DiagnosingTHE COMPUTER USER
ADDICTED, INFECTED OR TECHNOPHILIAC

We are living in a moment of computer-related identity crisis. We fashion ourselves as computers. We feel hardwired. We scan our memory banks and databases to access information. Gone are the days of the mechanical self with plumbing and tubes, sparking on all four cylinders. People have thought about themselves as machines before and now many of us think of ourselves as microcomputers on legs. We feel digital, though some parts of our bodies feel more digital than others (our brains for instance).

Addiction, infection, technophilia. While these terms often have a negative connotation, that is not the (only) way I will be using them. Rather, I invoke them because they each suggest a different relationship between the user and the computer. In an addictive relationship the user is separate from but dependent on their computer. With infection the user and computer are still separate but begin to mix vital bodily fluids and to merge their identities. With infection, the relationship between the user and the computer becomes more intertwined and requires a more complex scientific discourse to unravel its 'doubled helix' – the computer has become organic and exhibits the symptoms of viral infection. Technophilia goes one step forward (or backward) in time towards a cyborg moment where user and machine are one in a whirl of pleasure and power. With technophilia the user and computer have merged into a new, cyborg entity.

How did this computer-related identity crisis develop? How can we understand the computer user who is emerging from this crisis? The following analysis explores the variety of meanings related to what it is to be a computer user. The paper is in two parts. The first part is the diagnosis of the computer user's relationship to their computer. In the second part I will attempt to locate the computer's cultural meanings historically.

The Diagnosis: identifying the symptoms, prescribing the treatment

Diagnosis 1 – Addiction

In talking about addiction, the first step is to recognise the problem. It is comforting to know that this is happening in the computer world. Take for example the advertisement for a network-monitoring program which reckons 'If you're running an AppleTalk network, you know how life feels in the fast lane' where 'traffic levels surge out of control' (*Australian Macworld* October 1992, 12). Recognising you are 'out of control' is an important first step in identifying computer-related disease so you can make the moves necessary to get into the recovery lane. Listen also to the testimony of Alan Jones, editor of *Australian Macworld*:

> I'm a victim of a disease just waiting to be classified – addiction to speed. It first started back in 1989 when I went from a Mac Plus without a hard drive to an SE with 2Mb of RAM and a 20Mb hard drive. I'm sure you know the feeling – on startup the smiling Mac face flashes up on the monitor like a subliminal message, INIT's march across the screen at double time and the progress bar on the Copy dialogue box travels like the bullet out of a gun.
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> Then, as quickly as it starts, the feeling wears off ... The scroll bar slows to a crawl as we drag ourselves across a scanned image in a document. How quickly we begin to think of our new Mac as slow. When news comes that a faster Mac is just

over the horizon, the awful addiction begins to clamour for attention again (Jones 1992, 6).

So what happens after you have recognised the love of speed, with or without full military fanfare? You need to recognise a power greater than yourself. (Jones does, recognising that there is a higher power and that power is Apple.) Another part of this process is, naturally enough, regular attendance at a user group.

The formation of computer user groups around Australia is symptomatic of the vast extent of the addiction problem. 'Users' is a term widely associated with drug addicts. Here we clearly see the notion that using a computer is addictive. For those who are not able or ready to go to meetings, there is fortunately a burgeoning literature of self-help (such as *The Official Computer Widow's (and Widower's) Handbook* 1990) addressing related co-dependent problems.

Those users who have come together in user groups have recognised their powerlessness in the face of the computer and put their faith in a power greater than themselves – Apple. Their monthly group meditations on the latest computer products bring the necessary humility needed for each user to ask Apple to remove their shortcomings, through purchases. The users go forward from the meetings renewed and able to carry forth the message of Apple to the world of needy PC users.

