

PUBLIC SERVICE MEDIA UTILITIES: RETHINKING SEARCH ENGINES AND SOCIAL NETWORKING AS PUBLIC GOODS

Abstract

Far from being relegated to history's dustbin by technological developments, a public service rationale is as pertinent as ever in the digital era, the capabilities of which lend themselves to the development of public service media. This article explores calls to regulate digital media platforms like Facebook and Google as public utilities, but concludes that, with the exception of regulations to facilitate user mobility and platform/network neutrality, it makes more sense to focus on the development of a robust public service media sector for the digital era. Such a sector would broaden the scope of public service beyond content production and distribution to include social media, search and other information-sorting and communication utilities. The article considers the rationale and scope for such a program, arguing that an era of information glut poses challenges that are distinct from those associated with the broadcast era of relative content scarcity.

Offloading books

Not long ago, when I was sitting on a university committee considering the issue of how best to deal with library books that no one had checked out in over fifteen years, I asked a representative of the university library that had made the decision to 'pulp' the unused volumes whether it might make sense to scan them first, just in case. The library had considered the option, I was told, but had decided that it would be cheaper to wait until Google did the digitising for them (presumably using still extant copies of the books stored elsewhere). The answer took me by surprise, not least for its implicitly self-defeating assumption that eventually the tasks of a public university library would be more efficiently and effectively undertaken by a foreign commercial organisation. Perhaps Google might end up scanning some of the volume (but perhaps not – the university was not partnering with Google on its library project at the time); even if it did, there was no way of knowing in advance what the terms of access would be, how long these would last and indeed whether the archive would be protected from the vicissitudes of Google's own economic fortunes (which at the time were admittedly looking quite secure).

It was intriguing and a bit scary to see a representative of the public sector – and, presumably, the public interest – so willingly confer the public trust to a private, for-profit, overseas entity. Once upon a time, this would have been all but unthinkable – after all, the whole point of public libraries was to address the shortcomings of a

market-driven system. We have public libraries – and, by extension, public university libraries – because we believe the public interest is well served by making books (and other forms of culture and information) available to more people than those who can afford to buy every book they read. Presumably, this is because we believe there are benefits – what economists would term ‘benefit externalities’ – to having as literate and well-informed a populace as possible. In other words, we recognise that the public interest is well served by ensuring that access to stored knowledge and culture is as widely available as possible. It is perhaps a sign of the times that it has become so easy, in some quarters, to imagine that this function ought to be turned over to a company like Google – which, as Siva Vaidhyanathan has put it, ‘is an example of a stunningly successful firm behaving as much like a university as it can afford to’ (2011: 187).

In a world in which universities are facing tight budget constraints, and in which Google has become the de facto information organiser for the online world – the platform on to which much of our knowledge and culture continues to migrate – the temptation to offload aspects of the stewardship of public knowledge on to the private sector is strong and seemingly unavoidable. After all, libraries are not providing catalogues to the information they make available through their provision of internet access – that is already Google’s (or some other browser’s) job. As Vaidhyanathan puts it, ‘when Google does something adequately and relatively cheaply in the service of the public, public institutions are relieved of pressure to perform their tasks well. This is an important and troubling phenomenon I call *public failure*.’ (Vaidhyanathan, 2011: 6)

The university library’s decision to hope that Google might one day digitise its unused books – a hope that helped absolve it of the responsibility of preserving some part of an archive, no matter how disused – represents a relatively small-scale example of public failure, which occurs when ‘instruments of the state cannot satisfy public needs and deliver services effectively’ (Vaidhyanathan, 2011: 6). This is not to blame the university – which had to make the best use of its scarce resources – but rather to point out the structural pressures that make such a decision seem optimal. It is also to invoke the spectre of a vicious circle of public sector de-funding: when Google makes significant headway in its project to digitise the available store of written works, will this be taken as a rationale to continue to defund the archival functions of public libraries – university and otherwise (‘let Google do it’)? And, if so, how are we to understand the hazards of such a decision, given both the precarious nature of the online economy and the Google business model, which relies in part upon detailed monitoring of the information consumption and browsing habits of its users?

