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In cyberspace all they see is your words : a review of the relationship between body, behaviour and identity drawn from the sociology of knowledge

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# In cyberspace all they see is your words

In cyberspace  
they see your  
words

## A review of the relationship between body, behavior and identity drawn from the sociology of knowledge

147

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### Introduction

In recent years much has been written about how cyberspace (Coyne, 1995; Introna and Whitley, 1996), and computer-mediated communication more generally, offers new possibilities for playing with identity (Erickson, 1996; Kling, 1996; Poster, 1990; Slouka, 1995; Stone, 1995; Turkle, 1996b; Wynn and Katz, 1997). This paper will attempt to evaluate these claims. It will do this in relation to the ongoing debate about embodiment and information systems (Mingers, 1996) and within a historical perspective of technology (Hughes, 1983; MacKenzie, 1993, 1996; MacKenzie and Wajcman, 1985). Its theoretical foundations are drawn from work on the sociologies of science, scientific knowledge and technology (Bijker, 1995; Bijker *et al.* 1987; Latour, 1987, 1993, 1996; Law, 1991; MacKenzie, 1993, 1996; MacKenzie and Wajcman, 1985). Particular use will be made of the understanding of the social nature of knowledge developed by Collins (1990, 1992) and Collins and Pinch (1993).

This paper addresses the claims made by people like Turkle (1996b) who argues that in cyberspace:

[Y]ou can just be whoever you want really, whoever you have the capacity to be. You don't have to worry about the slots other people put you in as much. It's easier to change the way people perceive you, because all they've got is what you show them. They don't look at your body and make assumptions. They don't hear your accent and make assumptions. All they see is your words (p. 158).

In a similar manner Stone (1995) suggests that

[T]here is a subtext here, which has to do with what I have been calling the on-line persona. Of course we all change personae all the time, to suit the social occasion, although with on-line

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personae the act is more purposeful. Nevertheless, the societal imperative with which we have been raised is that there is one primary persona, or "true identity", and that in the off-line world – the "real world" – *this persona is firmly attached to a single physical body*, by which our existence as a social being is authorized and in which it is grounded (pp. 72-3, emphasis added).

This paper will argue that the argument that Stone, Turkle and others rely on is flawed. It is flawed because they are making two claims when only one can be supported. In cyberspace, they argue, all physical, bodily cues are removed from communication. They also claim that computer-mediated communication is unique in removing these cues from communication, a claim which we will see is incorrect. They rightly argue that in such mediated situations our interactions are different because they are not subject to the biases that arise from our physical appearance and to many this may indeed be a liberating experience. The problem with their argument, however, arises at the next step. Having entered a situation where the basis of the communication has been altered, they then claim that it is straightforward to create different identities. Since "all they see is your words", all that is required to become a different person is to use a different set of words.

For their argument to succeed it has to be shown that choosing the words for a different identity is unproblematic. Unfortunately this paper will show that the choice of words is not something that can be learned in a formal manner; rather the choice of words is the result of a process of socialization associated with a particular identity. It is therefore very difficult to learn a new identity without being socialized into that role. It may be possible to make a passable attempt at mimicking the identity, but such mimicry is limited and is not the same as creating a viable, permanent new identity.

The structure of the paper is as follows. The next section explores the claims that the internet is the first technology that allows such experimentation with identity. The paper then reviews the role that bodies have played in information systems. This is followed by a consideration of the creation of identity suggesting that a persona comprises a physical and a normative behavioral component. This distinction is then used to clarify the role of socialized learning for the behavioral component of persona and a method for exploring this component is then described. Next follows a case study which is used to evaluate the claims of the model. The paper ends with a review of the lessons learned.

### **A little history**

The sociologist of technology, Donald MacKenzie, notes that "[T]hose of us who research social processes are seldom able to set up our own experiments. We have to wait for the world to do it for us. The passage of time, and changes it brings in the factors and phenomena that interest us, are our single best resource" (MacKenzie, 1993, p. 7). Since this paper is exploring one such social process, it is therefore appropriate at this time to consider a little history which will show that the notion of regular communication which does not rely on

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physical presence has arisen a number of times before the emergence of the Internet and other forms of computer-mediated communication.

