



The Quiet Agglomeration of Data: How Piracy is Made Mundane

JONAS ANDERSSON

Södertörn University, Sweden

This article conceptually outlines P2P-based file-sharing as a totality, a mass utility, and a backdrop to everyday cultural life. It elaborates on a recent study of Swedish file-sharers to sketch some important constituents of what would constitute a “piracy culture.” It shows that the actual file-sharer argumentation is not fully synonymous with established notions of “piracy” but rather reveals the complexity of the phenomenon and how the discourse invoking it relies on modes of justification that are not entirely commensurable. Moreover, the file-sharer rhetoric is contingent on a range of entities and infrastructures that condition actual usage. Noting the institutionalized, semi-anonymous, and depersonalized elements to file-sharing, I propose a different interpretation than regarding it as a “gift economy” like the tight-knit communities Mauss described in 1923. Instead, I propose a metaphor borrowed from Titmuss’ example of blood donors that acknowledges the perceived “need” for culture and the associated “right” to access content that file-sharers are exercising.

Introduction

This article critically examines the notion of file-sharing as “piracy” by applying the metaphor of blood donation instead of the person-to-person gift-giving metaphor found in a range of recent studies (Currah, 2007; Giesler, 2006; Skågeby, 2010). My research looks at how Swedish file-sharers justify their own media use in the face of the activity’s portrayal as a deviation from the conventional acquisition of media content. File-sharing sites like The Pirate Bay (TPB) are often depicted as antithetical to “mainstream” media distribution and circulation, especially given the confrontational rhetoric of the actors involved (cf. Andersson, 2009). Nevertheless, TPB is to some extent a commercial operation, and the popularity of BitTorrent (BT) and so-called one-click hosting (1CH) websites suggests that these currently

Jonas Andersson: jonas.andersson@sh.se

Date submitted: 2011-03-31

Copyright © 2012 (Jonas Andersson). Licensed under the Creative Commons Attribution Non-commercial No Derivatives (by-nc-nd). Available at <http://ijoc.org>.

emerging digital ecosystems need not be antithetical to commercial enterprise (cf. Andersson, 2012; Tan, 2010). From the viewpoint of the globally connected Internet user, both BT hubs and 1CH sites are highly resilient—despite occasional local filters and crackdowns—for a range of reasons:

- *The ease of bypassing local filters.* For example, the Danish attempted to filter TPB in 2008 by modifying the Domain Name System, but this did not block Danish users from accessing the site (EDRI, 2008). Further, Internet users can avoid being traced by encrypting and masking their traffic through a virtual private network (VPN).
- *The difficulty of shutting down file-sharing hubs.* On May 31, 2006, Swedish police raided the Web-hosting company PRQ in order to close down TPB and affiliated sites. However, TPB resumed operations three days later.
- *The elusive nature of Web distribution.* The Internet is a highly resilient infrastructure (a radical form of decentralization was built into TCP/IP from the beginning), and legal control of its transnational networks is impractical (Post, 2009).¹

The BT hubs and 1CH sites I refer to in this article can be categorized as follows:

- *open (public) BT indexes trackers*, e.g., TPB, Isohunt, H33t, EZTV;
- *closed (private) BT indexes trackers*, e.g., Karagarga, Oink (closed down in 2007), What.cd;
- *1CH sites*, e.g., Rapidshare, Mediafire, Megaupload.

Over the 10 years since the demise of Napster, older applications and protocols have been replaced by newer ones. Taken as a whole, the file-sharing realm is thus indicative of an emerging condition in its own right. This article explore file-sharing from this perspective, envisaging file-sharing as a utility—a vast, aggregated, continually changing, globalized “pool” of content, penetrable by either searching or browsing—rather than as a system primarily based on friend-to-friend exchange made accessible through local personal connections or communities. Notwithstanding the prevalence of online communities, a vast amount of file-sharing takes place without users having to subscribe to, or even make contact with, communities or individuals in the online realm. The high-tech gift economies of the Internet appear primarily to accommodate the overall efficacy of networks, rather than being used for close-knit, communal purposes (Barbrook, 1998). Leyshon (2003), having observed early P2P services like Audiogalaxy and Gnutella, in fact defines them as “inverse” gift economies, since “objects are not actively ‘given’ by one actor to another” (p. 554).

¹ Reasonably severe attempts have been made, such as the crackdown on TPB and the globally coordinated raid of Megaupload, led by the FBI, aided by New Zealand police forces (Williams, 2012). In late 2011, the Swiss government had reported that their comparatively liberal Internet regulation would be sustained (Lee, 2011), effectively allowing services like Rapidshare to remain operational.

These hi-tech gift economies should be seen as institutional arrangements that enable actors with needs or desires to “take” from those with resources, albeit at no cost to the latter, because of the nature of digital reproduction (ibid.) Of course, as these networks are all intermeshed with other online and offline networks—hacker spaces and the like—it can be argued that apparently “weak social ties” are interspersed with friendship networks, both online and offline, consisting of “strong ties.” For instance, when Twitter acquaintances share links to copyrighted files, this is not really a case of “stranger-to-stranger exchange” but a mode of exchange more reminiscent of early P2P networks such as Napster and chat applications such as IRC. This article focuses on modes of exchange that are enabled by proxies and hubs, such as the BT indexes/trackers and 1CH sites mentioned above, which in effect make copyrighted material available as if “on tap,” much as bulletin board systems acted as repositories of copyrighted material in the past.