Such questions push us in the direction of asking how to address the fact that Google is being treated as both a public utility and a public service provider without being either. The recent literature – both commercial and academic – has recognised the former development, but paid scant attention to the latter – perhaps a symptom of the fate of public service media more generally in recent years. Thus, for example, Benjamin Barber (2011) argues in *The Nation* that:

For new media to be potential equalizers, they must be treated as public utilities, recognizing that spectrum abundance (the excuse for privatization) does not prevent monopoly ownership of hardware and software platforms and hence cannot guarantee equal civic, educational, and cultural access to citizens.

In a similar vein, Zeynep Tufekci (2010) argues that many online services are natural monopolies that underwrite the ‘corporatization of social commons’ and the ‘privatization of our publics’. Although this formulation invokes the language of public

service utilities, it also pushes in the direction of concerns associated with public service media in particular. This article takes up both strands of the argument, exploring the implications of treating commercial media as though they are public utilities and considering the applicability of public service rationales to the realm of digital media in the broadest terms as possible – that is, thinking beyond the online presence of public service broadcasters to consider the possibility of public service search engines, social networks and other applications.

Public service media in the digital era

This article takes as its starting point Graham Murdock's provocative claim that 'Public Service Broadcasting is a project whose time has finally come both philosophically and practically' (2005: 213) – although it would push further, replacing 'Public Service Broadcasting' with 'Public Service Media.' At first glance, this seems a strange thing to say in an era more commonly characterised by the apparent decline of public service broadcasting in many quarters, thanks to the allegedly diminishing role of spectrum scarcity, the rise of neoliberal economic regimes that pit public service broadcasters against new forms of commercial competition, and the vexed character of concepts such as 'the public' and, more pointedly, 'the public interest'. Murdock himself notes 'a swelling chorus intoning the last rites for public service broadcasting and pressing for a fully commercialised communication environment' (2005: 214).

What, then, might it mean to suggest that, even in sheerly *practical* terms, the idea of public service media has come into its own? One thing it might mean – although Murdock does not dwell on this – is that the distribution platform associated with networked digital media lends itself in important ways to a public service model in which the content has been subsidised in advance and does not rely on either commercial strategies for revenue generation or on tight control over distribution channels. We might stress the following characteristics of online media as fitting well with a public service model: its archival function, the ability to engage easily in time-shifting, location-shifting and platform-shifting, the relatively low cost of data storage, distribution and fault-free digital reproduction (which, of course, has been the bane of commercial content distribution online) and the flexibility of access (via a growing number of interactive digital devices). By contrast, commercial broadcast media traditionally have relied upon the ability to control audience exposure in space and time (and on device) in order to reliably monitor, track, segment and target audiences. Although they are developing new techniques of customised advertising, these have so far proven much less profitable than traditional forms of mass media advertising – that is, the rate that can be charged per user tends to be much lower (e.g. see Karp, 2007). While Google has become immensely popular, for example, media darling Facebook – the poster child for social networking – continues to struggle to turn a profit, despite its popularity and huge user base (Shinal, 2012).

Perhaps the biggest threat of the internet to commercial online content providers – file sharing – actually works as a benefit for public service media, which need not monetise their content further once it is produced, and can rely on open distribution channels and the assistance of the public to distribute content. Consider, for example, the difference between a commercial radio producer and a public service broadcaster like National Public Radio or the BBC. If the former takes its content online, it needs to figure out how to control the distribution in ways that continue to generate revenue and that respect licensing agreements. It also needs to develop strategies for thwarting unauthorised recording, reproduction and distribution. Finally, it needs to ensure a

‘deliverable’ audience in order to earn advertising revenues. This means, in many cases, not making the archive available (so as to avoid competition with current programming), seeking to find ways to control access geographically (so as not to allow the circulation of commercial content to unlicensed regions) and developing effective forms of copy protection. It also means developing or relying upon technologies for gathering detailed information about viewers, and finding ways to use this to sell targeted and customised advertising. Tracking and targeting audiences is becoming a costly endeavour on its own – even as the falling cost of storage attempts to keep pace with the increasing amounts of data collected.