Poster (1990) claims that with computer-mediated communication “[F]or the first time individuals emerge in telecommunications with other individuals, often on an enduring basis, without considerations that derive from the presence to the partner of their body, their voice, their sex, many of the markings of their personal history” (p. 117, emphasis added). While the physiognomical focus is apparent here, Poster is also claiming that this is something new, something different to “face-to-face interactions, mail and the telephone” (p. 117).

The role of the body is clearly important in face-to-face communication and removing the body from the interaction can help change the basis of the interaction, but have not other technologies, like the letter and the telephone, done similar things?

#### *The postal service*

Presumably Poster’s comparison to the postal service is based on current postal practices whereby the mail is delivered once, perhaps twice per day. With this level of service the range of communication practices available is quite limited. It was not always like this, however.

Lewins (1865) reports that in London there were hourly deliveries of letters within Central London (pp. 234-5), starting at 7.30 a.m. (Daunton, 1985, pp. 44-6). It was only after World War I, with the subsequent changes in employment patterns, that the number of deliveries fell (although in 1919 London still had seven to eight deliveries every day).

The levels of interaction that such a mail service allowed are similar to those provided by current computer-based systems (especially if one considers electronic mail between geographically dispersed locations (Stoll, 1995)). Thus letters, which can hide the physical identity of the sender, could be exchanged at a similar rate to that which is currently possible with many electronic mail systems and yet there were no claims that the postal service would allow people to play with their identity in the way they can apparently do in cyberspace.

#### *The telephone*

Although the telegraph has an interesting history as well (it was the first technology to separate communication from transportation, with telegraph lines being laid across to the west coast of America before the railroad had reached there (Carey, 1988)) the involvement of the telegraph operator as an intermediary meant that the scope for playing with identities was rather limited with the telegraph.

The telephone, however, did not have the inconvenience of having to deal (face-to-face) with the operator and resulted in many new behaviors (Marvin, 1988). “A young man could catch a girl unchaperoned, perhaps in her boudoir, or at least in a hall where her parents could hear only one side of a passionate conversation. Exercising his imagination on her surroundings, he could pour

In cyberspace  
they see your  
words

forth endearments from a call box for a few pence, feeding in more to demonstrate his attachment yet still paying a small price for being together, a price that he could afford several times a day” (Young, 1991, p. 114). Indeed, the “[F]requency of calling as well as the words that were breathed, with all the appropriate intonations, brought home the ardour of the relationship” (p. 114).

There is even empirical research which suggests that the telephone offered the kinds of advantages described by Poster. Singer (1981) claims to have examined “for the first time some of the social dimensions of concern with respect to the ubiquitous instrument, the telephone” (p. 1). The results of this survey, which appears to have been undertaken in the late 1960s or early 1970s, include one respondent who felt that “it was to his advantage to use the telephone as there are no individual differences with respect to physical appearance, dress, status, or ability over the phone. He can put people on the same level as himself”. He therefore “feels more effective and more at ease in interaction by telephone” (Singer, 1981, p. 73).

Moreover, “the telephone as a semi-anonymous form of communication is considered advantageous in a number of instances. For example, judgements regarding the caller are based entirely on the content of the interaction and are not influenced by the physical appearance, mannerisms, or dress of the caller. In this respect, the telephone can be regarded as an equalizer or in some circumstances as a disguise” (Singer, 1981, p. 74-5).

### **Embodiment**

One of the key features of playing with identity seems to be related to the role that the body plays in human affairs and interactions, so it is appropriate here to review the role of the body in relation to computer-based information systems. Early work in artificial intelligence had an overwhelming tendency to dismiss the body as nothing more than a convenient, mobile container for the information-processing brain. Intelligence, and hence what was to be implemented in the computer system, was nothing more than symbol processing (Boden, 1987). Intelligence, it was claimed, was independent of bodily form.

