CHANGING TECHNOLOGY

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Introduction

Technology is constantly changing. Society as we know it depends on this fact. That which we take for granted today would have been the stuff of science fiction as little as fifty years ago. In fifty years time, we will doubtless be excited, perturbed and baffled by yet more new developments. In the early years of the twenty first century, it is computers and the Internet that have captured the public imagination, and found their way into not just our working environments, but increasingly into our domestic spaces. This technology, produced outside the democratic process, is arguably changing the society in which we live, and with it, the social category of people we consider 'disabled'.

Some disabled people are finding ways to use Internet technology to their advantage - to access information and services, to affiliate with others, and to find new means of self expression and dissent. It seems though that recent developments are disempowering others yet further - many are unable to gain access to the technology, others find that its usage results in increased dependency and further isolation from mainstream society. Current trends are likely to present particular problems for certain segments of the disabled population, such as those with learning difficulties, those outside the world of paid employment, the growing number of older disabled people, and others who simply 'don't get on with computers' - a group including many who are not currently deemed disabled. Hence we may see increasing polarisation between the technological 'haves' and 'have-nots' in the disabled population. We may also witness shifts in the disabled category itself.

Many extravagant claims are made about technology's potential role in the lives of disabled people. The area though is lamentably under-researched. In the last throes of the twentieth century, I talked to disabled people about their experiences and opinions of this rapidly changing technology and about their hopes and fears for the future (Sheldon, 2001). These were 'ordinary' disabled people - largely unwaged, and many in older age groups. This chapter is rooted in their knowledge, and thus focuses on the use of computers and the Internet in non-work settings.

Disabled people's complicated relationship with technology will be briefly considered, before the crucial issue of access to technology is examined. The liberatory potential of Internet technology will then be evaluated in relation to two key areas - information and communication.

Changing technology and disabled people: Emancipation or oppression?

Technology is not neutral. It is created by the same oppressive society that turns those with impairments into disabled people. Whilst 'stamped with the desires and needs of the ruling class' however, at the same time, it is 'produced amidst conflicting social relations, and thus holds the possibility of being a tool for liberation as well as for social control' (Davis *et al.* 1997: 6). It is no surprise then that disabled people have a complicated relationship with technology. We are often excluded from mainstream technology, a factor said to have contributed to our current labour force exclusion and indeed, to the creation of the modern 'disability' category (Finkelstein, 1980; Oliver, 1990). At the same time we have become the recipients of an ever-growing business involved in developing and marketing technologies specifically for our ascribed needs. Many of us have been impaired as a direct result of modern technology. Others would not be alive today without it. *All* of us are now dependent upon it to satisfy even our most basic needs (Illich, 1973).

Every new technological breakthrough is inevitably hailed as a saviour for disabled people, as a way of minimising their 'deficits' and thus making them less dependent on other people. This despite the fact that dependency on others is a part of life for *everyone*, and may well be preferable to dependency on unreliable technology. Internet technology is capable of delivering a myriad of services directly into disabled people's homes, thus reducing the need to travel or rely on others for assistance. It is here that its main benefits are often assumed to lie. Disabled people however want *choice* in how they make contact with the world. Access to the latest technology, though regarded as increasingly necessary, was not considered the highest priority for the disabled research participants. Most considered the removal of more traditional disabling barriers to have greater urgency. This created concern amongst many that technology might be provided as a cost cutting exercise, reducing the need to make more meaningful social changes, and effectively segregating them in their own homes. There is a very real danger that disabled people could be further disadvantaged through such 'technical fixes', since with the increasing power of technological tools, you get a 'barring of alternatives' (Illich, 1973: 23). Many may find themselves more isolated than before then, and less capable of satisfying their needs in other ways. As one commentator suggests, this uncritical faith in technology, underpinned by an individual model of disability:

> is often reflected in laws, policies, institutional arrangements and social attitudes which privilege technological solutions to the problems faced by disabled people. (Gleeson, 1999: 99)

It is clear then that technological systems must never be pushed onto people as a sticking plaster solution to deeper social problems. It is also clear that this could easily happen in the current political climate.

