the id. *Time, 145*(12), 36-37.

Van Gelder, Lindsay (1991). The strange case of the electronic lover. In Charles Dunlop & Rob Kling (Eds.), *Computerization and controversy: Value conflicts and social choices* (2nd ed., pp.364-375). Boston: Academic Press.

Wylie, Margie (1995). No place for women: Internet is flawed model for the Infobahn. *Digital Media, 4*(8), 3-6.

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## Citation