Even the later work on expert systems eschewed the need for bodies. For example, Feigenbaum and McCorduck (1983) spoke of individual computer scientists working with individual experts “to explicate the experts’ heuristics – to mine those jewels of knowledge out of their heads one by one” (p. 80), a metaphor of mining shared with Capper and Susskind (1988). Indeed, Michie and Johnston (1984) took this idea of being able to take knowledge from the body of the person further and could “foresee a whole industry arising to tackle the job (of developing expert systems), based around a novel type of industrial plant, the ‘knowledge refinery’, which would take in specialist knowledge in its existing form and debug it, pull it together, carry out creative gap-filling wherever the need becomes evident, and turn out knowledge that is precise, tested and certified correct” (p. 132). Clearly the body did not play an important

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role in human action here, and was not needed when developing computer systems that acted like humans.

The artificial intelligence movement, however, had come under considerable criticism for its abandonment of bodies by the philosopher Hubert Dreyfus (1992). He argued, using the philosophy of Heidegger (1962), Polanyi (1966) and Wittgenstein (1956), that bodies played a vital role in human cognition and that humans were only capable of intelligent action because of their bodies. At the time Dreyfus' arguments were mostly ignored as irrational and extreme (Gunderson, 1985; Haugeland, 1985; McCorduck, 1979).

They did, however, have their influences. The most notable of these was probably on Terry Winograd. Winograd had belonged to the mainstream artificial intelligence group from MIT, and his SHRDLU system for natural language understanding was one of the most widely used examples in reviews of artificial intelligence (Boden, 1987; Gunderson, 1985; Haugeland, 1985; Lighthill, 1973; Michie and Johnston, 1984). Indeed, McCorduck's review of artificial intelligence has a photograph of Winograd in a debate with Dreyfus about the very possibility of artificial intelligence (McCorduck, 1979, p. 201).

In 1986, Terry Winograd, working with the Chilean Fernando Flores, published *Understanding Computers and Cognition*. This book marked his move from traditional symbol processing artificial intelligence to a more embodied form of intelligence which drew heavily on Heidegger's philosophy and the work of the biologist Maturana (Maturana and Varela, 1992). Thus Winograd had come to accept the importance of the body for intelligent action and from this point on, the role of the body has received a far higher prominence in relation to computer-based systems generally (Mingers, 1996).

### Identity

The previous section has reviewed some of the literature that emphasizes the importance of the body in human cognition and action. While the claims made about the body are important they do not justify many of the statements made by those who view cyberspace as a place where one can construct a new identity, present a new image of the self (Turkle, 1996b). A number of such claims are given below. It is important to note how many such claims are made, and the physiognomical bias in all of them. Furthermore, note how they make the flawed conceptual step from hiding physical characteristics to being able to create new identities.

Turkle (1996b) quotes one of the subjects in her study as saying:

You can just be whoever you want really, whoever you have the capacity to be. You don't have to worry about the slots other people put you in as much. It's easier to change the way people perceive you, *because all they've got is what you show them. They don't look at your body and make assumptions. They don't hear your accent and make assumptions. All they see is your words* (p. 158, emphasis added).

Her description of how you can be a new person in such situations also has a very pro-body bias, emphasizing what to her is the physical nature of identity:

In cyberspace  
they see your  
words

“the obese can be slender, the beautiful can be plain. The ‘nerdy’ can be elegant” (Turkle, 1996b, p. 158).

Poster (1990) similarly argues that:

(F)or the first time individuals emerge in telecommunications with other individuals, often on an enduring basis, *without considerations that derive from the presence to the partner of their body, their voice, their sex, many of the markings of their personal history* (p. 117, emphasis added).

Again, Slouka (1995) asks “what made cyberspace different? Simply this, social roles had always been bound and kept in check by the *constraints and limitations of the physical world*” (pp. 54-5, emphasis added) and “the physical aspect of life in the real world is an invaluable source of self-knowledge” (p. 119).

Van Gelder states that computer-mediated communication is:

dizzingly egalitarian, since the most important thing about oneself isn’t age, appearance, career success, health, race, gender, sexual preference, accent, or any of the other categories by which we normally judge each other, but one’s mind (Van-Gelder, 1996, p. 535).

Finally, Stone (1995) suggests that:

the societal imperative with which we have been raised is that there is one primary persona, or “true identity”, and that in the off-line world – the “real world” – this persona is firmly attached to a single physical body, by which our existence as a social being is authorized and in which it is grounded (pp. 72-3).