It is suggested that a less over-optimistic analysis of technology's implications for disabled people would come from the disabled people's movement, which may be 'central to ensuring that technology is used to liberate rather than further oppress disabled people' (Oliver, 1990: 126). Many of those who embrace a social model of disability are equally enthusiastic about our future prospects however, claiming for example that with the appropriate technology we can become part of the 'main-stream of life' and 'contribute fully in society' (UPIAS, 1981: 1). Others though voice concerns that technology can be used in oppressive ways (Corker and French, 1999). There is a small but growing body of work within disability studies which emphasises technology's 'double-edged nature' (Oliver, 1990) and stresses that it can be 'both oppressive and emancipatory, depending on the social uses to which it is put' (Gleeson, 1999: 104). Similarly, the disabled people who participated in the research project identified a number of potential pitfalls and promises for disabled people which they associated with the increasing reliance on technology in today's world.

Access all areas?

Disabled people have long been denied access to the technology that others take for granted, and there is little evidence that this exclusion is dissipating. Despite this, the issue of access to technology is often obscured because of the undue emphasis placed on its *potential* for improving disabled people's lot (Roulstone, 1993). This is a particular concern since a new form of social segmentation is predicted between those with and without access to the new systems (Jouet and Coudray, 1991). The disabled people participating in the study were deeply concerned about access, revealing a number of barriers that stand in the way of disabled people's beneficial use of computers and the Internet.

Of these barriers, finance looms largest. Assistance to purchase computer equipment is currently limited to those disabled people in work or full-time education, a situation that must be challenged. The pace of change

itself presents a huge barrier to those with limited means. As one research participant explained: '*I want to have me own [computer], but you know… they're so expensive… And then you've got to keep up with it… they always say if you were to buy your computer you can always guarantee the next day it's out of date, so it's just costly updating it…*'

Disabled people want systems which they can use physically, they can understand, and are affordable. For many, these systems simply do not exist. Despite organisational rhetoric to the contrary, disabled people are not 'designed in' to products from the outset, making expensive add-ons necessary. Whilst it is true that certain gains have been made by the corporations that develop and market the new systems, it is unlikely that the free market will ever guarantee access for a relatively small social grouping with little disposable income. At present there is no effective regulation to ensure that corporations attend to the accessibility of the equipment they develop. This situation must be remedied as a matter of urgency.

We must not however be distracted into denying the socio-structural origins of the problem. Access to technology is *not* simply a technical issue with technical solutions. The inaccessibility of technology is just one more symptom of disabled people's continuing oppression. In Britain, the disabled people's movement has organised around the premise that no one aspect of the disablement of people with impairments should be treated in isolation (UPIAS, 1976). This approach suggests that as well as considering access to technology as a purely *technological* problem, other aspects of disabled people's technological exclusion from must also be considered - access to the wider world of employment, education, housing, transport, the built environment and so on. Equal access to the beneficial use of technology, can only be secured alongside the removal of these more traditional disabling barriers (Roulstone, 1998).

The fieldwork demonstrated that whilst a consideration of access is vital, it is not sufficient. We must not assume that all people want to use technology, or indeed, see any utility in doing so. The potential value of Internet technology for disabled people will now be considered in relation to just two crucial areas - information and communication. Here too however, the issue of access still looms large.

Hitching a ride on the information superhighway

> *I think [the Internet's] great - especially for disabled people. Look for information and you can get it no matter where it is.*

There was a lot of enthusiasm for the Internet's role in information provision. Surfing the net was a form of leisure activity for many, relieving the boredom of the resource centre, or their enforced isolation in the home. Those research participants able to use the Internet at a resource centre for disabled people, were particularly struck by the savings in travel, money and time that accessing information in this way could allow. Open access to information is considered vital for *all* in today's society. It is however a particular concern for disabled people, who are isolated by a variety of other barriers. Computers and the Internet can provide new ways for disabled people to obtain the information they need, in formats which are accessible to them. They also allow us to become our own experts, and take control of the information that we lack.

