

De-tooling Technology: networked computing as an environment, purpose and medium for social action

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Abstract

Network technologies are very desirable for social action, allowing activists to achieve more with less, more quickly and with broader impact; on the other hand, the very advantages they bring are equally important to the world of contemporary capitalism that social action seeks to change. Thus, we must look beyond network technologies as the easy solution to every problem, and focus instead on the human relationships which might be enabled by them. This focus on relationships requires us to 'de-tool' information technology. Instead, for social action, it is more valuable to think of networked computing as part of the environment within which action can occur; an important purpose for such action; and as a medium that nurtures expression and engagement of self and belief.

Introduction

This paper attempts to sketch the basis for a way of thinking about the role of networked computing technologies such as the Internet for people who are involved in promoting, carrying out or supporting social action to address inequalities and disadvantage in the contemporary world. I begin with a contrast between the value that activists can extract from networked computing and the fact that such acts of value-extraction are part of the systemic logic of capitalism against which social action is often competing. This contrast alerts us to the need to look beyond network technologies as the easy solution to every problem, and focus instead on the human relationships which might be enabled by them, but for which technology never completely accounts. This focus on relationships requires us to 'de-tool' information technology: to think of it as something other than a fix for problems to be picked up and put down at will. Rather, it is more valuable to think of networked computing as part of the *environment* within which social action can occur; often an important *purpose* for social action; and as a *medium* that nurtures expression and engagement of self and belief. Ultimately, there is only a fine line between exploiting technology and exploiting people: social action in a network society can avoid stepping over this line by recognising the symbiosis of people and computers that together enables us to work productively for change and development.

First of all, how do I understand social action? It is a multi-dimensional field of activity, involving the engagement of both individuals and groups in campaigns for social justice across many different causes. Social action's determining features are the value placed on systemic change (for society as a whole) through the actions of groups – however constituted – of like-minded individuals (social formations). Moreover, while the kind and extent of action is varied, it always involves an active engagement with the problems of the day and their likely solutions: *action* matters, not just the identification of the problem, in pursuit of justice for those at risk, disadvantaged or otherwise less able to participate in society than the norms and conventions of that society assume. While action in pursuit of social justice is not new – having been the mainspring of many of the most significant political movements of the past two centuries at least, it now operates under more distributed, localised and fragmented conditions. The more or less totalising projects of the grand narratives of social liberation (for example, socialism, or feminism) have become a patchwork of more nuanced, subtle and localised concerns and engagements that, while honouring their origins in the liberatory movements of the nineteenth and twentieth century, now make more sense as pragmatic, direct

interventions to achieve key outcomes in everyday life within more narrow frames of reference.

Information technology, it can be argued, has developed along an analogous path. Whatever the origins of computing and communications, the current situation involves networks and nodes, which distribute the processing (both human and machine) of information and its reception and consideration and further dispatch. Networked computing is, similarly, a patchwork of diverse technologies and their affordances, understood (if not always managed) as a localised phenomenon even as it forms a seamless connection with the world around it. Through both the very real features of the technologies which have developed since the 1980s and brought us the Internet, and the way we, as humans, understand and experience them, networked computing owes more to the postmodern concerns of fragmentation, contingency and partiality than the grander narratives of modernity which enabled computers and communications to be developed. The almost entirely capitalised and privatised nature of Internet development has imbued it, too, with the logic of late capitalism, further emphasising the way in which it reshapes our understanding of the social world towards the postmodern (see Lyotard, 1986; Jameson, 1991 for example).

As I will explore, there is a tension between the publicly liberating possibilities of networked computing and the insistently exploitative ends to which they also seem to be turned in pursuit of private profit. This tension reminds us of the necessity of privileging human relations above the technical means by which, often, we make and sustain relationships whether intimate, professional and/or political. I will then argue that technology is not a tool (or at least not only a tool), but also the environment within which social action can – perhaps must – occur; the purpose, often, for that social action; and very often a medium for personal expression.

A contrast: technology for social action and for capitalism

There is no question that networked computing technologies have made life a great deal easier for people seeking to achieve changes in our world that lead to a more just, equitable and humane society, especially in more advanced societies but increasingly even in developing nations. The very existence of the Making Links Conference, at which this paper was first delivered, is testament to the value which emerges in the pursuit of equality and improvement at ‘the intersection of social action and IT’ (*Making Links*, n.d.). This value is now very apparent to us – surrounded as we are by the outcomes of some forty years of computer networking, outcomes that would amaze (and probably bemuse) the early pioneers of the Internet. Even as recently as the mid-1990s, when public appreciation of the World Wide Web grew dramatically, there was little clear sense of just what the Internet might achieve in connecting people through and for information.