This article is based on fieldwork conducted in 2006, mainly consisting of interviews with Swedish file-sharers, some of whom were affiliated with Piratbyrån as forum moderators. All names are pseudonyms. Unfortunately, there is no room here to expound on the role of the now-defunct Piratbyrån, the Kopimi movement, or other instantiations of articulated pirate politics (most clearly manifested in recent years by the Pirate Party movement). Nor will I elaborate here on the Pirate Bay trial, its aftermath, or its structural foundations; see Andersson (2011) for an overview.

Cornucopia of the Commons

Online file-sharing is often compared to the concept of gift giving that Mauss elaborated 90 years ago (Currah, 2007; Giesler, 2006; Skågeby, 2010).² I argue that this metaphor is not entirely applicable and should be complemented by Titmuss’ (1971) example of blood donors, as contemporary file-sharing flourishes mostly from the exchange of resources between millions of strangers, principally through “weak” ties (Currah, 2007, p. 474). Like blood donation, online file-sharing requires large-scale infrastructure and considerable institutionalization, where a depersonalized entity is established and made operable primarily thanks to the ostensibly altruistic behavior of its participants, whose incentive lies in a belief in the efficacy of the overall system rather than in direct monetary gain.

In the following, I will thus outline how P2P-based file-sharing can be thought of as a *mass utility*, then discuss user motivations and justifications on a more individual, local, situated level. Importantly, this mass utility springs from the harnessing of individual opportunism: users acquire content by participating in the sharing on a vast scale. The number of participants in the BT network is literally countless. Having noted that individual opportunism drives the sharing, one must also keep in mind the deferral of responsibility the infrastructure allows. File-sharer argumentation is always relational to an entity bigger than the individual, preexisting before he or she joins the network. File-sharing depends on infrastructures that are conditional—or prescriptive—to the actual usage.

² See also the overview by Bauwens (2012), who cites several theorists that problematize the notion of gift giving.

Mauss referred to ways of construing value or utility that were barely recognized in mainstream economics at his time of writing. He opposed utilitarianism, calling the whole notion of “self-interest” into question (Graeber, 2001, p. 151). He noted that sometimes gifting ran parallel with trading and thus was embedded in a much bigger general economy. I will not dwell on Mauss’ concepts, except to note that contemporary file-sharing differs from the settings that he described, in that it is in itself embedded in a general economy directly premised on individual opportunism and pleasure maximization. The online economy is a meshwork of interconnected public and private resources, many of which, earlier held as discrete objects, can now be transformed into digital, duplicable form at little expense to participants. One thing I noted in my fieldwork was how often the sharing was justified by invoking this ease—this *absence of sacrifice*—which strays from Mauss’s definition of gifts, by which they essentially require sacrifice on the part of the giver. Further, online sharing was also justified by declaring it a central part of the *human right to take part in culture* (Ross, 1998; Shaver & Sganga, 2009).

Neoclassical economic theory tends to draw a fundamental distinction between private goods and public goods. Following Varian (1992), a public good is a commodity with two related characteristics: it is “nonrival” (my consumption or use of it does not diminish it for anyone else) and “nonexcludable” (my possession of it does not exclude others from benefiting from it; Elkin-Koren & Salzberger, 2000; Kelty, 2006). What makes software unique, some argue (Kelty, 2006; Weber, 2004), is that it carries these characteristics and thus is not prone to exhaustion. Much has been written on free and open-source software as a complex public good (Bessen, 2006) because it thrives on voluntary production and free distribution of economically valuable goods, a situation most economists consider an anomaly (Dalle, David, Ghosh, & Steinmueller, 2005; Weber, 2004). However, as Barbrook (1998) made clear in his early discourse on the Internet economy, money-commodity and gift relations are not necessarily conflicting; they can also coexist in symbiosis. The duplicability of digital data lends these gift economies overwhelmingly positive externalities, evoking the term “cornucopia of the commons” (Bollier, 2001), where every user is thought to gain more than will be contributed in return.

A field of interpersonal communication with low barriers to entry and ease of exchange acts like a commons—although in strict legal terms, much of the content being traded (as part of this communicative exchange) might be private. Kelty (2006, p. 30) notes that commons can be defined as *privately ordered legal regimes*: “they are governed not by state and federal laws and regulations, but by systems of more and less explicit norms developed by the practitioners themselves.” Historically such commons have been small-scale, but online they become translocal, potentially global in reach and scale. Still, these realms are embedded within the economy at large—as are the copyright industries (Boyle, 2003). While online sharing thrives on a glut of titles coded into digital form (copyrighted works that are ripped, encoded, and uploaded), these privately controlled titles themselves depend on the existence of a public domain to build on, in the development of intellectual property. Many file-sharers seem to reflect along these lines when defending their actions. The free, non-market-based circulation of resources that continues to underpin myriad aspects of social and economic life is most often enmeshed in webs of enduring moral commitments and obligations, as in Mauss’ own examples (cf. Currah, 2007, p. 473). De Certeau (1984) maintains that this economic logic of nonconformist sharing in fact precedes capitalist accumulation—and, in his view, is incompatible with it, since the imposition of subjects into alienating modes of mass production and wage labor distorts this intimate role of cultural products.