Many of the examples quoted above take advantage of the fact that the communication removes “gender cues” (Poster, 1990, p. 116) and then claim that this allows someone to be a person of the opposite sex (Slouka, 1995; Stone, 1995). But the pretence does not have to end there. This line of reasoning suggests that it would be possible to present a self that had different political, religious or scientific views, or even to present an image based on different bodily abilities (for example, for disabled people to be considered as able-bodied people and vice versa). Again we see the flawed logic of moving from the removal of physical cues to the claim that new identities can be created simply by changing the words that are uttered.

It should be noted at this point that this paper is not arguing against the beneficial, confidence building and often liberating results of being able to present oneself without being prejudged on the basis of physical characteristics, rather the paper is questioning the extent to which it is possible to create new identities simply by removing the physiological characteristics of the individuals concerned. It is questioning the role that socialization plays in shaping the norms of individuals and hence the ability to portray an identity that is not the result of socialization over a long period of time.

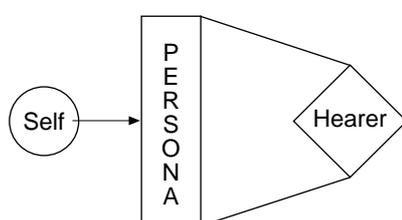
#### *Self and persona*

It might be useful at this stage to clarify more formally the role of the body and the utterances of an individual in the communicative process. For clarity, this paper uses the term self to describe that which is inherent in an individual. For some, the self is the fundamental basis of being, for others, the self has become

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fragmented (Poster, 1995). A persona, in contrast, is that aspect of the self that is perceived by others. The relationship between these two can best be shown diagrammatically; see Figure 1, which shows that the self creates a persona which is perceived by a “hearer”. For the purposes of these diagrams, it is assumed that a singular self does exist, although some of the authors under consideration suggest that the communications being studied cause us to reevaluate whether there is a single self, or even a self at all. The model is considerably simplified in that it is taken from the hearer’s perspective, so any feedback from the persona to the self is ignored.

In cyberspace  
they see your  
words

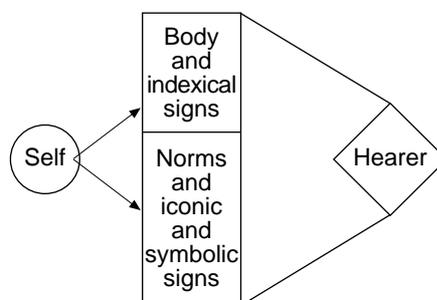


**Figure 1.**  
Self and persona

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The image an individual portrays is, in many cases, influenced by their bodily characteristics, since this is what the quotations considered previously suggest. But it would be reasonable to assume that the persona is more than just physical appearance and other indexical signs such as the sound of their voice and their handwriting. In particular, the persona is also likely to consist of the knowledge that an individual has, the norms and behaviors that the individual follows (Liebenau and Backhouse, 1990) and the understandings that the individual shows as well as other iconic and symbolic signs. That is, the perception of a person is made not only in terms of what they look like, but also in terms of what they say, think and do. This is shown in Figure 2, where the term “norms” is used to encompass the knowledge, norms, behaviors and understandings of the individual.

This model can now be used to show what happens when the communication becomes mediated and the body and other indexical signs are removed (see Figure 3). It also allows us to depict the basis of the claims made by Turkle *et al.* of being able to create multiple identities (see Figure 4). As the diagram shows,



**Figure 2.**  
Body and norms

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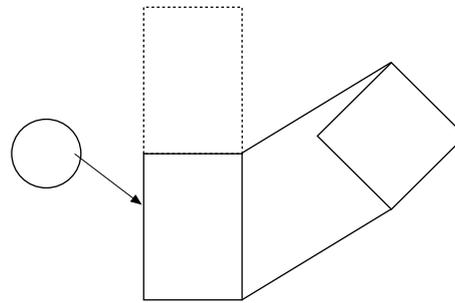
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they are arguing that, freed from the constraints of the body, it is possible to create a range of different personas for different “hearers” (even if they come from the same (hidden) bodily element).

**154**

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This model helps explain the flaw in the argument of Turkle *et al.* Can all the knowledge that an individual has, all the norms and behaviors that the individual follows and all the understandings that the individual shows be explicitly learned? This is what is implied by Turkle *et al.* If the norms cannot be learned in this way, then how is it possible to maintain different identities in the long term?