What is the key advantage for social action in the rise and rise of networked computing, in the dramatic development in the technologies which make it available, the software that makes it useful, and the extent of access for people that makes it powerful? Put simply, networked computing dramatically reduces the costs – mostly in time, but also in money – of one of the core functions of social action which is to collect, consider and disseminate information necessary to the development of greater real knowledge (real as in lived and understood) about the challenges our societies face. Information serves as the basis on which problems can be identified, solutions can be developed and action taken to ensure those solutions are implemented: information creates the knowledge of

the social conditions which must be confronted, *and* the actions needed as a consequence. Equally networked computing extends the reach and impact of social action beyond the necessarily limited (if also empowering) places in physical space we create for such action, reaching into the everyday places in which people live their lives. Even more importantly, the network effects of information technology have always been about human communication, as evidenced by the rapid re-purposing of the computer-to-computer orientation of the early ARPANET to serve a much broader purpose of connection people with people (Abbate, 1999). Thus, since social action necessarily involves collective endeavours – often among people who are not closely collocated or whose time and ability to gather together is limited by the conditions of inequality they face – networked computing provides a very significant benefit in making social action work.

Networked computing, fundamentally, is about the ‘packets’ of information whose existence defines the packet-switched network that is the Internet. Technically, the Internet works because no single ‘thing’ is ever transmitted across its infrastructure: instead, people and machines conspire together to send tiny fragments, along with instructions on how those fragments make up a whole, so that at the destination of the packets, all those fragments can be reassembled into the single entity whose transmission matters. There is no need here to consider in detail how this technological approach creates more efficient and effective communications (see Abbate, 1999 among others for detailed discussion). More importantly, we can draw from the notion of packet switching the idea that the Internet works *socially* because it enables a form of distributed engagement with the world amongst those using it. Every benefit the Internet brings (and indeed its disadvantages) can be understood in these terms: we no longer need ‘assemble’ in one place, at one time, with all the costs involved: we can operate in multitudes and in many places all at once, even to the point where who ‘we’ are can become vague.

But, even in much earlier times when such possibilities were more vision than reality, this value was also clear for those seeking to achieve socially just outcomes in the world. 2009 was the fortieth anniversary of the fundamental foundations of the Internet: it was also the twentieth anniversary of Pegasus, the first national public Internet service provider in Australia (Peter, 1999). And Pegasus was the Australian component of the Association for Progressive Communications (APC), whose mission throughout the 1980s was to harness the then still-emerging possibilities of networked computing to support global action for peace, environmental protection, labour rights and other socially progressive causes (see APC, n.d.). APC – and Pegasus with it – represents the central significance of networked computing: it offers the means by which those outside of the mainstream circuits of authority and power in society can both disseminate information necessary for social action and bring into collective action disparate individuals and groups who must organise together to achieve change.

For much of the 1990s, the emergence of the Internet into more general society, in forms usable in simple ways by many people, was imagined to be capable of transforming our political lives; certainly this claim was routinely made by the leading cyber-based activists of the time. Networks, especially when more widely available, were thought to liberate individuals, the movements which they form, and the communities to which they belong from the stifling influence of structured political communication in representative democracy and the deadening conservatism of the mainstream news media. The capacity of the Internet to enable exchanges of information outside of the authorised circuits of

communication, and to create opportunities for shared experiences without physical co-presence, promised so very much. Whether one's particular views tended to support the general organisation of liberal democratic politics or oppose, the Internet appeared to be making things different (see for example, articles in the collections by Dutton, 1996; Loader, 1997; Smith and Kollock, 1999).

And indeed the Internet has made things very different, but not quite in the way some people imagined, hoped and in some cases worked very hard to achieve. The Internet was going to make the media much less powerful (e.g., McChesney, 1996). Now people can get traditional television programs via the Internet and online news – while a more diverse place than print – is still dominated by the allegiances between the larger media concerns and their Internet allies (such as yahoo7.com.au and ninemsn.com.au). The Internet was meant to connect people with their political representatives: now politicians astutely bombard voters with emails and status updates, channelling back to citizens, through their social media engagements, the excessively governed communications which the Internet might once have allowed us to avoid. The Internet was meant to build deeply committed movements and communities over space and time: now Facebook sells the idea that 'friending' people is a competition to see who can get the most (Raynes-Goldie, 2010). The Internet was meant to hold corporations accountable: now they monitor Twitter 24/7 and manage their brands and reputations even more efficiently (see Grunig, 2009).