As shown by Slater (2002), online behavior is guided by imposition of degrees of formal order and introduction of different forms of valorization, so as to sustain some kind of normative framework. Scarcity is somehow invented to maintain a moral order, and in the file-sharing world it is accordingly invoked by normative terms like "leeching" (putting the individual acquisition of files before the benefit of the overall collective). Despite the imposition of market-like terms such as "exchange ratios" and leeching, it is important to see how traditional market logics are hard to apply to "fictitious commodities" (Polanyi, 2001). In modern capitalism, Polanyi argues, the monetary economic system is presupposed as the norm. Entities that are not merely commodities (land, labor, money) cannot fit into this presupposition, unless people collectively adhere to a fictitious belief that they are commodities. Prior to the 19th century, the economic order was merely a function of the social order, Polanyi argues; the monetary economy had to be fitted into preexisting social relations that were not premised on market logic alone (Polanyi, 2001, p. 74-76; Postone, 1993, p. 149). Online, a similar paradox can be observed: If digital content is seen as belonging to a proprietary regime, file-sharing "breaks the spell" when it becomes shared as if it were a public good. But if copyright has never been a natural property right in the first place (Patry, 2009), this "breaking of the spell" becomes a long-overdue return to a less commodified management of content. At the same time, several factors—the vastness of the networked stranger-to-stranger exchange; its quantitative, data-based premise and reliance on detached, "weak" social ties; and its cumulative character as a "pool" or "commons" of content—indicate that norms of reciprocity, rituals, and symbolisms should in fact *not* be expected to apply here in the traditional, anthropological, dyadic sense (Giesler, 2006; Leyshon, 2003; Zerva, 2008).

When seen as nonperishable, superabundant public goods, the circulated files become akin to common knowledge, which citizens can "tap into" and form clusters of collective affiliations around. This mode of communication resembles Carey's (1989) view of communication as *ritualistic and shared*, as opposed to a view of communication as *pure transmission of discrete units* (Giese, 2004; Hillis, 2009). In this view, information is a resource that "can be used but not used up" (Mosco, 1989). Thus, if it is to retain its economic value, it must be bounded or claimed—kept proprietary—by arbitrary regulatory impositions, copyrights, and patents as delineators of artificial scarcity and proprietary control (Giese, 2004). Such corporate impositions generate control and artificial scarcity by invoking ontological definitions of what digital information is and how it is to be regulated (e.g., by emphasizing the broadcast model of synchronous, centralized communication over the TCP/IP model of asynchronous, distributed communication). Meanwhile, "piracy" and the peculiar gift economies of the Internet also generate autonomous, productive entities by employing ontological definitions, albeit of a different kind.

As the case of blood donation demonstrates (Titmuss, 1971), traditional monetary reimbursement can act to the detriment of a distribution system's efficacy. In Titmuss' study, the blood donors who received money for blood were generally poorer and tended to donate out of economic desperation, and thus had greater incentive to lie about the quality of their blood.³ Conversely, "unpaid

³ Mellström and Johannesson (2008) tested Titmuss' argument that monetary rewards can curtail the supply of blood donors. They found that women were less likely to contribute blood when money was

voluntary action [coupled with para-state institutions] was more conducive to trust than self-interest was" (Steiner, 2003, p. 149). Titmuss shows that *economic logics are determined by the ontological status of the product that is disseminated*. As with the fallacy of "externalities" in neoclassical economics, the perceived nature of a disseminated product is not only a matter of disagreement among the agents involved. In fact, the settlements around what the product is and how it is therefore thought to be managed actually *determine how it is managed* (Callon, 1998).

File-sharing—in the mode described in my introduction—is similar to blood donation in that it is a decidedly stranger-to-stranger form of exchange that can only be realized by a complex of institutional actors who come to act as anonymizing proxies (in the case of file-sharing, hardware-software assemblages; in the case of blood donation, mutually cooperating medical clinics). In many of its older instantiations, especially IRC (Cooper & Harrison, 2001), the exchange tended to rely less on such proxies and still bore features of the ancient gift exchange Mauss and de Certeau describe—not least because the infrastructural setup of many of these older P2P networks involved direct personal gains from sharing volumes of material, as individual peers could potentially be judged by the collections they presented to the wider network. My fieldwork partially confirmed this in the case of protocols like Direct Connect, but the relative anonymity of BT prompted a different scenario. One way to approach this anonymity is to note the personal accountability, or "faciality" (Thacker & Galloway, 2007), that can be attributed to the sharer, which leaves a physical trace (Latour, 2007): The sharing of a *link* on Facebook, Twitter, or IRC is attributable to the individual posting it, whereas the 1CH site or BT swarm that hosts the *linked-to data* is a stealthier actor in this respect.

Moreover, P2P networks can be leached—tapped for content—much as blood banks can. Compared to blood, however, tapping of cultural products would in most cases rely less on (physical) need than on (psychological) desire. A revealing aspect, when conceptualizing file-sharing thus, is that the conventional broadcast model in fact presupposes a similar arrangement, where the audience perceives a glut of public goods (nonrival, nonexcludable) as being available "on tap," even though it is not of course actually that simple. Seeing entertainment this way, as a nonperishable superabundance, disobeys or wholly ignores the commonly established economic logic that each individual use comes at a price (via subscription, ad-financed model, or subsidization by other sources of revenue; Anderson, 2009; Shapiro & Varian, 1999). I would argue that this understanding of entertainment is commonplace among consumers, largely because of increased familiarization with ostensibly "free" models for broadcast content, a view that some of my respondents also echoed (e.g., LB's argument below). Here, use is synonymous with *reception* and file-sharing radicalizes this argument into a mode of use that thrives on a positive, rather than negative, notion of individual liberty (Berlin, 2002; von Hayek, 2006). Users are emancipated to act, rather than merely enjoying freedom from restraint or coercion; they *take* the liberty to be recipients in the fuller sense of the word, rather than settling for partial access. Despite the hopes expressed by Strangelove (2005) and others, few users provide genuinely alternative, or radical content (cf. Andersson, 2012)—but still, most users are active re-producers or media activists in the sense that they want the actual exchange (and hence, access) to be sustained. Most of the sharing is thus tacitly satisfied with the

offered; however, the respondents were aware that their attitudes to blood donation were being tested, which might have affected their answers.

existing output of the cultural industries, since most of the data circulated is cultural industries-generated rather than "user-generated."