Where, you might ask, does the addiction lie? Is the addiction about habitual and excessive need for speed, the confessed drug of choice for many computer users like Jones? Do users develop a sense that they cannot survive without it? Does speed become part of their identity, as some of the self-help books claim? (*The Official Computer Widow's (and Widower's) Handbook* 1990, 4-6). This would suggest that the addictive effects of the computer are more to do with speed than narcosis or hypnosis (though some users do claim to experience the effects of the latter). As with any addictive drug, the more you take, the more you need. The speed of computer use brings with it a fear of the abyss (loss of time-space orientation) that threatens to open at low speeds. (This is a classic case of the cause of the problem becoming the only 'solution' – the 'hair of the dog' syndrome.)

Another common trait of computer users is an addiction to the lingo of computers. This goes beyond the pleasure of language play that helps to bind the subculture of users together. The prominent symptom in these cases presents as an inability to refrain from computer metaphors, no matter how inappropriate or excessive they may be. Indeed, excess is pursued avidly. This goes beyond 'interfacing' with friends. Nor is it confined to management types who use technobabble to present their proposals as 'the rational output of the data they've accessed off their latest spreadsheet'. It extends to the groovers with laser chips on their shoulders, or to the *Mondo 2000* types with the cyber-baby T-shirts – 'How fast are you, how dense'. They are definitely more aesthetically exciting and sophisticated than the technobabblers, but they still exhibit the unmistakable symptoms of addiction.

What are the deep psychological causes of this addiction? I will define addiction as an obsessive need for a substance without which the personality begins to crumble. The substance offers a seeming escape from (bourgeois) individualism, whose demands for control, separation, imaginary wholeness and an autonomous self are experienced as painful and impossible. To drink compulsively, for instance, is to lose control, to let go, to get outside the self. Computer addiction also seems to take the user outside themselves – allowing them to merge with the computer, to move so fast that the separate, controlled self is left behind in a new realm of drunken ecstasy.

For some, the addiction can offer new and better ways to help shore up the painful and inadequate identity which is the subjective reality behind the cultural ideology of individualism. Computer addiction can promise to make up for a 'lack'. The computer operates as a sort of phallic fetish: the bigger your machine, the bigger you are; the bigger and harder the drive, the better you feel. As one female user put it, recalling the experience of telling some men in her user group about her new IIci, 'suddenly they treated me differently, like I had the biggest prick in the room'.

Perhaps the computer makes up for an absence in the self in the same way a love object does? This would explain those

computer users who think their computers are cute, want to buy them little outfits, a jaunty cap or something to make them feel warm and 'scuzzy'. There are even those who quack back to their computers or greet them when they arrive home – 'Hi honey I'm home. Quack, quack'. They project their emotions onto their computers in the fashion of an addictively obsessed lover.

Diagnosis 2 – Infection

To understand the computer user as infected is to enter a world where the computer embodies organic characteristics and dangers. It suffers from side effects and infections, and it transmits them. The computer and user are still separate, though they have begun to intertwine and exchange essential characteristics – they are both 'organic' and they can both infect and be infected. Here the computer no longer is the drug – it takes drugs. As the advertisement for an IBM laser printer says 'if they were any faster they would be tested for steroids'. Things are moving so fast that they have gone beyond 'feedback' (Virilio & Lotringer 1983, 30). The line between the user and the computer blurs.

Symptomatic of the widespread infection between computer users and their computers is the way that viruses now also strike the users, not just their machines. One user reported symptoms of a virus occurring regularly after extended use of the machine – the main symptom being a 'spaced out' feeling. While some users argue these are the disorienting effects of the computer's dangerous rays, what we are undoubtedly facing in these cases is computer infection.

Among those seeking an explanation of the epidemic of computer infections is cultural critic, Andrew Ross. Ross brings the computer virus under the microscope of his analysis and notes two important effects. Firstly, there is a windfall for software manufacturers of 'vaccinated workstations' and 'sterilised networks'. The second effect is to feed the privatisation bug that is infecting the basic democratic potential of information technology for 'processing, copying, replication and simulation' (Ross 1991, 111-112).