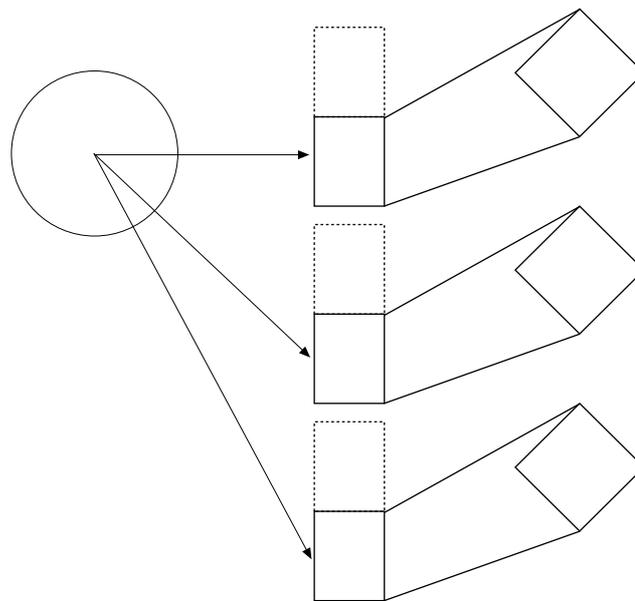


**Figure 3.**  
Mediated  
communication

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*Socialization*

Are the norms and behaviors of an individual specifiable? Can you teach someone how to act genuinely in a particular way, to act as a particular kind of person? The sociologist of scientific knowledge, Harry Collins, argues not. He is



**Figure 4.**  
Presenting many  
different personas

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concerned with what we know and how we come to know it. Much of his work has focussed on how scientific knowledge develops and he has often emphasized the role of scientific controversies in this process (Collins, 1990, 1992; Collins and Pinch, 1993).

Much of the knowledge of the scientists studied by Collins is tacit (i.e. things they know but cannot explain (Polanyi, 1966; Prosch, 1986) and much of this knowledge is learned by simply being around when particular scientific projects are undertaken, although explicit teaching and formal rules also play an important role (Collins, 1990, ch. 6). This knowledge is then learned in the form of "apprenticeship" (Cooley, 1987). As a result, attempts to replicate the explicit knowledge elsewhere often fail, (Collins, 1992; MacKenzie, 1996, ch. 10; Shapin and Schaffer, 1985, ch. VI).

For example, Collins describes the difficulty that certain scientists had in trying to replicate the design of a particular kind of laser (Collins, 1992). Despite following the (explicit) instructions given by the developers of the original laser many other sites were unable to replicate their work. One of the reasons for this, Collins discovered, was that they were using longer leads on their capacitors. This was not a part of the "design" but turned out to be a significant factor in the success or failure of the laser system. Moreover, those scientists who had worked at the original laboratory had tacitly picked up the practice of trimming capacitor leads to a short length, whereas scientists at other sites tended to keep the leads at their original, longer length.

Although Collins bases his model of socialized learning on his empirical studies of how scientists work, he argues that the model is more generally applicable. He argues that much of what it means to be human cannot be taught explicitly, and any attempt to do so will be incomplete with the explicit teaching only conveying part of what needs to be learned. It is not possible, for example, to teach someone how to tell a white lie on occasion; there are no rules for when to make a joke. Indeed, the characteristic skill for being a particular kind of person is knowing when to break the rule rather than when to follow it.

### **Evaluating this model**

The previous section has described a way of understanding the self that is presented by an individual in terms of the physical characteristics of the individual and the norms and behaviors of that individual. In electronically mediated communication the physical characteristics of the individual are hidden and so the norms come to dominate the persona presented. The paper then considered Collins' description of the role of socialization in the development of these norms. As a result, an individual who does not go through such a process of socialization should, according to this theory, not be able to present the same kind of image as someone who has done so. The unsocialized individual will lack those aspects of behavior that were tacitly taught. For example, a woman pretending to be a man should not, under this model, be as convincing as a man being a man.