Thus, regarding the organizational distinction between those facilitating the sharing and those performing it, contemporary file-sharing is highly complex and dependent on the particular protocol or network in question, for even as the act of accessing a file from a torrent swarm is akin to "tapping into" a glut, according to my model above, the BT protocol also makes each user a co-uploader while downloading. Hence, a leecher is a temporary "seeder" as well, no matter how soon he or she quits the exchange once the file has been downloaded in its entirety. File-sharing protocols like BT thrive on simultaneity, another aspect that is similar to blood donation, where the content has to be actively held in circulation, kept fresh. In order to meet demand, such simultaneity would, in turn, require increased material resources (bandwidth, storage space); cf. Steiner (2003, p. 148).

Further, the same user contributes to the collective weight of the phenomenon by adding yet another statistical entry to the data accumulation. Posting the link on Twitter will add an element of community-oriented, friend-to-friend gift exchange into the mix—and moreover, if the posting or comment is public, this can be seen as a form of discursive activism. Note, however, how in this schema the role of activist tends to be expressed only in particular instantiations, decreasing the likelihood that this role would determine a user's *entire* identity and, in turn, making it questionable to label individuals as "pirates." It would be more plausible to argue that "piracy" tends to be expressed in isolated moments of "occasional activism" that are always interspersed with acts performed in a range of other roles as well.

The labeling of such instances as "criminal" or "malicious" is not objective but viewpoint-dependent: If a citizen downloads a film by making use of an illicit service, but then begins praising the film and even buys several copies of it, the characterization of this citizen as a "pirate" and a "criminal" clashes with his or her characterization as a "good consumer" and a "marketing vector" for the same film. Consequently, one could ask whether the original act remains "malicious" if it leads to remuneration for its authors anyway. Extending this argument, one could ask whether unauthorized file-sharing is bad by definition if it leads to overall higher consumption across sectors—as in, for instance, the familiar claim that file-sharing increases consumer spending on concerts and live events. (The strong prevalence of network effects in the digital economy makes such hypotheses hard to measure, however.)

Trust in the Non-overseeable Superabundance of Data

"Traditional parties and centralized organizations have spokespeople who represent them and conduct their battles, but no one speaks for a network. How do you argue with a network?" (Bauwens, 2002, quoting Hardt, 2002). Hardt argues that a network contains movements that are too disparate, seemingly too contradictory, to form a unified opposition in the traditional sense. He implies that the force of networks is instead exerted as a form of undertow. It seems, though, that this undertow takes on material form when it is manifested in the infrastructures and discourses embedded in user forums, FAQs, and "how to" documents, which despite being moderated by elite groupings often allow for an open discourse more representative of the file-sharing body at large.

De Certeau characterizes consumption as a form of production that is clandestine, poaching, fragmented, unrecognized—ultimately “quasi-invisible” (1984, p. 31). P2P introduces a complicating factor in that this quasi-invisibility is compromised by the distributive agency of the peers, which, having been reinforced in the physical exchanges, thus reinforces the material networks—although in an amorphous, ever-changing manner. At the macro level, P2P remains a mass phenomenon (Cooper, 2001); it is fleeting, *never fully overseeable*—like the IRC exchange described by Slater (2002). Yet at the micro level (either chronologically or spatially), actual traces are left, such as IP addresses and observable content archives among the peers. Authorities use these traces in their efforts to police certain networks. In Sweden, the legal strategy has been less draconian than in Germany, Britain, or France: Relatively few crackdowns have extended to end users. Indeed, until very recently, only a handful of network facilitators had been prosecuted (Ungpirat.se, 2011).

Cooper (2001, p. 17) draws on Simmel (1971) in acknowledging that *mass*—as an aggregate of either human agents or cultural objects—usually appears to be quite transient. The aggregates I refer to here have this amorphous, never fully overseeable character as a circulation that people freely enter and exit. The network becomes a given entity that, while blurry and never entirely delimited, is yet something to which people can compare their individual actions and behavior. In terms of relating to such vast, electronically connected masses, Cooper (2001, p. 34) argues that the individual is forced to resort to *probabilities* rather than certainties. Consumers searching for particular content on a file-sharing network have to rely on the probability of finding it, police searching for signs of delinquent behavior have to make estimates and “shots in the dark,” and heavy users must similarly assess the risk of getting caught. The technical configurations of contemporary P2P networks like BT never *guarantee* sustained availability of the circulated products. Likewise, because users tap in and out of networks very rapidly, user presence is highly transitory.

The “copyright” debate ultimately resorts to these probabilities time and again. The entertainment industry argues that file-sharing hurts sales, but full causation can never be positively proven because this argument relies on a probability calculation.⁴ The debates on possible legalization of or crackdowns on file-sharing rely on similar estimates. The legal status of file-sharing is continually contested in both on- and offline forums, and far from everyone accepts that file-sharing is illegal—but in order to justify such arguments, they need to be enumerated, as few commentators would advocate a free-for-all. Both Boyle (2003) and Shaver and Sganga (2009) argue that there have always been fair or noncommercial use provisions/privileges, while Lessig (2004), for example, has a more moderate view embodied in the Creative Commons license.