His analysis of media infection with the virus uncovers a connection between the AIDS virus and computer viruses. The media focus has been on high-risk personal contact:

obsession with defence, security and immunity; and the climate of suspicion generated around communitarian acts of sharing. The underlying moral imperative being this: you can't trust your best friend's software any more than you can trust his or her bodily fluids – safe software or no software at all! (Ross 1991, 108).

On the tail of such viruses ride a whole chain of signifiers: infection means threat of invasion by outsiders, sexual perverts and dirty, dangerous, different foreigners. (The conflation of 'wogs' as foreigners and wogs as germs in the Australian racist vernacular is significant here.) Such a grave threat is therefore seen to have an inbuilt need for 'protection' (Watney 1989; Singer 1989, 49-51; Treichler 1988). When the *Sydney Morning Herald* (5 October 1992) reported that some of the threatening computer viruses came from Soviet and Bulgarian virus factories, they were invoking the same Cool War danger-zone that also gave us the Russian flu a few years ago.

Ross sees the syndrome of computer users' fascination with infection growing out of an understanding of computers as living organisms, and grounded in an increasing use of biologically derived language (1991, 109). Maybe language is a virus after all? Certainly the prolific mutations of language (even around infection itself) is phenomenal, with virus vaccines, immunisations and defence systems appearing at an algorithmic rate. Here the language does more than bind addicted users into a subculture. It binds both user and machine together.

The use of language invoking the logic of defence and security systems is not innocent – it reveals computers as a biological weapon in the military arsenal, embodying military-scientific values (hierarchical, disciplined and technical ways of knowing and organising against a threat). According to such a logic, computers have emerged from boot camp to become the embodiment of the military-scientific complex. I am not just talking about the military as a source of the money behind the scientific developments of computers, which is certainly true. What I am interested in here is the military-scientific character of computer-user infection, which has deep links with the nature of both the military and modern Western science. The goal of both is

control. Both involve the instrumental rationality of separation (alienation) from the sensual, the qualitative; both refuse a connection to 'nature', which stands as the first enemy/other to be probed, dissected, detailed, manipulated, controlled, objectified, neutralised, conquered and distanced. The computers infected by military-scientific thinking embody the cultural, political and social relations of those institutions.

This rampant infection has been described by some users (in a sort of sci-fi/horror style) as scientific reasoning eating the ethical heart out of computers. Maverick computer scientist Morris Weizenbaum identified something similar decades ago. He saw this process as the reduction of technology to calculability and logic; the reduction of ethics to rule-bound morality; and the replacement of judgement by 'truth'. In this way, rationality (as logic and control) and 'truth' became linked in techno-thinking. This has resulted in a loss of responsibility and concern with contextual considerations. In other words, the ability to judge was replaced by calculation, and process was replaced by result (Weizenbaum 1976, 1-16). As a consequence computers are available to make bombs 'smarter' than the enemy and the operator. As demonstrated in the Gulf War and in the simulations of *Patriot Games*, computer warfare promises a battleground that is Western, clean, and technological, controlling and 'deleting' the dirty, chemical, threat of others (Arabs, Irish, etc). Perhaps the real has been infected by the simulacra. For as film critic Bill Nichols has suggested (following Jean Baudrillard), the real has become the simulation and the simulacra has become the basis for how we think the real:

> Star Wars will be the safe sex version of international conflict: not one drop of our enemy's perilous bodily fluids, none of their nuclear ejaculations, will come into contact with the free world (Nichols 1988, 36).

Nichols notes that this is a postmodern cybernetic logic where electronic simulation has replaced mechanical reproduction. In cultural terms this produces an addictive desire for the illusion of control rather than the desire for the fetishised object or image itself (1988, 33, 43). In the end, addiction itself has been infected.

Celeste Olalquiaga pictures a different, reversed version of this infection, but one that still fits into the scientific-military armoury. According to her, in the interchange where body and computer exchange their peculiar traits, the body becomes mechanised at the same rate as the technology is made human. Thus in her view, both body and computer become mechanical rather than both becoming organic (Olalquiaga 1992, 12).

Diagnosis 3 – Technophilia

The concept of technophilia is appropriate for users who are in touch with a different quality of their computer. They are intimately, alchemically in touch – not alienated by addictive obsession nor by the military-scientific mode of experiment, quantification, and technical mastery. Technophilia may present the appropriate diagnosis here – if we can grasp hold of it. It tends to elude us, occupying an ambiguous, dangerous, exciting place of potential that is difficult to analyse. It might look something like a *Thelma and Louise* version of *Sneakers*, if we can imagine that.

Technophilia goes one step further forward or backward in time toward a cyborg moment where self and machine are one in a whirl of pleasure and power. As a time-warping vision it can be either (or both) future and past – a return to a mythical future or a magical past before/after a scientific/technical creation of and separation from a world of 'nature'. Perhaps it is a world of 'infomagic' (to borrow a name from a local software company). Technophilia is elusive, without the hard-edged clarity of scientific vision. Located on the border between pleasure and danger, it is a fascinating, desirable and dangerous place to inhabit. 'Philia' – does it evoke love or devouring? It is an appropriately ambiguous and ambivalent concept for computer users who can slip at any moment from an exciting boundary state towards the abyss of either foolishly optimistic belief in or dangerously pessimistic refusals of technology, as cyborg idol Donna Haraway has identified (1987, 18-27, 35-36).

The technophile plays with such boundaries. The computer writer enjoys the creativity and flow of the unconscious, freed from logical constraints by the possibilities of cut, paste, copy and Command Z. Yet there are also dangers, such as saving compulsively for

the fear of loss and the terror of RAM. The computer artist has the opportunity to join the ranks of previously elite guilds that may have excluded them before on grounds of race, gender, ethnicity. The danger for the technophile artist, though, is that the computer gets too big for its boots – too expensive, for many.

If technophilia is so elusive, perhaps we can approach cyborgs more easily through our senses. Does technophilia involve a move beyond the alienated sensory limits of infection, which is still locked into a sadistic vision-centredness of the scientific/military paradigm? (Haraway 1989, 233). What does it feel and sound like to be in a cyborg relationship with your computer? Do you get pre-menstrual together? (I have known photocopiers to be pre-menstrual but they have been in a cyborg relationship with their users for a long time.)

The question of the auto-erotic cyborg emerges here. Is something disruptive and subversive happening sexually for the cyborg that differs, say, from computer sex in an infected or addicted relationship? During infected computer sex, the user has a (computer) 'handle', rather than a self with sex, gender, body and history. When addicted, the user maintains that gendered, sexed self but only to 'escape' into a sexual/love relationship with the computer. Both addicted and infected sexual relations between computer and user might have positive as well as negative sides (depending where you are located) but the auto-eroticism of the cyborg has no sides – it sits on a boundary. Here the phallic power of the machine does not objectify or represent the woman, nor does she need to objectify or master it. Rather, as cyborg she takes pleasure in her own power.

Locating the computer user – an historical interlude

Before writing this paper, I went through the inevitable process of trying to gather my thoughts, thinking it's all there in my mind, if only I could 'access' it. It occurred to me that before computers established their current cultural role as a major source of metaphors through which we shape our senses I thought differently. I used to think that if I read a lot and had enough sleep I would wake up with the paper all together. That was part

superstition, part experience. It also came from and expressed some belief in my unconscious self – *my* unconscious self, not my mind as computer. But times have changed and so has language and my unconscious.