These contrasts, between the hoped-for radical change in the everyday political world which the Internet was going to bring, and the current circumstances, are not intended to make us sceptical about the significance of networked computing for social action. Rather, they are designed to remind us of the humility we need when we invest our desire to change the world into technologies through which to achieve that goal. It might even be fair to say that *more* was probably changed by the very earliest connections made between activists and community members through simple technologies, and with a very clear and common purpose, than through the more extensive, socially generalised distribution of far more sophisticated networked connectivity in the 1990s and into this century. A few crucial emails, winging their way across Pegasus's networks to fight environmental damage; the circulation among NGOs of one electronic copy of a key UN report: perhaps these made more difference, in relative terms, in the 1980s and early 1990s, than any number of websites, forums and communities now. The humble difference which networked computing makes is just as important: perhaps too it is more sustainable.

The contrast of the hopeful 1990s and the clicking, linking, online everywhere 2000s, might also lead to the conclusion that social action might actually be better off with much less reliance on computers (a view long held by some green activists: see Pickerill, 2003). It is not, however, the view I hold. Rather, what it tells us is that social action is by definition at the margins of the everyday world it seeks to change. (If it were not at the margins, working *for* the marginal, the ignored, the repressed, would it be so valuable?). Once the productive, economical advantages of the Internet become mainstream, then the weight of investment, resources, opportunity found in that mainstream of society inevitably overwhelms the capacity of those fighting for change, with limited resources and much to do, to determine what the Internet is and how it is used. Technology, thus, is not the answer, at least not these days, because networked computing is thoroughly embedded within the systems of exploitation and control through which capitalist economies do their work. As Michele Willson (2006) has argued, in such circumstances,

it is all too easy for people to be ‘technically’ together, linked or bound in relationships which are thinned out by the mediation of technologies whose contemporary economic worth is all about reducing the time and cost involved in people actually doing things together, face-to-face. It is not possible – nor desirable – to retreat from this world, for the networked technologies do provide very significant benefits both in everyday life and in that particular form concerned with social justice. But we should pause and consider how networked computing gives us one freedom, one cost saving, only at the expense of something else.

In its thorough-going adoption by society and its key institutions, networked computing serves to amplify, extend, or create new opportunities for profiting from *savings* made in human time and, in the end, capitalism has always been about saving time so as to profit more greatly from it along with other resources (Thompson, 1967). Where those savings thereby enrich our human relationships, we profit; where they attenuate the relationships which make us who we are, substituting attention to information itself, rather than the people expressed through that information, we lose. To avoid such losses, I would argue that we must ‘de-tool’ technology, in the sense that, the more we treat it as a tool – something to be picked up and put down – the more likely it is that we will see its advantages in terms of our *own* savings in time, and forget the cost at which those savings are achieved. When we treat technology as a tool, it treats us in the same way: for as much as we ‘use’ technology, it also uses us, for its efficiencies and effectiveness come from the way humans become the *objects* of technological processes. Indeed, one of the great frustrations of contemporary life is when a computer refuses to accept our input into its system for processing because ‘who we are’ does not fit with what the programming expects us to be: we must surrender to the logic of the database-defined fields, losing some aspect of our humanity, in order to become part of the symbiotic relations of processer and person (see the recent work of Floridi on ‘inforgs’, 2006).

Mark Poster (2001) once wrote that the Internet is more like Germany than a hammer; using a hammer does not make you ‘a hammer’; but living in Germany makes you, more or less, German. This much-used idea, first published in 1995, reflects the way that, in those days, the Internet *was* like a distinctive place or space, not contiguous with any specific country or society and thus could, very much, become the basis for human self-identification. Indeed the liberatory potential of the Internet in those times was expressed through such sentiments. I have long favoured and used Poster’s idea. Now, however, I think its day is done, for the Internet is what we have: societies (and increasingly this includes even quite disadvantaged nations) have woven the Internet through everyday life, everywhere and everything such that no particular distinctive identity can emerge from it. In these conditions, in fact, it is all too easy for using the Internet to make *us* the tool – the object of productive outcomes for someone else. Poster was keen to emphasise the way the new online communications ‘instantiate new forms of interaction and which pose the question of new kinds of relations of power between participants.’ (Poster, 2001: 177) However now the answer to that question is not so positive as it might have seemed: the power relations now enable domination to occur precisely because we, like technology, are tools within the sprawling complexity of an Internet that is shaped by Google and its data-mining and exploitation of much online activity, and not by the Usenet, MOOs, and lists that Poster (and many of us from that time) found so inspiring (see for example a critique of the claims to ‘liberty’ in Web 2.0 discourse in Allen, 2009).

So if technology ought not to be a tool, how can we ‘de-tool’ the Internet, and yet still have ideas about how we can benefit from it? How can we shake the dominant logic of a world that is insistently technologised and tends to see every problem as one in need of a technological solution which can be applied in an instrumental manner? The answer is that networked computing is part of the environment within which social action can occur; is often – and perhaps should be more often – the purpose of social action; and it is a medium through which expression of self and belief can occur. Even while we adopt and exploit the internet’s tremendous utility to communicate, share and collaborate, we should not lose sight of these more substantial ways in which it makes and shapes our lives.

Three ways to think about technology

Environment

Traditionally, popular and critical debates about the Internet and its relationship with society have been marked by the assertion that the Internet is a different place, outside or otherwise separate from, our everyday lives. Indeed the very notion of ‘cyberspace’ emerged as a claim to this difference. Cyberspace was not just another place, unlike those physical spaces from which people moved in their online activities; it was a state of mind. Being in this state of mind marked one out as seeking difference, exploring possibilities for a future (a time, as much as a place) that was not constrained by all current norms and conventions. And, because the Internet erupted in such an uncoordinated manner, ungoverned by the powers that assign and maintain those norms and conventions, it was easy to imagine its independence, rather than accept its significant interdependence on, the spaces which remained resolutely physical.

There continues to be some enthusiasts for this differentiation between the physical and the virtual (see Thomas’ analysis of the emergence of Web 2.0, 2005); and, realistically, we cannot say there is *no* difference between the Internet and the rest of the world, but it is hardly the case that the Internet is an alternative virtual reality anymore. Such places do exist – the world of *Second Life*, the game *World of Warcraft*, and even to this day chat-rooms for online communication - but, if these places form a distinct and alternative world, they do so via the deliberate suspension of disbelief which is common to all pursuits (literature, sport, music, films) whose purpose is to remove us, for a time, from the everyday world. More to the point, so much of what we used to do, still do, and will continue to do ‘offline’ – banking, shopping, information seeking, communicating – is now also done, in varying degrees, via the Internet, that networked computing now occupies the same kinds of places as we find in the physical world, at the same time. Indeed, it can even be argued that the ‘virtual realities’ online are themselves inspired by such ‘places away from reality’ found in the physical world as well.

Thus, while every person varies in their degree of connectivity and engagement with the Internet, as a social phenomenon in its own right, the Internet is now interwoven with human life such that it is part of our environment just as surely as the trees, roads, buildings, sea and sky. As such, it is part of the environment in which politics, work, business, play and socialising is done. There is no escaping the Internet. Even if we refuse to connect, this so identifies us as different that we have ‘connected’ with it; and even if we cannot connect, this identifies us as ‘outside’ that which most people – over seven million households by last count (ABS, 2009).

It is not just the extent of connectivity, either. So much information, communication and other forms of exchange now occur (or can occur if we are connected) through the

Internet that no form of social action can, realistically, step away from the Internet, except as a deliberate move to emphasise particular aspects or purposes of that action. Thus, rather than being a tool, the Internet is an all-encompassing environment within which all political, social and other action occurs. Being an environment, people occupy the space, make them places and give character to it. Thus, if only at a metaphorical level, seeing networked computing as environment refocuses our attention on what people are doing there. Simply 'doing something with technology' no longer makes a difference: everyone is doing that. We need to connect with what everyone is doing with that technology and understanding how human lives are lived online. For example, the success of online campaigns, most obviously Obama's presidential campaign in the United States, was built on spreading his 'presence' throughout the diverse places of the Internet and utilising its many transactional channels – video sharing, financial systems, Facebook status updates, and so on, becoming part of the 'digital ecosystem' which thrives in that environment (see Hill, 2009).

Purpose

Social action *for* networked justice – whether that is overcoming the digital divide, fighting inappropriate online activities, promoting digital literacy, or any one of many socially just interventions in the pervasive environment – has always been associated with activist or other progressive uses of the Internet. Once activist and community leaders had themselves started to realise the potential and significance of being connected, they often put efforts into building and extending that connectivity (famously, the community networking movement in the 1990s in the USA – e.g. Uncapher, 1999). Research has shown that significant secondary benefits – community awareness, volunteerism, a sense of pride and hope in life, knowledge of how to be involved in social change – can come from projects and activities which focus on getting people online, or building their online abilities and skills (for example, Powell, 2008; see also Lacey, 2005).

Thus for two key reasons, a technological focus for social action is significant. First there remains a continuing need to overcome the digital divide which, though expressed more now in terms of the skills and abilities of users rather than absolute connectivity, continues to act as a marker of social division between those more able to benefit from society and those excluded. Social action to promote effective use of the Internet by the less advantaged remains a critical component of social justice; perhaps now this need can be linked to specific kinds of online engagement rather than general 'connectedness' (the work of Hargittai is important here, see for example Hargittai and Hinnant, 2008). Yet social action whose purpose is to promote, extend or otherwise focus on the uses of networked technology remains important also for its capacity to teach people what can be done to change the world, in concert with others.

Technologies have their own purposes: but effective action with technology reinstates human needs and requirements as the motivations for our interactions through and by networked computing. If we understand that technologies implicitly involve purpose and direction, then we also begin to appreciate how no 'tool' we might pick up online can ever be neutral in its disposition. For example, Facebook has become a common site for protest movements or appeals to action; whatever the purposes of the users and promoters of Facebook for this kind of action, the system itself also serves the ends of the corporation that runs it which, put simply, is to make money from the innumerable acts of individual labour that go into building a rich, informationally sophisticated network suitable for sale to advertisers (see Jarrett, 2008).

Medium

Finally, and perhaps most importantly, we see how networked computing is all about our human selves when we observe the extraordinary array of self expression found through both original content creation, mash-ups and remixes of existing content, or even just the circulation of information about other content. While commonly associated with Web 2.0 and social media (Allen, 2008; 2009), such self-expression has always been a part of the Internet: it has just taken some years for the systems to develop, and our societies to value, these forms of expression. Self-expression is vital because it creates the conditions by which people can find and connect with others of similar views, forming the kinds of collaborative arrangements which sustain longer-term social change. This expression has two key elements for social action. First, expression involves the activation and development of identities which are shared amongst participants and which, through sharing, lead to greater levels of trust in the commitment of participants and their capacity to take responsibility when required (Ryan, 2004; Coopman, 2004). The Internet as medium serves as both the conduit and the culture by which individual acts of expression can become collective. Second, self-expression demands an audience and helps to create one: it is a medium of listening, as well as speaking. As Mitra and Watts have argued, the political potential of the Internet is realised when we see it as ‘a discursive space produced by the creative work of people’ (2002: 486) rather than simply as tool for communication.

Essentially, seeing the Internet as a medium for self-expression is that individuals can be more empowered to have agency in a world increasingly ordered for them by consumer capitalism (see Toews, 2009) and to understand agency as something held in common, or at least in concert with, others. The Internet involves ‘a radical reconceptualization of the user, from consumer of online products and information produced by companies to producer of online products and information that they share with others, including companies.’ (Harrison and Barthel, 2009: 160). It is a very direct form of agency which matters. If traditionally, active audiences exercised agency in the production, sharing and revision of meaning (through viewing and talking about the media), now people produce, share, directly comment on (and thus contribute to) media forms, combining both production and reception. Moreover, this agency extends across so many different domains of ‘media’ – autobiography, product reviews, mapping, librarianship, journalism, satire, cartooning – that agency is also now experienced as through diversity of opportunity. And, while much can be made of the way this ‘new media’ involves consumers doing the producing (and, often – through analysis of what is produced, producers becoming consumers), in fact its most distinctive feature is the collaborative aspect.

Conclusion

In the end, people inevitably invest in the Internet considerable hopes for achieving change for the better, living as we do in a world in which, it seems, the only way to think ‘the future’, to imagine reaching it, is through technologies either now or soon to be. Undoubtedly, the Internet ‘can assist people seeking progressive social change...as a means of change alongside other forces’ (McCaughey and Ayers, 2003: 2); the evidence is there, from more than twenty years of such endeavours. However, as we look forward, the emphasis must be on ways to make necessary partnerships between technology and humanity. By arguing that the Internet is not a tool, but an *environment* within which complex digital ecologies involving activist components flourish, can and should be the *purpose* of programs of change, and is ultimately a *medium* in which to grow the cultures of human expression, I have gone some way to exploring how we might make those

partnerships successful and, thus, our efforts to change the world. In a world where powerful social actors such as governments and private corporations have many more resources and capabilities for online information and management than community groups and activists, the successful use of the Internet for social action depends on the metaphors and mindset with which we approach the Internet.

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