The file-sharers I interviewed also made similar approximations, estimating the possible risks, damages, or benefits affected by file-sharing. The risks are minimal, VS maintained, stressing personal knowledge and skill as factors that reduce the likelihood of getting caught. Many respondents emphasized privacy as each user’s individual responsibility, framing the problem as one of individual users making the decision to use or abuse the system, where it was “up to oneself” to decide whether to “keep up” with

⁴ Cf. Pollock (2006), Grassmuck (2010), Tschmuck (2010) for overviews.

these new technologies or remain "left behind." This predilection is in line with what is often called the "Californian ideology" (Barbrook & Cameron, 1995), related to the "hacker ethic" (Himanen, 2001; Levy, 2001) and a partiality to the (male) expert use and tinkering that often appears to underpin present online cultures.

However, as the interviews unfolded, the argumentation became more nuanced. Some of the more thoughtful accounts also applied the "sharing is caring" ethic (championed by Piratbyrå at the time), which in practice translates into a more utilitarian approach: What is good for overall network efficacy and accessibility is ultimately good for each node involved. Hence, some of the respondents valued "uploading" more than "downloading," as contribution to the common pool is the very activity that makes this pool at all possible. However, contemporary file-sharing (BT and 1CH sites) does not clarify this as explicitly as do older file-sharing protocols (Direct Connect, Gnutella, Fasttrack).

While this utilitarian notion of collectivity tends to be frequently invoked in file-sharer discourse, only occasionally did my study uncover the notion of a *collectively based normativity*—that is, the idea that institutions and technical assemblages come to exert "prescriptive" agencies of their own. This was surprising, given that unauthorized file-sharing can be seen as rather technocratic, dependent on certain protocols and expected behaviors among end-users. The fact that the respondents did not explicitly elaborate on this might indicate the extent to which P2P-based file-sharing has become a widely embraced technology in Sweden, ubiquitous to the point of being normative and thus made partly invisible.⁵ They did, however, note a form of normativity that they mainly associated with human collectives (the "communities" that establish the rules, etc.). While it was important for me to see such normativity as simultaneously embedded in the infrastructure, this seemed less obvious to the respondents. Blood donation similarly configures morality via its institutional setup, most notably in the British system, where monetary reimbursement is deliberately deemphasized to constitute only a minor motivation for the donors (Titmuss, 1971).

The term "prescription" comes from science and technology studies (more specifically, actor-network theory). It refers to the process by which technologies prescribe certain behaviors back to humans.⁶ Slack and Wise (2002) note that technology usually prescribes behaviors back to *all* who encounter them, not just those who initially delegate the task. "In this way," Slack and Wise maintain, "technologies are moral. They impose 'correct' behavior and foster 'good' habits. . . . In addition, the technology may be discriminatory" (p. 494). The file-sharing network becomes a preexisting collective, an institutionalized mass entity that users are destined to always relate to, either by hacking it (opening the "black box"; Winner, 1977) or by accepting its designated standards and procedures. Lanier (2006, 2010) has argued that in some aspects, digital networks are in fact the opposite of malleable. Despite their genealogy within countercultural and activist circles, P2P networks (in their ossified form) exert a

⁵ Methodological reasons may also explain respondents' reluctance to describe the phenomenon as normative. More complex or controversial modes of reasoning tend to appear only after an escalation of the interview process. In a self-reflexive elaboration of desires, motivations, and actions, many of them might remain unconscious, unintentional or simply not visible to the individual.

⁶ In contrast, "delegation" is the term for humans assigning tasks to nonhuman objects.

technocratic influence of their own, though not necessarily malevolently. The tacit knowledge that millions of other individuals are using the networks (constituting, as some respondents said, a veritable “people’s movement”) adds further weight to this implicit normativity of sharing. This was one of the arguments of the Swedish Pirate Party at the time, file-sharing being seen as a commonplace like broadband.

Some of my respondents were loosely affiliated with Piratbyrån, which partially explains their view of file-sharing as linked to political agency. Still, a society that already harnesses and accumulates individual opportunism to collective benefit is all the more likely to sympathize with systems that thrive on opportunism while generating collective benefits, just as a society of depersonalized mass media is strongly inclined to embrace a means to gratification that is both easily attainable and depersonalized (as users are virtually anonymous in the crowd). Unrestricted file-sharing thus need not be anomalous to capitalism at large; as noted before, it is embedded within it. LS maintained that for her, the concept of sharing was indeed “rather secondary”:

I would call it a [collective] mutual exploitation. . . . It might be that “taking” is active, whereas “giving” [sharing] is a passive act. . . . The giving [sharing] is for me a necessary evil in order to get something out of it, egoistically, basically. . . . It would have been more controversial if it was a social revolt against the market and the powers that be, but I think that it the reason it appears as such a revolt is an unconscious effect of it being so easily accessible. To challenge the market in order to lower prices might have been an initial idea, but not a deliberate act for many users.