My aim in this second part of the paper is to analyse these historical changes in time, space, and subjectivity in relation to computers. I want to focus on the ways that computers have affected subjectivity at several levels. Briefly, technology embodies social relations – including cultural, aesthetic, sexual, economic and political relations. These relations construct technology, giving it shape, content and power. Technology then perpetuates the very relations that constructed it. When people use or interact with technology, it is not culturally neutral; rather they engage with 'embodied' social relations which in turn (re)construct their subjectivity. Because technology is so powerfully determined and determining in culture, society, politics and economics, it is also particularly powerful at a meta-level of representation. Cultural values, fears and desires are easily projected onto technology. This is most evident in science fiction but it also has a very strong everyday aspect. Fears, fascinations, and desires about 'others' (women, non-Anglo races and ethnic groups) are easily projected onto technologies by dominant culture. Technologies then come to represent those same fears, fascinations and desires.

In order to examine the ways technology embodies and therefore transmits culture, perhaps we can draw a useful example from before the era of the computer. Historians have shown that during the process of industrialisation certain kinds of machines were invented and successfully developed because of the political (as much as economic) role they played. How industrialisation happened was not inevitable but varied from country to country. Once established, machinery embodied the relations that created it (Samuels 1977, 45-60). Machines that were brought in by managers and owners to control workers, transferred control from the workers to the managers, decreasing the workers' knowledge and producing a sense of alienation. The machine had the control and knowledge built into it. The Luddites knew

that there was nothing inherent in 'machines' or 'technology' in general, but that certain machines embodied particular economic and political relations that were not in their interests – they only smashed machines which had been developed in that way (Thompson 1968, 515-659).

'Control' has long been a politically significant dimension of the social relations embodied in technology. Today control is being maintained by computers specifically with regard to the use of information and surveillance systems. Olalquiaga (1992, 1-18) analyses the cultural dimensions of such control, suggesting that there is a pornographic dimension to surveillance-centred information/computer culture. Technological images become mirrors for identity, and the whole process in turn produces a fragment of the self. She argues that this 'fragmentation ... is compensated in the intensification of pornographic and painful pleasures'. Thus the 'need to gather and categorise information' involves some of the compulsive controlling procedures found in pornography – namely fragmentation (mutilating information so it fits a code), homogenisation (of the information into a predictable code or narrative), repetition (difference is reduced to variations on the same theme), apparent choice, and a voyeuristic control exercised digitally (Olalquiaga 1992, 13).

Information processing masks a 'controlling perversion of a voyeuristic type' that lies at the heart of surveillance (Olalquiaga 1992, 13). Surveillance and information processing also contribute to a sense of loss of control and identity by way of their dangerous fallibility. Incorrect data entry and malfunction can wipe an identity out of the computer and 'out of existence'. This can create a continuous state of self-doubt, hesitation, confusion – if you are not 'in the computer', you do not exist.

Something else is also happening at another level of all this surveillance and information processing. According to Olalquiaga (1992, 19-35), in postmodern culture simulation and obsessive repetition alter the individual's perceptions of space and time. The individual's basic sense of identity is disoriented. Although such change began long ago with the scientific capitalist

'revolutions', today they have moved into another dimension (Thompson 1967; Mumford 1986, 324-332; Virilio & Lotringer 1983, 45, 61, 98, 115). How is this experienced? How does a subjective sense of time and space change when information and data move instantaneously in ways that we as individuals never have and never could?

We are locked into decontextualised vision – losing the sense of seeing, hearing, smelling and feeling different places. Travel may broaden the mind; but as one computer user has put it, now the information gets to have all the fun. In an odd way the users are both more static and more mobile. It is not surprising that many are confronted with a certain disorientation and identity crisis. As our sense of time and space go through such major upheavals, it is not surprising that this has led to a fascination with speed that recalls the Russian futurism of the 1910s and '20s (which was also a period of social, political, economic, cultural and individual identity crisis). These crises were produced in part by the very technological changes that embodied all those relations (Kaplan 1986, 3-5, 26-30). In turn, as happens today, technology offered 'solutions' which varied and were of course contested.