How easy is it to spot such an imposter? In practice it is quite difficult because humans have an overwhelming tendency to compensate for mistakes on the part of other people. Think about any conversation you might have. If you listen to what you actually say, you will realize that you rarely utter complete, grammatically correct sentences and yet the people you communicate with understand you fully. They compensate for your performance in just the same way that you compensate for theirs; humans have an inbuilt tendency to make allowances and explain away minor discrepancies (Whitley, 1996).

If people make such allowances then it is hardly surprising that they do not spot discrepancies and false identities immediately. Indeed, the most famous computer-based test for false identities relies on this factor. The original Turing test (Turing, 1950) is not about a computer imitating a man but is in fact about a computer imitating a man imitating a woman. This distinction is important because in the 1950s, when Turing was devising his test, men and women led very separate lives and did not know as much about each other's ways of life as they do nowadays. This made the task of spotting the man imitating the woman far easier as the man was simply the one that didn't sound like a convincing woman (Collins, 1990, ch. 13).

#### *Refining the Turing test*

So what is needed to improve the Turing test? Collins (1990, ch. 13,14) proposes that the Turing test must be undertaken in circumstances where the tendency to compensate for the mistakes and limitations of conversational partners is minimized. The best way to do this is to have the judge actively looking for possible computers in the interaction.

If the judges are unaware that they may be dealing with responses coming from a machine, rather than from a human, then it is unlikely that they will suggest spontaneously that the output is coming from a machine, especially if they only have a limited interaction with it. Colby's survey of psychiatrists' analysis of the output of his Parry program (Colby 1975) should therefore be considered in this light. The psychiatrists suggested that the outputs were like those of a paranoid individual (rather than a computer) precisely because they were not expecting the outputs to come from a computer; they were only making comparisons between those of paranoid individuals and nonparanoid ones.

Thus it is important that the judges are aware that what they are dealing with may be a machine. This also helps explain why there is little benefit in trying to understand these issues in terms of acting and theatre because although the actors are attempting to create new identities they only succeed because of the willing participation of the audience who must suspend belief and forget that they are in a theatre or watching a film. Furthermore, the judges must be prepared to interact with the partner for a considerable period of time as the kinds of subtle clues that indicate whether the partner has the appropriate socialized knowledge or not may not arise immediately.

It is only when both situations arise – an active search for possible false identities combined with sufficient quantity of interaction to make the

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possibility of noticing problems a reasonable proposition – that a proper Turing test can be undertaken (Collins, 1990).

Turing, for one, did not think through these further conditions for his test; nor do the sponsors of the current implementations of his tests (Loebner, 1994; Platt, 1995; Shieber, 1994a, 1994b). Indeed Shieber's criticisms of the implementation of the test were not informed by Collins' criticisms (Shieber, 1994c).

In cyberspace  
they see your  
words

157

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#### *The Collins-Turing test in practice*

The revised version of the Turing test is an idealized experiment; indeed Collins presents it as part of a thought experiment. Trying to apply the principles behind it in practice, therefore, would be quite difficult (although see Collins (1996) for a more practical version of this test).

The test requires that the individual presenting the new identity does so over a long period of time and this may be difficult in an experiment – can individuals create genuinely false personas if they know that they are doing it for an experiment?

Similarly, the interrogator would have to spend a considerable amount of time communicating with a range of different individuals searching for zero, one or possibly many false identities. Again to do this would be problematic. Few people would want to communicate over a long period of time with someone who was always challenging their identity and suggesting that they were not who they said they were. And yet the protocol would require that they continued for otherwise the false identities would simply be those that continued with the interaction when all others had abandoned it.

The problems raised, however, are only problematic for new experiments that are specifically designed to test the hypothesis in this paper. It is always possible to interpret existing studies in the light of the explanations provided in this paper. Such a research method owes much to interpretivism (see, for example, Walsham, 1993, 1995) and hermeneutics (see, for example, Boland, 1987; Boland and Schultz, 1996; Introna, 1993).

Thus it is proposed to examine a case of the creation of false identity that is already reported in the literature. The existing materials will be used in two distinct ways. First, they will provide the basis for the description of the case presented in the next section. Second, the portrait of the situation provided will be reinterpreted in terms of the model of socialized knowledge presented above and quotations will be used to illustrate how closely the model clarifies the phenomena, as described by authors writing about the case.