Here the act of sharing (or “mutually exploiting”) appears to be externalized as part of the rules of participation, embodied in the material infrastructure and coupled with social “netiquette,” that is, the common courtesy of the network. The respondents’ discourse tended to locate responsibility primarily in the collective rather than the individual—that is, in the network architecture or infrastructural institutions that this collective helps constituting and is itself constituted by. This was especially so for those forms of responsibility pertaining to file-sharing’s potential *negative* side effects (or externalities). The individual choices were not seen as unwitting or innocent—indeed, individual, self-determined, and highly pragmatic *choice* was seen to be equally paramount—but the moral justification for these choices was shifted from the individual to the collective. The respondents seemed to struggle to see *de facto* negative effects of file-sharing,⁷ and when the prospect of these was raised, it was never entirely the individual’s fault but rather the aggregated, hazy collective’s. As the diffusion of networked individualism grants file-sharers a widened scope of action (Castells, 2001, pp. 130–131), both agency and justification become distributed, because when this diffusion is embodied in a collective, it takes on the role of a moral agent, in aggregated form.

In the Swedish context, this dynamic between the individual and the collective makes good sense, as the archetypal Swedish social contract values (apparent) operational neutrality for all peers (every peer systemically equal within the network), efficacy, and infrastructure (Berggren & Trägårdh, 2006). The P2P

⁷ This would require focusing on a partial phenomenon, such as that of CD sales, where the occurrence of clear negative effects is disputed anyway; see note 4.

network here becomes a metaphor for a *structural totality allowing each individual to maximize utility*. In addition, the long history of organizational life and social-democratic “people’s movements” in Sweden makes institutional efforts like the Pirate Party, Piratbyrå, and TPB appear logical, if not even expected (Andersson, 2011). When asked whether file-sharing in Sweden could be said to constitute a “people’s movement” on a national scale, some respondents initially found this a rather alien label. However, VS referred to file-sharing as a “national sport”—at least in sheer numerical terms: “There is no [other] activity that has more users.” PS agreed on the label, since “everybody file-shares,” while VA noted that “‘everyone’ likes film, music and computer games.” Meanwhile, LB thought the label applicable not only to the sheer demographic numbers but primarily to the increasingly visible groups of “conscious file-sharers—who are finding ideologies around the phenomenon,” maintaining that file-sharing would never have been intended as a “national people’s movement” but has come to appear so, owing chiefly to its massive popularity.

AG disagreed, contending that the phenomenon is not homogeneous enough to warrant such a label as its participants do not express a coherent, unified opinion. “It would be like saying that buying goods, reading books, or watching musicals would constitute people’s movements.” He noted that “people’s movement” is a positively charged expression and therefore might be strategically employed by pro-file-sharing interests: “The Pirate Party wants to call it a ‘national people’s movement,’ but that’s only because they want to gain from this rhetoric.” VA refuted this; he saw file-sharing as more than mere consumption because of its highly organized character: “File-sharing is, however loosely, organized! To shop for goods, read books and watch musicals is pure consumption. File-sharing is much more than that!” He also emphasized the highly active nature of the phenomenon and the crumbling distinctions between consumers and producers that follow from it. This concurs with Lindgren’s notion of Swedish file-sharing as akin to a social movement (Lindgren, 2009; Lindgren & Linde, 2007).

Although several respondents were contributors to file-sharing communities like Piratbyrå, few of them professed any explicit political inclination. Virtually all respondents took a wary, if not distanced, stance toward established media corporations. The general consensus was that the entertainment industry makes too much profit and prices of CDs and DVDs are too high. In some cases respondents coupled this critique with the particular argument that Sweden is generally overpriced, and that it is often cheaper to import goods from foreign-based online retailers.

AA stressed users’ economic status as a main determining factor, arguing that it may primarily be those who prefer to download legally who valorize the moral dimension, as a way to justify their own monetary sacrifice. SZ held that “personally, I don’t think that many people download as a means for a political struggle.” He thought that people should not have to pay for culture (a position he shared with most respondents) and did not see this as explicitly political, though he was apparently adhering to a left-wing stance in which “file-sharing really is a utopia which has become real when it comes to culture. Anyone can have anything, without anyone losing anything.” Like several other respondents, he invoked a rather idealistic view of culture, understanding it as essentially “free” and hobby-based. Several respondents shared this utopian wish: “Culture is a human right, not an economic right” (SZ). This echoes Shaver & Sganga (2009) yet also reveals what I have mentioned above: a delineated, partial view that tends to ignore the possibility that new regimes of sharing *can* contain elements inhibiting the progress of

science and useful arts. It is possible, after all, that laissez-faire file-sharing as a new cultural norm will not prove a panacea to culture. Recalling Titmuss, this argument conflates culture with blood, in that it argues for free access to cultural works as if this was a *need* rather than a desire. As with blood, the quality is everything: Different degrees of access are required for different ends. Following Katz (2010), if progress in science and useful arts is a goal, then arguably there is a qualitative difference between, e.g., access to scientific journals (needed) and access to entertainment (desired). Taking the blood quality analogy further, and filtering it through Keen (2007), opening access entirely might have the peculiar side effect of diluting the substance itself, as incentives greater than those attainable in an amateur mode of production come to be deemed unnecessary by both audience and producer.

Yar (2008) and Patry (2009) note how both sides in the “copyright” tend to frame it in terms of alleged “rights.” This may unnecessarily polarize the debate, as any argument involving “rights” risks appealing to fundamentalism. “There should be no guaranteed right to live on one’s hobby (culture),” SZ maintained—a clear example of opposition to both the Lockean *myth of property as a natural right* and the romantic *myth of an individual, sole author* (Yar, 2008). This very particular framing of the conflict might be typical of Sweden, perhaps stemming from an underlying civic disappointment with an extensive public sector that is seen to benefit large numbers of unemployed people as well as (smaller numbers of) state-subsidized artists, actors, and musicians and has been criticized for systematic favoritism in selection of recipients of arts funding. Nevertheless, some respondents made subtler amendments to this “rights” argument. LB pointed to how moral concerns sometimes arise in the online file-sharing communities:

If you hang out in a file-sharing community, pretty often the discussion “Should this be downloaded or not?” occurs. It can be due to slightly different reasons—f.ex. If it’s a charity CD with famous artists. . . . A different reason can be if you think that a film, song or whatever is of Good Quality [sic], and therefore should be invested in.

Different affinities and valuations (the ability to “preview” material plays a role here) thus play a part in constituting this sense of rightness and morality. PS noted the problematic nature of the civic “right to take part in culture” argument, asserting that culture has never been totally “free” and that many musicians in fact rely on reimbursement. VA noted the corporate, constructed nature of these perceived “rights”: “The music-, computer-, film- and entertainment industries create needs which capital can’t satisfy!” LB noted that this perception of consumer “rights” partially results from a strong discourse of creativity and opportunism that I associate with post-Fordist capitalism:

The same creativity that production companies have been able to thrive on, that has been sold with massive PR campaigns, and reached a position in our lives as something we *must* have, but have been driven to pay dearly for. Paradoxically, we now see ourselves as having a god-given right to film, music etc. Very much so—I think—because it’s exactly that attitude that the big companies have sold to us throughout the years. Does that mean you *have* to get it for free? No. But do you get to have the right to become filthy rich from your song because of that? I don’t think so.

Now that music and film are appreciated as natural elements of everyday culture, a habit of expecting to be able to access these staples for free appears to have taken hold: an expectation, among file-sharers, of a constant *flow* of new cultural material, fresh blood for the leeches. Yet there is no

guarantee that the file-sharers would make amends to practice new ways of reimbursing artists and creators, as the creation of new films and new music is, after all, not as *vital* to the sustenance of society as is the production of food and shelter, or labor markets. I did not perceive any real sense of urgency in these everyday file-sharers' views on the music, gaming, and movie industries. This was further complicated by their rhetorical tendency to equate the nonpaid acquisition of cultural products with "taking part in cultural life" for free. This "free" acquisition appears to be ethically and cognitively defended by invoking the argument that the files, as cultural products, are *not really of the same value and status* as concrete, physical artifacts and therefore would not interfere with actual sales, files being more akin to said "flow" than discrete artifacts are. The respondents did not see the files as equivalent to purchased products—although in fact many downloaded files replace artifacts that would otherwise be purchased or rented.⁸

Thus Carey's ritualistic view of communication is taken to its extreme in the file-sharer argumentation: Files are discrete units that can be hoarded and collected, but they are not on par with the original physical artifacts; they are more akin to ether or "flow." This is to stress how communication is intrinsically bound up with the *communal*, and also with *communion* (cf. Attali, 1977); it has functions extraneous to the mere transmission of content. Digital sharing is seen as promiscuous, circulatory, flowing, yet involving a degree of *trust* in that the increased abundance of content passing by also means that at least something tends to "stick." Someone who, in the past, saw 20 films and bought four of them, today might download 100 films yet buy eight of them, this reasoning seems to imply. The file-sharer discourse thus has its utilitarian and functionalist dimensions as well, in the tendency to equate consumption with data management. However, my respondents' arguments seem to distance them from this "data hoarder" mentality. For BT, communal sharing appears to be only a side effect serving the main objective: to personally acquire content. On occasions when the individual desire to contribute outweighs this wish for self-gratification, the action falls under the category of activism, which I see as more closely related to "piracy" than the mere acquisition of content is.⁹

There was strong awareness of this individual gratification, and many everyday file-sharers reveal typical traits of leeching. This is also mirrored in the slogan "sharing is caring," which is read as a normative statement urging online participants to share their newly acquired content and not merely leech. The slogan's popularity indicates a need for such a plea: The P2P infrastructure lends itself to distribution patterns that become (seemingly) altruistic, even though the motivation of the individual peers might not always be—hence the reminder that making the downloaded file available for a while longer is to care for the community. This is akin to reminding blood donors that what they do is morally commendable.

For a researcher, it is vital to see that the *expedient character of P2P infrastructure* potentially lends itself to meaningful outcomes (truly open, accessible, decentralized, user-generated archives as a reachable utopia) as well as obvious abuses—such as the prevalence of deliberately corrupt and morally

⁸ See note 4.

⁹ Johns (2009, pp. 220–234) notes a historical precursor: fervent archivists like S.E. Brydges, whose mission was to 'seed' as much as to 'leech,' and therefore establishing illegitimate printing presses.

questionable files, of "pirate copying" for monetary gain, and of purposely abusive leeching practices. To be sure, not all such outcomes would be deliberate, or even the result of one human actor alone. Many of these systematic problems arise out of complex aggregates (cf. Latour, 2005)—emergent phenomena beyond one person's intent. The infrastructure addresses such problems through adjustments to the *protocols* that facilitate the exchange (Galloway, 2004). Ratio systems (e.g., allowing one gigabyte of download for every three uploaded) and imperatives such as "sharing is caring" (like the imperative that the blood donor be honest about one's blood quality) are communication protocols applied to the human user.

Conclusion

The infrastructural setup of BT makes piracy, in a sense, mundane. With the uploading function integrated into the act of downloading, an act that would otherwise be associated with activism—seeding—is hidden, almost as an afterthought. It is nevertheless a very important afterthought, as the superabundance of content circulating would arguably be reduced, were it not for this function. In extensively Internet-connected parts of the world such as Sweden, this superabundance has become a routine backdrop to everyday life, and in this the infrastructural setup also plays a notable part: The actual hive of exchange is never visualized; there is no "macro view" of the phenomenon. The ongoing file-sharing is only apprehended by means of a rather myopic, close-up view (cf. Latour, 2005, p. 181) that assesses the macro only by way of inference, or reflexive guesswork—hence the endless recursion to *probabilities* on both sides of the "copyfight" quarrel.

File-sharers mainly assess the situation as citizens and cultural consumers. From this point of view, the individual is always relative to totalities bigger than the self. But from a policy viewpoint it is senseless to talk about totalities, as such argumentation will only digress into ever wider circles. The justification for different social phenomena has to be specified through particular registers, concerns, or ideologies (Boltanski & Thévenot, 2006). In the case of blood donation, certain registers of public benefit have to be considered alongside others. Titmuss noted in his famous study that the overall quality of blood was of prime concern. To take this as the most important goal was to trump other concerns, such as the creation of yet another market, as in his view, blood donation gained from being arranged through nonmonetary incentives for participation.

Similarly, whether or not P2P-based file-sharing should be freely allowed depends on which mode of justification one chooses for it. In my study—which focused on how file-sharing relates to norms and mentality, given its strong dependence on infrastructural conditions—one of the file-sharers' own central considerations was the allegedly "unstoppable" nature of the file-sharing, at least on a global level. Neither its immense molecular freedom and heterogeneity nor its low universal oversight can be suppressed without a simultaneous severe curtailment of civil liberties (such as the right to privacy). When noting the need for such totalitarian measures to effectively stop the phenomenon, it was as if my respondents glanced into the distance, envisaging this never fully overseeable entity and the problem of globally restraining it.

My respondents also invoked another totality: the alleged "right" to take part in culture. This was more problematic, as this claim speaks for only a certain section of the human experience, that of being a cultural consumer. However, as cultural consumption is the foundation of both cultural production and citizenship, the argument merits consideration. Relating it to the blood donation analogy, it is important to note the difference between needs and wants (without, however, dismissing the need for leisure and entertainment in sustaining things like cultural identity). Given the project of liberal governance—balancing claimed "rights" against other, equally valid "rights"—these needs and wants require further assessment with an eye to safeguarding progressive science and useful arts. In this argument, culture is invoked as an inexhaustible, nonperishable commons that is suitable for detachment, storage, or mobilization (Polanyi, 2001, p. 75) into the market mechanism—data are, after all, extremely well-disposed to tracing and quantification. But what the respondents appeared to be saying was that file sharing reveals "the extreme artificiality of market economy" (ibid., p. 77), laying bare the arbitrary nature of copyright as well as the arbitrary nature of the privately ordered online regimes—i.e., the norm systems developed by the practitioners themselves (Kelty, 2006, p. 30).

The file sharers demonstrate that people can summon trust in the cacophony, relating to it as an ever-present heterogeneous, superabundant exchange, and that cultural policy in the twenty-first century might prioritize the efficient and equitable tapping of this superabundance, rather than wishing vainly to quench it.

References

- Anderson, C. (2009). *Free: The future of a radical price*. New York, NY: Hyperion.
- Andersson, J. (2009). For the good of the net: The Pirate Bay as strategic sovereign. *Culture Machine*, 10, Pirate Philosophy issue, 64–108.
- Andersson, J. (2011). The origins and impacts of the Swedish file-sharing movement: A case study. *Critical Studies in Peer Production*, 1(1), 1–18.
- Andersson, J. (2012, in review). Not necessarily an intervention: The Pirate Bay and the case of file-sharing. In K. Howley (Ed.), *Media Interventions*. New York, NY: Peter Lang.
- Attali, J. (1977). *Noise: The political economy of music*. Manchester, UK: Manchester University Press.
- Barbrook, R. (1998). The hi-tech gift economy. *First Monday*, 3(12), 7 December 1998.
- Barbrook, R., & Cameron, A. (1995). The Californian ideology. *Hypermedia Research Centre*, August 1995. London, UK: University of Westminster.
- Bauwens, M. (2002). Peer to peer: From technology to politics to a new civilisation? Retrieved from <http://www.itu.int/osg/spu/wsis-themes/contributions/others/pEERNewP2P.doc>
- Bauwens, M. (2012). Gift economy. *P2Pfoundation wiki*. Retrieved from http://p2pfoundation.net/Gift_Economy
- Berggren, H., & Trägårdh, L. (2006). *Är svensken människa? Gemenskap och oberoende i det moderna Sverige*. Stockholm, Sweden: Norstedts.
- Berlin, I. (2002). Two concepts of liberty. In I. Berlin & H. Hardy (Ed.) *Liberty* (pp. 166–217). Oxford, UK: Oxford University Press. (Originally published in 1958.)
- Bessen, J. (2006). Open source software: Free provision of complex public goods. In J. Bitzer & P. J. H. Schröder (Eds.), *The economics of open source software development* (pp. 57–81). Amsterdam, the Netherlands: Elsevier B. V.
- Bollier, D. (2001). The cornucopia of the commons. *Yes! Magazine*, summer 2001. Retrieved from <http://www.yesmagazine.org/issues/reclaiming-the-commons/the-cornucopia-of-the-commons>
- Boltanski, L., & Thévenot, L. (2006). *On justification: Economies of worth* (C. Porter, trans.). Princeton, NJ, & Oxford, UK: Princeton University Press.

- Boyle, J. (2003). The second enclosure movement and the construction of the public domain. *Duke University of Law Journals: Law and contemporary problems*, 66, 33–74.
- Callon, M. (1998). