

# Dumpster diving with the professors: e-books, technological disruption, and the persistence of print media

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## Abstract

*Taken at face value, the persistence of print media complicates theories of technological disruption, which Clayton Christensen has argued describe the process by which businesses that rely on old, “sustaining” technologies come under threat and are often displaced by the new. In this paper I offer a rejoinder to such disruption theories using recent developments in book publishing as an example. My purpose is twofold. First, I want to briefly discuss how the uptake of e-books alongside the persistence of print problematises the disruption thesis so as to contribute to the development of more complex models of media history that connects technological innovation more closely to the social. Disruption theses, here, are understood as positing a certain type of ideologically weighted media history in light of Geert Lovink’s insight that digital media tends to be read “into history, not the other way round” (2003). Second, I want to discuss how discussions of technological disruption nevertheless remain a persistent trope in digital technology discourse as part of what Barbrook and Cameron (1996) have called “the Californian ideology”, which brings together the interrelated possibilities of libertarian free markets and the supposed democratising, emancipatory possibilities of digital media. I argue that disruption narratives mask and to some degree stand in for discussion of a far more profound present moment of social and political disruption brought about in part by data capitalism, and to reflect on the role of digital networked media, including print and e-books, in that disruption.*

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## Introduction

I’d like to start with an anecdote, however out of place that might seem. It concerns my cousin, who is retired and who for most of his working life was a professor in a branch of the sciences at a major research institution. He is currently an emeritus professor there so I won’t mention his name. But the story goes like this. Recently he and his colleagues past and present got wind that the library at his research institution was throwing out all its print journals. A date was announced at which point the library journal shelves would be cleared. From that date everything would be online.

On the said date my cousin arrived on campus early, bought a cup of coffee, and positioned himself behind the library where the dumpsters were. To his surprise other colleagues started showing up. They stood around sipping coffee and chatting, eyeing each other off. Before long a worker came out with a trolley carrying plastic boxes haphazardly filled with bound editions of journals. An entire complete bound series of Nature, going back to the first edition, went straight into the skip, followed by my cousin and several other scientists. “We scabbled around in the skip trying to find the copies in among all the other books they’d already thrown out, grabbing things we wanted,” he later told me, “I was chasing the

bound copy for 1955, which is when they published ground-breaking research on the molecular structure of DNA. But someone else got it first.”

Print media is enjoying an unheralded afterlife that cuts across the decades long forebodings of the death of the printed book at the hands of technology such as the cinema, radio, television, and the internet. Since 2012 the rate of e-book sales growth has flattened in most markets and print book sales have increased in Australia and the US. This persistence of print media cuts across straightforward notions of technological supersession that are a dominant trope in discussions about technology, and is suggestive of deeper social relationships between people and technology that deserve further consideration.

Taken at face value, the persistence of print media also complicates theories of technological disruption which Clayton Christensen (1997) has argued describe the process by which businesses that rely on old, “sustaining” technologies come under threat and are often displaced by new “disruptive” entrants who start out by selling cheaper, often technically inferior new technologies at low margins to low profit customers, and who eventually grow to dominate the market. Christensen (2006) has since described the process by which he has elaborated on and refined his original model. Despite these elaborations aggressive versions of the disruption thesis centred on opportunities for profit making dominate business discourse. Business journals such as *Forbes* have argued that businesses must “disrupt or be disrupted”. “Business disruption”, according to *Forbes*, is “not just a passing trend, it’s the new normal” (Ottinger 2013, para. 1). According to venture capitalist Josh Linkner, “We can no longer rely on the past as a game plan for winning . . . Deliberate disruption is the only path to sustainable growth and success” (in Hessman 2014, para. 10). Such discourse owes much to “the Californian ideology” (Barbrook and Cameron 1996), centred on Silicon Valley, which brings together the interrelated possibilities of libertarian free markets and the supposed democratising, emancipatory possibilities of digital media.

This is an ideology lately embodied in iconic “disruptive” firms such as Apple, Amazon and Google. And that is celebrated in the pages of journals such as *Wired* and at conferences such as TechCrunch Disrupt SF 2014, one of a rolling global retinue of TechCrunch Disrupt events from New York to Seoul to London. Christensen has contributed to this discourse. For example, writing with Stuart L. Hart on how low income nations represent the base of a “pyramid” of opportunity for disruptive technology companies, he has said that “Sustainable energy pioneers who focus on the base of the pyramid could set the stage for one of the biggest bonanzas in the history of commerce . . .” (Hart and Christensen 2002, p. 56).

In what follows I don’t seek to countervail theories of technological disruption. Instead, I want to engage with them using recent developments in book publishing as an example. My purpose is twofold. First, I want to briefly discuss how the uptake of e-books alongside the persistence of print problematises the disruption thesis so as to contribute to the development of more complex models of media history that connects technological innovation more closely to the social. Disruption theses, here, are understood as positing a certain type of ideologically weighted media history in light of Geert Lovink’s insight that digital media tends to be read “into history, not the other way round” (2003). Second, I want to discuss how discussions of technological disruption mask and to some degree stand in for discussion of a far

more profound present moment of social and political disruption brought about in part by data capitalism, and to reflect on the role of digital networked media, including print and e-books, in that disruption.

### **Disrupting the disruption thesis**

A subtle rejoinder to theories of technological disruption can be read through the work of media historians such as Lisa Gitelman. As her investigations of media such as phonographs, printed documents and the web, show, the social and the technological interact in ways that exceed received notions of technological supersession (Gitelman and Pingree 2004; Gitelman 2006; 2013; 2014). For Gitelman media is defined by the social and cultural protocols that surround it and is closely implicated in the ways in which people “experience meaning, how they perceive the world and communicate with each other, and how they distinguish the past and identify culture” (2006, p. 1). There’s a drive towards understanding the social and cultural situatedness of media usage in such accounts, and in the work of media historians such as Bonnie Mak (2011) and Jonathan Sterne (2003), that undermines straightforward technological determinist media narratives (see Gitelman 2006, p. 10) and insists on a complex re-reading of the opposition between “old” and “new” media. As Gitelman argues, “all media were once new” (2006, p. 1).

Recent developments in book publishing raise related issues. E-books have in many accounts been predicted to supersede print books. As a more or less representative article in Slate magazine asked in 2014, “What will become of the paper book?” (Agresta 2012). It would meet with disaster, of course. This query sits among a long history of notices for the passing of “the age of print”, such that the presentation of such notices has become a cultural tic (see, for example: McLuhan 1962; Postman 1985; Kernan 1990; Bikerts 1996). Yet this “passing” simply hasn’t occurred. As data from Nielsen Bookscan shows, in the US adult fiction print sales declined by a third from 2009 to 2011 but have since stabilised.

A much smaller decline in adult non-fiction print book sales (which outsell adult fiction roughly 3:2) from 2007 to 2012 has since been arrested by a small but steady increase in sales. Print book sales in children’s books showed a strong increase. In the UK a decline in print book sales from 2008 onwards appears to have levelled off in 2014. In Australia print book sales have grown slightly overall since 2012. In markets outside the west such as India print book sales have grown strongly (Nowell 2015). These small but nevertheless death-defying resurgences in print book sales have taken place alongside a decline in the rate of e-book sales growth. E-book sales appear to have levelled off at around one quarter to one third of the market, lower in the UK, higher in the US. In the UK e-books share of the market by value increased from around 15 per cent in 2012 spiking to just under 20 per cent in 2014, having flattened through 2013. In the US e-book sales grew very strongly from 2010 to 2012 in the US, declining through 2013 and then growing to just above 2012 levels. The rate of growth in e-book sales has fallen by around 80 per cent since 2012. (Nowell 2014).

Publishers and authors now speak of an emerging “hybrid” print-digital environment and a multi-channel market that can be worked to their advantage, where print has become visible as a particular kind of

media technology that skews towards certain audiences while e-books skew differently (Cairns 2015; Mayer 2011; Nowell 2014; 2015). As Alessandro Ludovico has argued, Not only have digitalisation processes failed to kill off traditional print, they have also initiated a redefinition of its role in the mediascape. If print increasingly becomes a valuable or collectable commodity and digital publishing also continues to grow as expected, the two may more frequently find themselves crossing paths, with the potential for the generation of new hybrid forms. (2014, para. 7)

Such developments problematise the disruption thesis. The spectacle of dumpster-diving professors looking for “trophy editions” of discarded print journals suggests patterns of print book usage oriented around ritual, collectability, display, and the totemic status of the print book. As Gitelman has said, “[d]ocuments are integral to the ways people think as well as to the social order that they inhabit” (2014, p. 5). The failure of e-books to displace print, and their role in making print “visible” as a technology, points not to the “disruption” and “passing” of print media but to a post-digital media environment where, per the definition proposed by Andersen et al., “post-digital” describes “the messy and paradoxical condition of art and media after digital technology revolutions” and refuses to recognise “the distinction between ‘old’ and ‘new’ media” as well as the “ideological affirmation of one or the other” (2014, para. 2).

### **Reorganising the social**

Yet the disruption thesis persists. This persistence owes much to the social contexts in which the disruption thesis operates. It is a creature of market capitalism and the veneration of growth, wealth, and private ownership, from the interests of wealth to the ownership of intellectual property. The disruption narrative offers, too, a picture of historical progression and ever-unfolding modernity, embodied in the promise of increased efficiency, better consumer access, and growing profits; an historical progression itself reliant on the distinctions between then and now, and old and new media, working through, as the model of post-digital theory proposed by Anderson et al suggests, a logic of “ideological affirmation” (2014, para. 2). In so far as it offers a politics, this consists primarily of the promise of mobility from one class to the next through the accumulation of wealth via the ownership and mobilisation of disruptive technologies.

If as Gitelman argues, media technology demands to be understood through the lens of the social, then a deeper political analysis of disruption narratives is called for. The “digitalistic worldview”, as Eran Fisher has described it (2010, p. 56), is deeply dependent on disruption narratives since they are consistent with a neoliberal capitalism that prizes instability and flexibility, and where ongoing disequilibrium is understood as an economic good. “Disruption”, as such, figures as an analogue for a Schumpeterian process of “creative destruction” where the economic security of the many is continually sacrificed to economic demands of the few. As Manuel Castells has argued:

The ‘spirit of informationalism’ is the culture of ‘creative destruction’ accelerated to the speed of the optoelectronic circuits that process its signals. Schumpeter meets Weber in the cyberspace of the network enterprise. (2000, p. 215)

Here we can begin to see how disruption narratives tend to operate as a cover for and naturalise a much deeper, clearly political destabilisation of the social brought about not by digital technology — technology has no agency of itself — but by the ways in which digital discourse, not least new media discourse, legitimates certain exploitative uses of such technology as part of what David Harvey has described as the reorganisation of capital on a global scale (1989; 2005). Disruption narratives, in short, operate as a tool in this process. Yet if what Harvey seeks to describe is the emergence of the neoliberal state focussed on the interests of business and markets above those of citizens, then even this is inadequate. As Michel Foucault suggested through his introduction of the anti-statism of the German Freiburg School of “ordoliberalism” to the frame of the analysis, the economic conditions demanded by them in the 1930s, and indeed the current conditions of neoliberalism, reverse the relationship between state and market such that neoliberalism involves “a state under the supervision of the market rather than a market supervised by the state” (2008, p. 116).

M. Patricia Marchak (1993) has outlined how, in the immediate wake of the 1970s crisis of Fordism, the libertarian restructuring of global markets was closely connected to an awareness among the “New Right” of the possibilities of information technology as a tool for the global integration of markets and a shift away from manufacturing to an information-based service economy. Subsequent developments have included the shift of uncertainty and risk from the state and corporations to workers amidst demands for more worker “flexibility”, as enabled by computerised “just in time” delivery regimes, and more recently the proliferation of what might be called “metricated workplaces”, characterised by hyper-Taylorised practices such as the use of worker tracking devices, and digitally-enabled “always on”, around the clock work regimes enabled by home computers and smartphones (Beck 2000; Fisher 2010; Davis 2014). These trends coalesce in the increased reliance of digital corporations on unpaid labour provided by users as part of their interactivity, such that, as Tiziana Terranova has argued, the provision of “free labour is structural to the late capitalist cultural economy” (2000, p. 53). Such practices rely on what Rita Raley has called “dataveillance” (Raley 2013), or what Zygmunt Bauman has described as a “post-panopticon” surveillance culture, based around privatised, opt-in modes of surveillance that enable users to express personal identity and desires, rather than top-down state-driven, Benthamite forms of surveillance designed to control transgressive bodies and desires (Bauman 2000; Bauman and Lyon 2013). A further related trend is privatisation and the shift of ownership of the commons into corporate hands, which as Mark Andrejevic (2007) has argued, can be seen in the commodification of data gathered from users of digital media is part of a new logic of enclosure where previously uncommodified forms of the commons are marketised.

These undemocratic uses of digital media sit somewhat paradoxically, yet relatedly, among more hopeful possibilities. To accept Gitelman’s proposition that technology has no historical agency of itself, and her argument, made with Virginia Jackson, that there is no such thing as value neutral raw data, since data is never discovered; it is produced (Gitelman and Jackson 2013, pp. 1–14), is to clear the way for more optimistic narrativisations of media futures. “Convergence culture”, as Henry Jenkins has described the present state of coalescence between “old” media and “new”, is driven from below as well as from above, by consumers who seek to use “different media technologies to bring the flow of media more fully under their control and to interact with other consumers” (2006, p. 18).

Books are ever more closely integrated with these neoliberal circuits of digital meaning, as agents of surveillance, free labour, and the commodification of the commons. E-book platforms such as Amazon's Kindle, Apple's iPad, Kobo, and Adobe's e-reader, for example, track their users, registering such things as what they read, how quickly they read, how often they read, how much they read in each sitting, how many books they read, and how far they get through each title (Alter 2012; Digital Bookworld 2014). In the case of Amazon's Kindle, such data is added to a user profile that includes all their web-browsing on sites owned by Amazon. Users of Amazon's Silk web browser, available on Kindle Fire, by default send their browsing data, which includes information about browsing on non-Amazon sites, to Amazon via a proxy server (Brosnan 2011).

Such practices are part of a digital regime where readers perform the work of market research for free. Data provided by users who contribute their labour to book reviewing sites such as Goodreads.com and Amazon.com is similarly harvested for commercial gain, onsold to publishers and other marketers (Leber 2013). Similarly, the labour of self-published e-book writers provides an important plank in the commercial strategies of publishers such as Amazon, even though such writers generally make little income (Bury 2013)

Even as such usage suggests the emergence of what Jenkins calls "participatory culture" (2006, p. 3), such users are part of a wider-spread commodification of reading in the digital age. The commercial availability of reader data is in turn changing the way publishers operate (Nowell 2015). Romance, for example, is the leading e-book genre, which has seen a round of takeovers and a new emphasis on romance publishing (Greenfield 2014; Senior 2012). Such developments are part of a wider turn among publishers towards more commercial genres, bought about by the pressures of shareholder ownership, marketization, and a turn away from "cultural mission" publishing (Greco 2013, p. 1) towards "big books" at the expense of generally low profit pursuits such as literary publishing and other forms of "midlist" publishing (Thompson 2012, pp. 188–222).

The integration of books and market capitalism predates "new media". As Ted Striphas has argued "books were integral to the making of a modern, connected consumer culture in the twentieth century" (2011, p. 5). Book publishing was one of the first large scale industries, at the forefront of developing mass markets and at the forefront of the "the rationalization and standardization of mass production techniques" through the uptake of new print technologies. With this went "new ways of organizing labor practices, class relations, and bodily habits within and beyond the print shop" (2011, p. 7). The advent of e-books, Striphas argues, is best seen as part of an historical continuum such that books today form "a key part of consumer capitalism's slow slide" into what Henri Lefebvre has called, a "society of controlled consumption" (2011, p. 5), whereby mechanisms of cybernetic control, programming and obsolescence become integral to everyday life (2011, p. 180–2).

Nor is it possible to point to a moment when books became "new media". Print books have for several decades been "born digital", through the widespread use of word processing and desktop publishing software since the 1980s, and subsequently through the digitisation of stock control and supply chain

management, the electronic tracking of retail print book sales through services such as Nielsen Bookscan, and the role that books played in the pioneering of online retail with the founding of Amazon.com. Digital media, as such, isn't "new" or "disruptive", so much as it is part of an ongoing continuum in the close integration of publishing with the acculturated logics of data capitalism.

Here we can go back to the professors. They, like all academics, work in an increasingly data-driven professional world. This is the world of tabulated workload formulae, annual publication point quotas, citation points, completions, impact factors, h-indexes, teaching scores, research ratings, and competitive university rankings. Data, in this world, can be very useful as a research tool. Indeed, much of every research academic's work is a variation on dumpster diving: trawling through archives of nature, libraries, companies, institutions, and individuals, much of which is now presented as code and made accessible by digital technologies. Yet this is an increasingly demoralised world in which scholarship has often become a displaced rescue process for a mislaid humanism. Rosalind Gill has outlined the contemporary state of academic precarity, in which a large and increasing amount of work is performed by workers who are unpaid adjuncts, casualised or on short term contracts, where staff are subject to round-the-clock labour exploitation, perform ever more invisibilised free labour — three months a year for salaried academics in the UK — and work under ever-tightening regimes of surveillance where, as Roger Burrows has argued, an academic in the UK can be measured and ranked on over 100 different scales (Gill 2009; 2014; Burrows 2012).

The spectacle of dumpster-diving professors looking to rescue bound journals from their fate is a reminder not so much of the nostalgia for and persistence of print, or of the exigencies of technological disruption, as of the deeply embedded social and ideological contexts in which media operate. The challenge facing media scholars is to unpick popular understandings of the meaning of digital media so as to rescue digital technology from the retrograde political projects and narratives that surround our uses of it.

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