#### **The case of the fake psychiatrist**

The example that will be used in this paper is that of the psychiatrist who presented a false image on the Internet. This study is presented both by Van Gelder (1996) and by Stone (1995) who chose to use different names for the individual concerned. In this paper Van Gelder's names will be used.

“Alex” was a prominent New York psychiatrist in his early 50s who logged on to CompuServe’s CB channel in late 1982. The CB channel is one in which it is possible to meet and chat electronically with a variety of people. One day, Alex was having a private conversation with someone on the channel and discovered that this woman thought that he too was female. In doing so, he noticed that she had opened up to him in ways in which he found women did not when they realized that he was a man.

Alex therefore decided to experiment with this false identity and whenever he came on to the network, he called himself Joan. “Joan”, however, was not able to meet the other people on the network (social interactions often followed from on-line meetings, even if only by telephone) because, as Joan told people, she had been horribly disfigured in a car accident that was the fault of a drunken driver. She had spent a year in hospital and still had problems speaking and walking. To “her”, the freedom to communicate electronically was truly liberating.

Over time, Joan made many friends on-line and told them about her daily activities. Despite her disability, Joan continued to do research as a psychiatrist and her papers were published and presented at academic conferences. At other times Joan would travel with police officers on night duty and would confront drunk drivers with the possible consequences of their actions. She fell in love with one of these police officers (Jack Carr) and they got married. Joan even sent postcards to her friends from her honeymoon and the various conferences she attended around the world.

Eventually, however, Joan’s false identity was discovered and she was confronted by her friends on CompuServe. Many of them felt bitterly betrayed by what had happened and, although some of Alex’s new friends stuck with him after this event, many others refused to talk to him again, even when he was being his true self (Stone, 1995; Van Gelder, 1996).

#### *How the false identity was discovered*

In order to understand how the false identity was discovered, this paper will use quotations from the papers by Van Gelder and Stone. As was described above, the quotations, which were written without an awareness of the model of socialized learning developed by Collins, can be seen to confirm what Collins’ theory proposes:

It was the disabled women on-line who figured it out first. “*Some things about her condition were very farfetched*”, says one. Says another woman: “*The husband, the accomplishments – it just didn’t ring true from the beginning*”. But her own hunch wasn’t that Joan was male or able-bodied; she suspected that she was in fact a disabled woman who was pretending to have a life of dazzling romances and success (Van Gelder, 1996, p. 542, emphasis added).

Laura ultimately confronted Joan on-line. She had already “cooled off” her relationship with Joan because of *all the inconsistencies in her persona*, but while she was suspicious, she had failed to suspect the enormity of the imposture. In February, however, she called another woman close to Joan, who told her she was convinced that Joan was a man (Van Gelder, 1996, p. 544, emphasis added)

A large amount of the distrust that began to surround Julie (Joan) originated in *the uncanny perfection* of her relationship with John (Jack). Lewin (Alex) had not taken into consideration the possibility of encountering a population of disabled persons on-line other than Julie (Joan), and has subsequently indicated that he might have modulated the Joan [*sic*] identity to allow for it. *The "real" disabled women on-line were more conscious of the incongruity than was chat system's general population*; under the circumstances, it is not strange that they viewed Julie's life first with joy and perhaps hope, then envy, and finally with deep suspicion (Stone, 1995, pp. 193-4, names used by Van Gelder and emphasis added).

These quotations support the model of socialized knowledge proposed by Collins. Both authors suggest that Alex's false identity was discovered by people who had been socialized in the role that Alex was pretending to play, namely that of a disabled woman. They came to be aware that Alex's life as Joan had "uncanny perfection", that it didn't "ring true". They noticed that there were "inconsistencies in her persona". These features were not spotted immediately, nor were they specific things. It was not that Joan had said X when a real disabled woman would have said Y. It was not even that Joan tended to say Z *q* per cent of the time whereas disabled women said Z *r* per cent of the time. What they spotted were problems with the overall story.

It is also interesting to note that despite noticing these things they did not immediately react to accuse Joan of not being whom she claimed. Instead, for a long time, Joan's inconsistencies were ignored and compensated for. On spotting the first thing that did not seem right they did not immediately cry foul and accuse her of being a man pretending to be a woman who was disabled. Even when the sense of unease was growing, her friends "only" thought she was a disabled woman who was exaggerating how happy her life was.

## Conclusions

### Summary

Many authors claim that the use of computer-mediated communication, as found on the Internet, offers for the first time a huge potential to allow people to play with their identities, to present electronic images of themselves that are not biased by the effects of physical appearance. Free from the constraints and expectations that the body imposes, such interaction makes it possible to play with a variety of different identities over a long period of time.

The paper began by reviewing the suggestion that computer technology is the first to allow such activities to occur and found historical evidence to suggest that similar forms of interaction with the potential for creating new identities could be found with postal services and the telephone. It then reviewed the role of the body in human behavior, especially when related to computing technology. From this it was seen that bodies play an important role in what it means to be human.

This role of the body, however, is not all that it means to be human and the paper then reviewed a number of authors who suggest that removing the body from communication will allow individuals the opportunity to change the personality that they present. The paper argued that this was the flawed step as removing the body from communication does not determine the norms used in communication.

These norms, it was suggested, were learned through socialization rather than through explicit teaching and, as the case demonstrated, it is extremely difficult to maintain an identity if the individual has not been socialized into that identity. The identity is not a matter of learning facts and rules, nor is it a matter of statistically determining the utterances that are appropriate at a particular time, it is not knowing what the rules are for saying certain things but knowing when to break the rules. Since rules do not contain conditions for their own application, this knowledge cannot be formalized; it can only be learned by being in the situation (Introna and Whitley, 1997).

#### *Practical concerns*

This paper has argued that it is not possible to create and maintain new identities simply by removing physical cues from the interaction. Without socialization the best that can be achieved is mimicry and mimicry will, in due course, be spotted, particularly by those who have been socialized into the role that is being impersonated.

In the short term, however, such limitations may not be spotted, particularly if the interactions are limited or occur over a short period of time. Most of us, when receiving an e-mail from someone claiming to be a male from the UK do not instinctively presume that it must in fact be coming from a female from Australia. We would only begin to suspect there was a problem if the interaction went on for a longer period of time and began to contain things that “didn’t ring true”, if there were inconsistencies in the persona.

Longer-term relationships, for example between colleagues in a virtual organization, do, however, open up the possibility for the mimic to be spotted, although the implications of discovering imposters are not clear cut. Would the actions of the fake be accepted as reasonable in the circumstances, particularly if the communications had been beneficial to all? Or would the communicative partners feel that they had been personally offended by the unethical behavior of their communicative partner who did not feel it appropriate to confide their false identity with them?

#### *Discussion*

Modern communications and computing technologies are changing the ways we interact as individuals in society. As we have seen in this paper, the use of mediated communication technologies changes the basis of the communicative process. The physical characteristics of the individuals involved in an interaction are no longer a significant factor in the interaction and this change provides opportunities for individuals to change the form of their interaction.

The effects of these changes can often be beneficial as they enable people to connect with strangers “without much of the social baggage that divides and alienates. Without visual cues about gender, age, ethnicity and social status, conversations open up in directions that otherwise might be avoided. Participants in these virtual communities often express themselves with little inhibition and dialogues flourish and develop quickly” (Poster, 1995, p. 35). But

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having open conversations is not the same as creating and maintaining a new identity, which, this paper has argued, is extremely difficult if you have not been socialized into that new role. Even Turkle supports this claim:

In cyberspace  
they see your  
words

For a man to play a woman on the streets of an American city, he would have to shave various parts of his body; wear makeup, perhaps a wig, a dress, and high heels; perhaps change his voice, walk, and mannerisms. He would have some anxiety about passing, and there might be even more anxiety about not passing, which would pose a risk of violence and possibly arrest. So more men are willing to give virtual cross-dressing a try. But once they are online as female, they soon find that maintaining this fiction is difficult. To pass as a woman for any length of time requires understanding how gender inflects speech, manner, the interpretation of experience. Women attempting to pass as men face the same challenge (Turkle, 1996a, p. 212).

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161

Modern technologies may be providing opportunities for new forms of communication and are allowing us to explore different aspects of ourselves but they are not mechanisms for overcoming the requirements of learning socialized knowledge and are not therefore an enabling mechanism for creating new identities.

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