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22 Digital Media

The cultural politics of information

Andrew Whelan

- While the distinction is somewhat vague, digital media are commonly positioned as ‘new’ media, as opposed to ‘old’ and analogue media.
- There is much debate regarding the cultural, political, and social impacts of digital media, particularly as regards access to cultural production and consumption, access to information, and access to digital media themselves.
- While access to the means of cultural production, and thus the emergence of ‘participatory culture’, is facilitated by digital media, there are still grounds for approaching claims that digital media are empowering and democratising with caution.

What are ‘digital media’?

The term ‘digital media’ is contrastive — specifically, it is contrasted with ‘analogue media’. This binary runs roughly in parallel with the distinction drawn between ‘new’ and ‘old media’, although, of course, new media are now not quite as ‘new’ as they once were. Technically speaking, where analogue technologies record signals as electric pulses (and usually to a fixed physical format, or intended for diffusion through such formats); digital technologies render those signals in binary form, as sequences of zeroes and ones. While the distinction is somewhat blurry, examples of analogue media include television, radio, vinyl records, video and audio cassettes, whereas examples of digital media include networked computers, mobile devices, and the huge array of ‘suffixed’ file formats (.mp3, .pdf, .jpg, .avi, .doc and so on). One way to distinguish analogue media is by their discreteness — you cannot play a tape or make a call on a television (it was not always so: early phonographs could be used for recording as well as playback, and early telephones were used to broadcast music). Digital media are metamedia, they *remediate* older media (Bolter and Grusin 1999), so you can email, read (write) the news, make a (video) call, read (and write, and publish) a book, listen to (and make, and distribute) music, download and watch (and produce) animation and so on, on a networked laptop. This is one of the meanings of ‘media convergence’. More

generally, digital media can be said to refer not just to the devices we use for producing, accessing, and distributing information, but to the cultural and social practices associated with their consumption, production, and use, and indeed the political and economic ramifications of these.

Digital media have become a focus of attention for scholars across the humanities and social sciences, and there is a sizable literature in the area. The phrase ‘digital media’ is bound up with a range of concepts addressing the use of these technologies, such as the ideas around the emergence of a post-industrial information society and an information or knowledge economy (Bell 1981; Castells 1998; Fuchs 2008), the implications of virtual communities and virtual worlds (Boellstorff 2008; Rheingold 2000; Shields 2003), the preoccupation with ‘Web 2.0’ (Bassett 2008; Song 2010), convergence culture (Jenkins, in this volume), social media and social networking sites (Craigie, in this volume) and so on.

This is not the place to describe this literature, but it is worth commenting on in passing. There is a sense now that much of the early work on digital media manifested a kind of ‘techno-utopian’ rhetoric (Sterne 2005), not entirely dissimilar to that which circulated around previous niche media. Central here was the conviction that digital media are, in and of themselves, participatory, empowering and democratising. This rhetoric evidences a discourse sometimes referred to as the ‘technological sublime’ (Nye 1996) — a kind of fetishisation of technology and ‘the new’. The adoption of digital media and the apparent emergence of an information society were taken to imply a paradigm shift in the social and cultural order, a digital revolution.

The internet, for example, was going to reinvigorate community, free speech, and democracy (Barlow 1996; Klein 1999; Rheingold 2000), as it liberated the self from the material constraints of ‘meatspace’ (Turkle 1997). It was suggested that we were at the dawn of the ‘posthuman’ (Haraway 1991; Hayles 1999). The digital revolution was thought to be unprecedented in human history, and to either actually re-order society and culture, or at least be a (or *the*) major factor in such re-ordering. This was described as being the most significant development of media form since the invention of the movable type printing press in the fifteenth century.

However, there are good grounds for caution in thinking of digital media as revolutionary, as there are also with thinking the same of the introduction of the printing press. Cook points to two as regards the latter, namely, the limited availability of paper, and widespread illiteracy; in doing so, he problematises analogies which draw on what he calls the ‘Gutenberg myth’ (1997). Technologies do not in themselves bring about social change. Rather, they are embedded in social practices, and co-constitutive with them. Arguments which

suggest otherwise are often castigated as technological determinism: the notion that technology not only has social effects, but that it can actively cause widespread social and cultural change, whether this change is conceptualised in utopian or dystopian terms. Moreover, the ways in which we conceptualise technologies impact upon not only their use, but also their development. It has been speculated that some of the early architects of the web were influenced by science fiction. The term ‘cyberspace’, for example, originates in the sci-fi of William Gibson (1984), where hackers ‘jack in’ to the matrix to interact directly with pure information. In thinking about digital media, either in customary or critical terms, we are also producing them as objects of inquiry of a certain kind.

Digital media as cultural form

Digital media and the debates around them thus generate insights into the complex interrelations between technology (as form or medium) and culture (understood both narrowly, as ‘content’, and broadly, as social practice). At the same time, the social practices associated with the production and consumption of cultural content are also altered (as when people ‘timeshift’ their favourite television by downloading it rather than being bound by the broadcasting schedule). Nor is the remediation of ‘old’ media forms the only or most significant aspect of digital media. Much scholarly work has focused on emergent social and cultural practices across a huge range of ‘virtual communities’, attending especially to cultural forms which have developed wholly or significantly through their digital mediation.

Technology, however, is also perhaps best thought of as culture — technology, like ‘science’, is never neutral. People do not generally think of an atomic bomb, for instance, as being a ‘neutral’ tool; technologies are always implicated in social relations. It is perhaps better to think of technologies as having *affordances* (Hutchby 2001). Just as water coolers (Fayard and Weeks 2007) or automatic door-closers (Latour 1988) have social affordances ‘inscribed’ into them (respectively, allowing people to congregate informally at work, or to no longer bother closing doors after themselves), so digital media invite users to assume certain positions in their interactions with and through them (for example, in setting up profiles, it is rare to *not* be asked to specify a gender). Over time, the positions technologies offer us can become ‘enculturated’ — as, for instance, with the reconfiguration of public space around the car in Western cultures over the course of the last century (Urry 2004).

Nor are affordances restricted to the interactional positions they offer. The histories of the turntable and the sampler and their role in popular music serve as excellent examples of this (Katz 2010; Thornton 1995), as does the more recent incorporation of digital sound into popular music aesthetics — including the

sound of digital error or ‘glitch’ (Young 2002), classic videogame sound (Driscoll and Diaz 2009), and the proliferation of the mp3 itself in mash-up and other musical subcultures (Sinnreich 2010; Whelan 2008). Technologies may lead or guide social action and interaction through their affordances, but they cannot ever entirely determine their own use. This will become more evident below when we consider some other unintended consequences of digital media.

In terms of access to the means of production and distribution of media — effectively, the ability to be publicly heard or to intervene in public debate — it is clear that digital media certainly possess some novel affordances. Consider independent or niche media practices prior to digital media: some good examples of DiY media include tape-trading (Manuel 1993, Marshall 2003) and zine (short for ‘magazine’) cultures (Duncombe 2008; Schilt 2003). Such ‘micromedia’ were and continue to be significant to numerous youth cultures (Harrison 2006; Kahn-Harris 2007). However, independent media is also often linked to dissidence and subversion, as with ‘samizdat’ culture in the Soviet Union (Feldbrugge 1975; Oushakine 2001). The humble cassette tape became associated with political ferment around the Iranian revolution of 1979. Prior to the revolution, recordings of the Ayatollah’s speeches in exile in Paris were distributed widely within Iran, rather like analogue proto-podcasts, despite the best efforts of the Shah:

[i]n [the Ayatollah] Khomeini’s rented house, two tape machines were kept permanently running, recording his speeches and announcements and duplicating them for transmission or transportation to Iran. Khomeini refused to talk on the telephone directly so international lines were used for tape-to-tape recording. In Iran, followers in makeshift studios with numerous cassette recorders worked around the clock to duplicate these texts. (Sreberny-Mohammadi and Mohammadi 1994: 120–121)

In a curious case of history repeating, Western news sources reported enthusiastically on the use of Twitter in Iran following the contested 2009 election (Morozov 2011).

Leaving aside for the time being the question as to whether enterprises such as Google, Telecom^{NZ}, or Microsoft are or are not similar to companies like 20th Century Fox around the middle of the last century, we can say that analogue media as technologies are generally associated with *mass media* as modes for the production and circulation of media messages. Mass media imply massive proprietary, and concentrated *one-to-many* broadcasting and content producing conglomerates, such as syndicated TV and radio networks, print news sources like the *New York Times*, the ‘studio system’ of movie production and so on. Digital media, on the other hand, are generally understood to be, at least potentially, *any-to-many* — consider Twitter or MySpace profiles. Where

analogue media content tends towards the mass and vertical (or top-down), digital media content includes the niche and horizontal, for instance a ‘friend-locked’ LiveJournal community.

Examples like LiveJournal or Twitter highlight the apparently agential affordances associated with digital media. In the analogue media environment content was capital-intensive, authoritative, and produced by professionals. Analogue media consumers were (in a rather exaggerated way) held to be a passive, atomised mass audience (Adorno 1991); digital niche media are associated with an altogether different figure, the producer-user or *produser* (Bruns 2010). The produser is a digital media user whose use is also productive in generating value. The example often provided of such user-generated or ‘crowdsourced’ content, being produced in ad-hoc networks of distributed creativity, is the success of Wikipedia, but seemingly innocuous behaviours, such as uploading photos to Facebook, also produce value (both for the uploader and their ‘friends’, and for Facebook and its advertisers).

Digital media also differ from analogue media in terms of their reproducibility. Imagine if somebody wanted to spread the word about music they liked in 1981. They might produce a zine using a typewriter, a photocopier, and scissors and glue (the technologies from which ‘cut and paste’ in contemporary software is derived — this kind of residual retention of older forms is sometimes called ‘skeuomorphism’). They could then sell or give away this zine — perhaps through a local independent record store. Over time, they might become familiar with and participate in ‘snail mail’ networks involved in trading zines. Digitisation ‘dematerialises’ these sorts of practices by rendering the zine or the cassette (the movie, the newspaper and so forth) in binary code.

Our hypothetical zinester would today likely set up a blog, and this is significantly different from the 1981 situation in the following two ways: the blog (for good or ill) is potentially accessible to virtually anyone in a way that the zine was not. Also, one reader’s use of the blog does not preclude another reader’s use, whereas if there are only so many copies of a zine in circulation, one reader being in possession of a copy means by definition that some other reader does not have it. In economic terms, this point raises a fundamental feature of digital media: they are generally what are called ‘non-rivalrous goods’. One person’s consumption of, for instance, an mp3 hosted on another person’s computer, does not foreclose the possibility of another person also accessing that mp3. Unlike with, say, a hamburger, with digital media, consumption does *not* necessarily decrease value, and often may *increase* value (as with, for example, the adoption of open source code). Digital media can of course become rivalrous to the extent that proprietary claims can be made, enforced, and engineered. This issue is one of the central concerns around digital media.

Digital media and the politics of information

This concern is effectively around the ‘freedom’ or otherwise of digital media. The arguments advanced by ‘cyberlibertarian’ advocates for the freedom of digital media (sometimes disparagingly referred to as ‘freetards’ when their arguments address cultural goods) can be usefully framed in relation to a famous aphorism, attributed to Stewart Brand, suggesting that ‘information wants to be free’ (Anderson 2009). Of course, information cannot actually ‘want’ anything. Yet what is especially interesting about this slogan is the semantic ambiguity of the word ‘free’, where this may be understood as at no market cost (or no market value), and/or as unhindered in its movement, unrestricted, unpoliced. We are thus brought neatly to consideration of the market, and the state, and their respective relations with digital media. The aphorism implies, in keeping with a ‘cultural commons’ position, that it is in the public good for information to circulate widely, that artificial scarcity in the service of profit is not only inefficient, but detrimental to the wellbeing of society and culture at large. Arguments such as these are closely associated with the movements around ‘copyleft’ and Creative Commons licensing.

Over the last ten years, some of the most significant politico-legal interventions concerning digital media — including notably those which occurred in national courts of law and through supranational entities such as the European Union — have sought to address and frequently to counter such arguments (this is the ‘paytard’ line). A common tactic, now enacted as law in France, Ireland, Malaysia, South Korea, and Taiwan, is to threaten ‘pirates’ with disconnection for sharing copyright material, as proposed also in New Zealand’s *Copyright (Infringing File Sharing Amendment) Bill* (New Zealand House of Representatives 2010). In many countries legislation has been put in place to restrict ‘fair use’ provisions (for example, rights of use for satirical or educational purposes) and bolster and enforce the intellectual property rights held by established media interests. In some instances, this legislation is being devised without public knowledge or disclosure, as with the international *Anti-Counterfeiting Trade Agreement* (to which New Zealand is a signatory). In this regard, the recent history of digital media can be written as a history of legal judgements, as network technologies are subject to legal scrutiny, particularly the decisions made in *A&M Records Inc v. Napster* (2002), *MGM Studios Inc v. Grokster* (2005), and the Pirate Bay convictions (2009). These cases represent significant attempts to control novel and emergent socio-technical forms for managing, exchanging and producing cultural and social value. Among their implications, such rulings are likely to have chilling effects on technological innovation.

Over the longer run, one of the things we are witness to is an emergent culture of information which is sometimes at odds with traditionally powerful

intermediaries. The idea that anybody with access could upload video to YouTube, or release an album on a netlabel, seems to indicate a shift in the terrain of the possible in media production and dissemination, as well as an increase in the range of media on offer. Moreover, the social affordances of such a shift are also profound, and the incredibly vast array of forums, fan communities, support groups, subcultures, and countless other ‘networked publics’ (Ito 2008) are evidence of this. Moreover, the existence of such cultural and social forms clearly redounds ‘offline’ (as, for instance, with the normalisation of online dating).

These developments relate to information access *in general*, although the established cultural industries have been particularly vocal in framing them as economically damaging. However, presenting ‘culture’ as (only) market goods and isolating the economic as ‘autonomous’ from the social and the political is itself problematic. Cultural forms like music, for instance, have not historically been the sole preserve of large-scale industrial concerns; rather, they are deeply embedded in social life. This is why dismissals of the ‘freetard’ position in favour of access often miss the mark.

At the time of writing, the debate around access to information has focused on WikiLeaks, a site which releases documentary evidence, usually as furnished by whistleblowers, which would otherwise not come to light. The outlook expressed by WikiLeaks follows cyberlibertarianism in positioning open access to information as an absolute value, and information itself as an absolute good. Indeed, freedom of information, the right to free speech, and institutional openness, transparency and accountability are foundational values in democratic societies, albeit more honoured in the breach than the observance. Thus, Wikileaks — and cyberlibertarianism generally — radicalise rights enshrined elsewhere, including the *First Amendment to the US Constitution* and Articles 19 and 27 of the *Universal Declaration of Human Rights*, which state that:

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits (United Nations General Assembly 1948).

Wikileaks also highlights the continued power of established intermediaries in deciding what counts as ‘news’. WikiLeaks acts as a kind of clearinghouse: while documents may be contextualised, and in some cases redacted, WikiLeaks does not really *interpret* (or more unkindly, *spin*) them. The business of *realpolitik* revealed by WikiLeaks was reported internationally in 2010,

although more substantive aspects of ‘Cablegate’ — the release of hundreds of thousands of US diplomatic cables (confidential correspondence between the State Department and its overseas embassies) — did not receive as much coverage. This was contrary to WikiLeaks stated aspiration that established news media might use the documents they host to call governments to account (Khatchadourian 2010). In light of this, WikiLeaks’ *modus operandi* can be considered strategically ‘meta’: challenging ‘power by challenging the normal channels of challenging power and revealing the truth’ (Giri 2010).



Figure 22.1 WikiLeaks: an example of cyberlibertarianism

The orientation to information articulated by WikiLeaks and others is sometimes referred to as ‘hacktivism’. The organisation known as Anonymous, for example, has conducted DDoS (‘distributed denial of service’) attacks on targets as varied as Gene Simmons of the band KISS, the International Federation of the Phonographic Industry, the governments of Australia, Tunisia, and Zimbabwe, the Support Online Hip Hop site, and the Church of Scientology, crashing sites in all cases. In late 2010, Anonymous also targeted a range of financial companies which withdrew their services from Wikileaks and supporters wishing to donate to it, including Paypal, Bank of America, MasterCard, Visa, Amazon, Moneybookers, and the Swiss bank PostFinance, with similar effects (Holwerda 2010).

Even taken solely as a symbolic expression of dissent, hacktivism takes us into territory where cultures of use, technology, economy, political ideology, and

information itself become the grounds for social mobilisation. This is rather distinct from the forms of political action referred to as ‘new social movements’ from the 1960s onwards (Melucci 1994), let alone conventional left/right party politics. The sheer audacity of Anonymous, WikiLeaks, and the Pirate Bay in refusing the procedures of conventional opposition is striking in this regard, to the extent that questions have been raised about the possibility that the model of power operationalised in hacktivism is in some way impoverished. Perfect information is not going to provide us with salvation, although accelerated access to information is highlighted here as a cultural and political force. Like technology, information is not an independent ‘change agent’.

Economies of digital media

Freedom of information as a value needs to be placed in its broad context — a context of increasing ‘hyper-visibility’ (Nayar 2010) and ‘überveillance’ (Michael and Michael 2007), particularly as regards the diminishing privacy of the individual, rather than the institution. Free information cuts both ways, and goes in unpredictable directions. Sobering counterarguments to the idea that information wants to be free point to the ambiguity of ‘free’ also in other ways: organisations like the Recording Industry Association of America, for instance, have argued strenuously that ‘free culture’ actually frequently implies *displaced profits*: internet service providers, they suggest, unethically reap the rewards which previously accrued to the entertainment industry. Such an argument hinges on equating ‘free culture’ only with ‘piracy’; it would not apply, for instance, to the netlabels which simply give their music away (Whelan 2010). However, participatory culture also implies displaced profits to the extent that it is predicated on free labour or *playbour*. Kücklich uses this term to describe game modification or ‘modding’, where gamers engage in game development as an extension of leisure, and the economic value of this development is recuperated by the industry (2005). Proponents of free culture often advocate for an understanding of the unpaid work of mash-up artists, for instance, as a resistant engagement with copyright, rather than free publicity for powerful record labels. Notions of participatory culture and ‘we, the media’ (Gillmor 2006) are all well and good, but they are often belied by the large scale concerns which host such productions and profit from them. The wonderfully ‘free’ participatory cultures of digital media can also be understood more cynically, as consumers joyously and freely generating content for corporations averse to the financial risks of innovation, but keen to profit from it nonetheless where their most loyal customers will do it for them.

This is why it is always interesting to follow the money: who might profit from the content hosted at LiveJournal, Blogger, Facebook, or YouTube — and who might pick up the tab? Such questions can also be extended to those who

provide the hardware and infrastructure on which digital media depend — information may be virtual zeroes and ones, but it is still reliant on physical devices, and those devices are produced by real people in real places, and end up in real places when they rapidly become obsolete. In deciding that Dell laptops could be said to be made in the US, the Department of the Treasury (2002) found that,

[t]he components are sourced from various countries, which include: the chassis (Taiwan); hard disk drive (Thailand); BIOS chip (U.S.); floppy disk drive (China); AC adapter (China, but in the future, Thailand); CD ROM (Japan); fax modem cards (U.S.); docking station (Taiwan); and the memory board (Korea, Japan, or Singapore).

How well informed have digital media rendered Westerners about internet access and censorship, or even labour or environmental policies in any of these countries? This question points in a broader sense to the discourses which circulate around digital media as one-size-fits-all solutions to social problems. Nicholas Negroponte (1995), an early proponent of the techno-utopian views discussed above, went on to establish One Laptop Per Child, a non-profit project partially funded by, among others, eBay, Google, Intel, and News Corporation, which aims to provide children in developing countries with computers (made in Taiwan). Critics have queried the appropriateness of providing laptops in areas with often endemic poverty: is a laptop useful or a colonising ‘gift’ in an area where there may be poor access to potable water, let alone print materials in the local language? The goals of One Laptop Per Child are laudable, but might not expanded teacher training — or even the adequate provision of *pencils* (Felsenstein 2005) — be a better educational priority?

Such considerations interrogate the underlying assumptions of the techno-utopianism still associated with digital media, where an individual interacting alone with a laptop is the very model of civilisation and emancipation, while the social and cultural context is entirely evacuated. ‘New’ is not necessarily always better — in many educational contexts, ‘online learning’ is understood as a managerial strategy for reducing face-to-face teaching time and thereby increasing student turnover, rather than having any inherent pedagogical purpose (Clegg, Hudson and Steel 2003; Stirling, Hopkins and Riddick 2010). Any celebration of the emancipatory potentials of digital media is well served also by a critical and grounded engagement with these media as material cultures; this is because they are all too often thought of in such a way as to invite us to ask questions only of what we see when we look *through* the screen, rather than *at* the device.

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