By contrast, the internet lends itself to a model in which there is no need to recoup production costs or to continue to ‘monetise’ content once it has been produced. National Public Radio in the United States makes many of its radio shows and their full archives available globally for free download; it does not need to control distribution or find ways of matching advertising to audiences located in varying times and spaces: once the content is out, it is available to all, free of charge. Moreover, the portability of digital content means that listeners can use a range of devices from digital radios to MP3 players, tablets and personal computers to listen to the content at their convenience – readily transferring files between devices. Perhaps not surprisingly, NPR and the BBC have thrived online. As Murdock notes: ‘The BBC’s public website is currently one of the most trusted and widely used Internet sites in Europe.’ (2005: 229) Independent, not-for-profit media producers like Democracy Now! in the United States rely on free content distribution to expand their reach and influence globally. Democracy Now! invites broadcasters to download and rebroadcast its video and audio news shows, providing an audience much larger than it could have hoped to reach in the pre-internet era.

In somewhat more general terms, commercial broadcast media remain more reliant on the logic of flow – in time and in space – whereas online digital media lend themselves to the logic of search and surf. Take, for example, the development of commercial TV online, which has framed itself largely as an adjunct to free-to-air and pay TV models of distribution. Commercial network internet sites may sometimes offer ‘catch-up TV’ – recent episodes of currently airing programs – but they are much more careful about making full archives of past programming available, even if this programming is produced in-house. In theory, they could make such programming available, digitally inserting new advertising, but this would threaten to fragment their audiences by competing with on-air offerings that generate much higher advertising revenues. Similarly, commercial broadcasters rely upon the popularity generated in first-run markets to help boost revenues for future sales in global markets. This provides an incentive to control the spatial flow of programming, rather than to make shows available contemporaneously worldwide. These forms of flow help create and impose the forms of scarcity upon which commercial forms of content production rely.

By contrast, in their current configuration, digital media do not lend themselves to the forms of regional control that broadcasters attempt to impose upon them. Consider, for example, the attempts of commercial network sites to block distribution of online content to unlicensed regions – attempts repeatedly thwarted by the use of proxy servers and illegal file-sharing sites. It is true that public service broadcasters retain a sense of national identity that sometimes leads them to restrict the global distribution of their content – but this is done largely in the interest of finding ways to monetise the distribution of this content globally (or, in some cases, to protect content purchased from commercial producers) – in other words, to graft a commercial model on to their public service function.

In somewhat different terms, digital media confound Harold Innis's (1999) famous distinction between the biases of space and time: broadcasting need no longer be as ephemeral as it once was; print can travel through the ether alongside TV and radio programming. The result, combined with the two-way character of digital data flow, is an increasingly familiar mode of information consumption that makes it possible to consume contemporary media in conjunction with the archive – to read a news article, for example, that includes reader responses that link to online audio or video elsewhere on the internet. Information surfing refers not just skimming across different media outlets and sources, but also speeding (virtually) through time and space – directed, perhaps, by different modalities of filtering and search: links installed in online articles or embedded in tweets, search terms and collaborative filtering algorithms. The logic of search and surf spans the archival character of online content, connecting what Hallvard Moe (2008) describes as the logics of dissemination and dialogue – broadcasting and discussion, viewing, listening and interaction all combined.

In other words, it is not so much the public service aspect that has run its course, but the attempt to limit that aspect to broadcasting. To imagine the role of public service media in the digital era is to imagine a full range of utilities that span the realms of broadcasting, social media and search. This is what Moe has in mind when he argues that while public service media in the digital era must embrace 'existing terminals like PCs and mobile phones [and, TVs]', they must also make use of new technologies for archiving information, networking, conversing and navigating the information landscape (2008: 330). In what sounds, these days, like a utopian manifesto, Murdock similarly argues for the need to:

abandon our old analogue maps of the cultural industries which depicted a series of stand-alone institutions separated by incompatible technologies and compile a digital chart showing public broadcasting as the central node in a new network of public and civil institutions that together make up the digital commons, a linked space defined by its shared refusal of commercial enclosure and its commitment to free and universal access, reciprocity, and collaborative activity (2005: 230).

Public utilities and public service

Such visions for an integrated digital commons serving the traditional goals of public service media stand out because they are so far removed from the general tendency towards privatisation and commercialisation that has characterised the development of the World Wide Web and many of its 'killer apps', from email to Facebook. Indeed, the prevailing tendency has been to treat the internet as the harbinger of an era of information abundance, in which the rationale for public service media – crafted in an era of bandwidth scarcity – has lost its purchase. This is perhaps particularly ironic in the case of a medium that started out as a government-funded information-sharing system. It is important, however, to look beyond the horizon of scarcity to consider the possibility that a context of information glut poses its own challenges to the media's role, providing the preconditions for what Paddy Scannell describes as 'forms of democratic life in public and private' (1989: 164). Several theorists (e.g. Turkle, 2011; Murdock, 2005; Sunstein, 2009) have expressed concern over the forms of fragmentation and nichification that allegedly threaten the means whereby 'the common knowledges and pleasures in a shared public life are maintained as a social good for the whole population' (Scannell, 1989: 164). Nor is it clear that the multiplication of commercial media outlets in a 'post-scarcity' media era enhances the ability of the media to hold

power accountable: volume does not necessarily guarantee diversity, accountability or critique. The challenge we face in the current conjuncture is not simply how to import public service goals developed during a context of bandwidth scarcity into a post-scarcity era, but how to reframe these goals to reflect a changed media environment.

It is perhaps testimony to the power of the promise of the new that the relatively well-developed critique of the political economy of the media in the late twentieth century tended to fall by the wayside with the rise of commercial digital media. This is in part a function of the historical and institutional formation of digital media studies, which emerged in close partnership with the new media sector, often uncritically sharing its enthusiasms and promises (and personnel). The eclipse of media critique (and critical political economy in particular) coincided with media studies trends, including a celebration of forms of pop-culture fandom facilitated by new forms of mediated interactivity and the rejection of Marxist-inflected critiques of political economy as reductionist and totalising. Moreover, interactive digital media promised to address some of the main concerns about the mass media: their centralised, top-down, one-way character, and the fact that they were characterised by scarcity and high barriers to entry. Media oligopoly became a concern precisely because only the privileged few had access to media production resources and distribution channels. The internet promised a relative end to scarcity, both in the realms of distribution and production, and was thus greeted as empowering and democratising. As Howard Rheingold, who popularised the notion that the internet could revitalise a functional sense of community in an increasingly atomised society, put it: 'The political significance of computer mediated communication lies in its capacity to challenge the existing political hierarchy's monopoly on powerful communications media, and perhaps thus revitalize citizen-based democracy.' (1993: 14) Exemplifying what Vincent Mosco (2005) has described as the myth of the digital sublime, futurist Derrick de Kerckhove (among many others) dubbed the new technology revolutionary:

In a networked society, the real powershift is from the producer to the consumer, and there is a redistribution of controls and power. On the Web, Karl Marx's dream has been realized: the tools and the means of production are in the hands of the workers. (quoted in Barney, 2000: 104)

It turns out that claims about the death of scarcity and the elimination of barriers to entry were premature. At the platform level of the World Wide Web, it is true that – at least for the moment – anyone with internet access can make their original content available online (to anyone else with access). However, the infrastructure – the servers, the network backbone and the local service providers – remains largely in the hands of a few large corporations, some of which are pushing for greater control over the content that passes through their servers and cables. Along with Wu's (2010) examples of 'information monopolies', this pressure highlights the misleading character of 'end-of-scarcity' claims – at least at the level of distribution.

At the level of content, survey research has indicated that the most visited news sites, for example, tend to be those owned by major media corporations (Pew Research Center's Project For Excellence in Journalism, 2012) – but this is not a structural attribute of the network. On the contrary, the defining attribute of the internet at the level of content production is information overload, which carries with it its own set of potential pathologies. Perhaps the most often invoked of these is that of fragmentation and nichification, and the forms of informational and political polarisation with which these have come to be associated (e.g. see Sunstein, 2001). Paradoxically, information

glut carries with it the challenges posed by a different kind of scarcity: that associated with the difficulty of searching tremendously large databases and archives. Those who control what might be described as the access apparatus – the ability to meaningfully sort through huge databases and to organise them in meaningful and useful ways – act as gatekeepers to the information trove.

Thus companies like Google, Yahoo, YouTube and Twitter serve, among other things, to provide the scarce resource of organisation and search, allowing us to navigate a flood of websites, Tweets and videos. While those with access to the internet can access a range of content, they cannot – at least without a high level of expertise and extensive material resources – create their own organisational utilities. As Wu (2010) points out, platforms like Twitter and YouTube are proprietary, and can only be organised by those who control the platform. The result, not surprisingly, is concern over the interests at play in information organisation: is Google using its algorithm to skew results in ways that accord with its business model? Do Twitter's trending topics accurately reflect the preoccupations of its users or other imperatives associated with the company's business model? Eli Pariser (2011) notes that Facebook and Google shape the information environment of their users in accordance with commercial imperatives rather than, say, using their algorithms for ends more in keeping with promoting citizenship and public deliberation. To put it simply, there is no neutral organisational scheme, and by entrusting the organisation of online information resources primarily to commercial entities (as opposed to, say, public service entities), we have already selected a default imperative for our digital information environment: commerce, marketing, profitability.

Ceding the search and sort algorithms to the commercial sector is a recipe for a market monoculture. There may be plenty of alternatives, but they will be circumscribed by marketing imperatives, posing similar challenges to those that public service media were crafted to address and creating new ones associated with nichification and the commodification of personal information. The ready embrace of digital platforms by public service media, and the resulting uptake by users, give the lie to the notion that the model has itself become obsolete or outdated. However, there is need for an expanded sense of the possibilities – one that might burst the constraints of the market-driven model that has colonised the digital imaginary.

Public utilities and public services

One attempt to reconfigure the digital media environment in accordance with public service goals has sought to adapt the regulatory rationale for public utilities to the internet. As Thierer notes, 'calls for public utility-style regulation of social media platforms are growing', ranging from traditional economic concerns about natural monopolies to questions of privacy, censorship, reputational harm, network neutrality, and information storage and curation (2012: 7). Tarleton Gillespie (2011) highlights the way in which imperatives can be baked into the opaque algorithms that organise our digital information environment for us. He notes that: 'As more and more of our online public discourse takes place on a select set of private content platforms and communication network, and these providers turn to complex algorithms', it becomes increasingly important to understand that 'these algorithms are not neutral ... they encode political choices and ... frame information in a particular way'.

In keeping with the public utility rationale, services like Gmail, Facebook and Twitter might also be argued to constitute a form of natural monopoly – at least insofar as they create walled information gardens, making it difficult or impossible to transfer stored data and connections to competing platforms. Tim Wu (2010) has coined the

term ‘information monopolies’ to describe this distinctive formation – one based not so much on barriers to entry as on the accumulation of stored data and the barriers that make it difficult for users to migrate to different services. Such a formulation is perhaps borne out by the high rate Twitter has been able to command for exclusive access to its ‘firehose’: the real-time stream of all tweets posted around the world. Based on this formulation, Wu argues for the importance of regulations to de-concentrate information power in the digital media industries by ensuring that ‘those who develop information, those who control the network infrastructure on which it travels, and those who control the tools or venues of access must be kept apart from one another’ (2010: 304).

The discussion of regulation has been complicated by the shifting relationship between content, service and pipeline. In the heyday of the mass media, the public service agenda settled upon broadcasters who controlled both content and distribution. By contrast, different sets of regulations were put in place for other forms of non-media public services. Still another set of regulations applied to information conduits such as mail and telephony, which were supposed to be content neutral (more or less). In the digital era, the boundaries between service, ‘pipeline’ and content are becoming increasingly blurred. Is Facebook a service, an information pipeline or a content provider? What about Google? The distinction between mass and person-to-person media breaks down, as does that between search and content – and those between information organisation, communication and dissemination.

Given these changes, and Thierer’s (2012) objections to classifying commercial digital services as natural monopolies (they are ‘free’, and take place in an environment with a high level of competition), the public service media route may look more promising – at least in theory – than the attempt to regulate commercial companies as public utilities. At the same time, public-interest restrictions on commercial entities to enhance competition do seem in order, including mandated transferability of user-created data (from, say, Facebook to a competing platform), network neutrality, API neutrality and the ban on vertical integration proposed by Wu (2010).

Public service networks?

The virtue of Moe’s (2008) and Murdock’s (2005) arguments for the expansion of public service media to compete with commercial forms of search and networking is that they open up the field for imagining and expanding the scope of such a sector. Why not consider the possibility of a public service social networking platform – one freed from the commercial imperatives that require Facebook to engage in detailed tracking practices that greatly expand its infrastructure needs, which in turn require it to more aggressively ‘monetise’ its user base? Why not imagine the possibility of a well-crafted public service search engine whose algorithms are driven by the goal of creating a more informed citizenry, rather than one more likely to click on advertising links or visit commercial sites? The history of public service broadcasting demonstrates the ability to build upon and transform information technologies and practices pioneered by the private sector, while that of the internet provides a precedent for the productivity of state-funded communication resources.

At the same time, there are obvious political and practical limitations to the broad expansion of a public service media sector during a time defined by government budget-cutting and broad-ranging austerity measures in many nations. Developing a robust public service alternative would likely require a change in public sentiment and an about-face by policy-makers. Perhaps growing concern over, and coverage of, the forms of data collection and mining associated with the commercialisation of the

internet might start to push in this direction. However, the private sector has developed a well-established advantage in search and networking utilities, and is not constrained by national boundaries, markets and constituencies. Historically, public service broadcasting is largely a national project – although there are instances of regional forms of content and resource-sharing. Entities like NPR and BBC needn't make their content available internationally over the internet, yet they do (sometimes on a limited basis) – in part to service citizens abroad and in part as a service to a broader, global public (again because the economic model does not require the content to be 'monetised' every time it circulates). However, public service models for search engines – and especially social networking – would likely function poorly if made available only on a national basis (although there are certainly examples of social networks and search engines that function primarily on a national level). As in the case of content provision, it is possible to imagine their being funded nationally and yet made available internationally. Developing public service media that function internationally might also entail national partnerships that have precedents in other forms of international collaboration on public service initiatives (such as, for example, UNESCO). Social media platforms are less expensive to support when they are non-commercial, and therefore freed from reliance upon infrastructures for meta-data-storage, ad-delivery and targeting. In the case of Facebook, for example, the information posted by users is much smaller in volume than the amount of meta-data collected about users and their behaviours for marketing purposes. As in the case of broadcasting, non-commercial services could be more user-friendly: pages would load more quickly without having to wait for myriad tracking and customisation sites to populate the ads, and without the clutter of pop-ups, roll-overs and interactive ads clamouring for attention, or the need to fragment information so as to require more clicks and thus more advertising opportunities. This is not to say that non-commercial alternatives could displace or replace the private sector – merely offer an alternative that exploits the advantages for public sector media and communication offered by the internet.

In keeping with such a vision, it is perhaps time to build upon existing initiatives by public service broadcasters to imagine a broader series of interconnections between media-centred domains that serve the public interest: public service broadcasting, libraries, community centres, public museums and so on. In the digital era, it will be important to bring together functions of information transmission, deliberation and the archive. If public service broadcasters are one starting point for constructing a wide-ranging model of public service media, the public library system (to return to the concerns with which this article began) is another. One of the constraints facing public libraries in the digital era is the enforced scarcity associated with what looks like an increasingly outdated economic model. Libraries have the capacity to make digital copies of all the e-books they hold available to anyone with an internet connection, but they are prevented from doing so in many cases by a system of rights developed in an analogue era.

Why not imagine the possibility of folding at least some forms of print, music and multimedia production into the public service model formerly associated with broadcasting – while also adjusting the terms of copyright to ensure that market-generated content enters after a reasonable term? Rather than treating Google as a public utility or a public service, when it is neither, it makes more sense to imagine what it might mean to develop a public service media sector that addresses the forms of public failure that have led to reliance on Google. We do not have to imagine that Google will be going away any time soon in order to develop a digital consortium of public libraries to,

for example, create a public digital book archive (as France did, when faced with the prospect of relying on Google for its literary archive). If we were told, at the dawn of the internet era, that we were building a huge commercial network that would allow us access to new vistas of information and new possibilities for self-expression and communication – but that in exchange we had to agree to the wholesale commodification and commercialisation of our communication and information environments – we might not have assented so readily to wholesale privatisation of the network and the forms of public failure it enabled. Perhaps it is not too late to avoid total capitulation.

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