There is a growing body of information produced by and for disabled people available on the Internet, and for those with the technology, this is enabling access to hitherto undreamed of information. Without substantial changes though, 'easy access to the information that can really empower and liberate people still looks likely to be the preserve of an affluent minority' (Haywood, 1998: 26). Furthermore, in the current political climate, the increased use of Internet technology as a means of disseminating information may have an adverse effect on other means of information provision. The unconnected majority of disabled people may find that accessing information (and indeed other consumer goods) in traditional ways becomes even more problematic as these facilities become more available online. The Internet is not then the panacea that many suggest. There is still a need for appropriate and accessible information to be disseminated to disabled people in other ways, or the disabled community may simply become yet more polarised.

Even those *with* Internet access complained of difficulties in finding the right information: '*It's overwhelming sometimes*'. Discriminatory web design also creates major barriers which prevent disabled Internet users from accessing information. At present, the Internet is relatively unregulated, and policing it at a national level is problematic because of its global nature. For disabled people's unmet informational needs to be fully respected there must, at the very least, be appropriate legislation and regulation. As one research participant told me, laughing at the sound bite: '*information is a right not a privilege*'.

It's good to talk…

> *When you think of how many disabled people use electronic or whatever devices to communicate now, who it would have been assumed even fifty years ago or less than that, that those people had no capacity for communication... It's so important.*

The potential for otherwise isolated 'housebound people' to maintain and initiate friendships from their homes is one of the main advantages said to be gained from use of the Internet (Haywood, 1998). It is further suggested that disabled people, excluded from their geographic communities, might find themselves included in online communities - communities untainted by 'the contaminating effects of physicality, prejudgement, or prejudice' (Avery, 1998: 2). Many disabled people have little contact with others and live very isolated lives. In the absence of more meaningful social transformation, the Internet can provide another means of communicating and connecting with others, a means which circumvents many of the barriers to disabled people's mobility.

For some of the research participants, the Internet provided an essential link to the world, often giving a sense of community membership which they would have otherwise lacked. Several people were particularly enthusiastic about the possibilities for 'passing' as non-disabled that the Internet offers. Others however pointed out that since we all exist in a real world where such deception is not necessarily an option, the liberatory potential of passing in cyberspace may be somewhat limited. Furthermore, the potential still exists for Internet technology to be used as a 'technical fix'. One participant for example felt that the Internet actually exacerbated his isolation, providing a poor second best to actually *being* with people: *'Communication with another human being is summat that a machine ain't gonna compete with, and it can't compete with it no matter 'ow good that machine is'.*

Communication encompasses more than just interpersonal interaction however. Computers and the Internet offer the potential for disabled people to gain a political 'voice' and to organise collectively to improve their world. Another of the Internet's potentials is said to lie in its ability to advance the 'the interests of politically and socially disadvantaged groups' (Fitzpatrick, 2000: 386). Some even suggest that the growth of a world-wide disabled people's movement is 'evidence of the part which new technologies can play in facilitating the empowerment of disabled people' (Johnson and Moxon, 1998: 255). However, the proof for such claims remains elusive.

It is easy to find examples of disabled people coming together on the Internet to discuss for example disability research (disabilityresearch@mailbase.com), or disability politics and direct action (danmail@egroups.com). Whilst it is likely that such participation has an empowering effect on certain individuals who might otherwise be starved of such interaction, many disabled activists seem to 'have disappeared into the phone lines to discuss issues and share support' (Cunningham, 2000: 11). The implications of this for the disabled community as a whole are debatable. How far any of this networking will translate into material gains in the real world is also unclear. The Internet's success as a political tool cannot be measured by the number of web sites or discussion lists. Instead, we must look to the effects produced outside cyberspace. If and how these effects will be manifested remains to be seen. It is vital however for activists within the disabled people's movement to use any means at their disposal to make a better world, and perhaps the Internet will become an important tool in this process.

Conclusion

Being part of the mainstream of society currently entails keeping up with that society's changing technology, something that is not possible for many disabled people, or indeed for many of their non-disabled peers. The disabled community risks becoming more polarised as the technological 'haves' leave their less fortunate contemporaries behind. The boundaries of the 'disabled' category may even be redrawn in the future. Whilst this might be liberating for some currently disabled people, those disabled by the society of the future will not be so enthusiastic. We cannot then assume that the 'problem' of disability will be solved with each new technological innovation. Instead, we need to transform society - the society that created the Internet, the society that oppresses. Nonetheless, the latest Internet technology also offers great potential for disabled people's self-emancipation, enabling access to essential information, and providing new means to affiliate and express dissatisfaction with the world. It remains to be seen however whether the increasing use of such technology by a disabled elite will facilitate the emergence of effective new strategies for improving that world for everyone.

References

AVERY, D. (1998) Electronic parenting or, it takes a (listserv) village to raise families with disabilities, *CMC Magazine*, January: 1-11, http://www.december.com/cmc/mag/1998/jan/avery.html

CORKER, M. & FRENCH, S. (1999) Reclaiming discourse in disability studies, in: CORKER, M. & FRENCH, S. (eds) *Disability Discourse*, Buckingham: Open University Press.

CUNNINGHAM, A. (2000) Where have all the activists gone?, *Coalition*, October: 8-12.

DAVIS, J., HIRSCHL, T. A. & STACK, M. (1997) Introduction: Integrated circuits, circuits of capital, and revolutionary change, in: DAVIS, J., HIRSCHL, T. A. & STACK, M. (eds) *Cutting Edge: Technology, Information, Capitalism and Social Revolution*, London: Verso.

FINKELSTEIN, V. (1980) *Attitudes and Disabled People*, New York: World Rehabilitation Fund.

FITZPATRICK, T. (2000) Critical cyberpolicy: network technologies, massless citizens, virtual rights, *Critical Social Policy*, 20 (3): 375-407.

GLEESON, B. (1999) Can technology overcome the disabling city?, in: BUTLER, R. & PARR, H. (eds) *Mind and Body Spaces: Geographies of Illness, Impairment and Disability*, London: Routledge.

HAYWOOD, T. (1998) Global networks and the myth of equality: Trickle down or trickle away?, in: LOADER, B. D. (ed) *Cyberspace Divide: Equality, Agency and Policy in the Information Society*, London: Routledge.

ILLICH, I. D. (1973) *Tools for Conviviality*, London: Calder & Boyars.

JOUET, J. & COUDRAY, S. (1991) *New Communications Technologies: Research Trends. Reports and Papers on Mass Communication. No. 105*, Paris: UNESCO.

JOHNSON, L. & MOXON, E. (1998) In whose service? Technology, care and disabled people: the case for a disability politics perspective, *Disability and Society*, Vol. 13 (2): 241-258.

OLIVER, M. (1990) *The Politics of Disablement*, London: Macmillan.

ROULSTONE, A. (1993) Access to new technology in the employment of disabled people, in: SWAIN, J., FINKELSTEIN, V., FRENCH, S. & OLIVER, M. (eds) *Disabling Barriers - Enabling Environments*, London: Sage in association with the Open University.

ROULSTONE, A. (1998) *Enabling Technology: Disabled People, Work and New Technology*, Buckingham: Open University Press.

SHELDON, A. (2001) *Disabled People and Communication Systems in the Twenty First Century*, PhD Thesis, Leeds: University of Leeds.

UPIAS (1976) *Fundamental Principles of Disability*, London: Union of the Physically Impaired Against Segregation.

UPIAS (1981) *Policy Statement*, London: Union of the Physically Impaired Against Segregation.