One of the conservative 'solutions' to the sense that technology has led to a loss of control is to embrace and bolster shaken individualism. A striking development here can be found in psychology of neurolinguistic programming (NLP), which ties behaviourist psychology to computer lingo. According to NLP, problems can be solved either by long years of analysis, or by 'reprogramming', engaging the services of a highly paid professional who can do it for you. Surely it's more economically rational and efficient to make a withdrawal from your memory bank and deposit a new data set?

Because technology in general and computers in particular are such powerful embodiments of social relations, they are particularly susceptible to the projections of culture. In those cultures that construct a mind/body split, it is no surprise that the computer represents the mind and that the mind is experienced as a computer (through metaphors and language and imagery). This is epitomised by the approach of Artificial Intelligence (AI).

AI has changed the cultural (and therefore the personal) concept of mind. What is 'deleted' here is a sense of the mind as irrational, dreaming and unconscious (Sofoulis 1992, 21). But not all computer users succumb to such readings of the mind in computer-centric culture. Indeed, some alter the computer's mind rather than change their own. Take, for instance, a novice computer user who, each time she lost some data, spoke not about losing her material but about it disappearing into the computer's unconscious. Was this act of attributing an unconscious to the computer a move to make it more desirable by giving it an attribute she valued? Or perhaps it was her way of dealing with fears about the computer which she still needed to overcome?

Connections between the unconscious and computers make a lot of cultural sense according to Sherry Turkle, one of the pioneer researchers into computers and culture. The idea of the unconscious is, she argues, both culturally frightening and fascinating. The conscious self which was 'in control' is no longer. Not only does the unconscious play a role in individual actions and subjectivity, but to make things worse, it is obsessed with taboos such as sex and death. According to Turkle, people have responded to the idea of computers a bit like they did to the idea of the unconscious — with excitement and fear at the idea of being 'programmed' by forces outside themselves (1984, 290-305).

We could also ask whether the related category of 'memory' has changed with the advent of computers. Has memory become more quantitative and less creative? If memory is now an efficient calculation, and therefore something that a computer will always do 'better' than a person, how does that make people feel? Does it produce an alienation from the self and a subsequent desire for the machine as the solution to that alienation? When memory and knowledge are considered in terms of quantity, quick access and logic, rather than judgement, experience, context and practice, what does this say about a culture? What is intelligence worth if a computer is used to measure it?

At first glance AI seems like a quintessential statement of postmodernism: simulation is the same as reality; the image of an autonomous self is empty ideology (Turkle 1984, 290-305; Olalquiaga 1992, 5). But behind this apparently postmodern decentred subject of AI lies a very centred self who authored it – the old rational logical subject of science. It is a very convenient lie because this kind of self-denial avoids having to take individual responsibility, to have emotions, to engage in politics, or to recognise the significance of context (by denying its own agency).

Rather than ending with the impression that nothing has changed (which is only part of the story) I want to return to the ideas presented in the first part of this paper. We are living at a time of wide cultural crisis and political contestation over culture, with all the confusing, conflicting, and exciting subjective effects that go along with it (Olalquiaga 1992, xi-xxi). What positive political moves are available for the addicted, infected and technophile computer users? Perhaps the addict can accept an imperfect 'self' and the impossibility of control. They might enjoy their addiction to their computer as a recreational drug, as a love object or even as a fetish with phallic power (especially for women). Perhaps infected computer users can reject the military-scientific armoured embodiment of their computers and go with the organic flow. Perhaps they might find some sort of 'mad' perverse creativity in their mutual disease. The technophile cyborgs (especially those 'others'), can perhaps recognise the impossibility of ever avoiding culture (and all its subjective implications) by being disembodied, and take their pleasure in a re-embodied cyborg self. They can enjoy their cyborg selves with the possibility of finding different kinds of creativity and subjectivity.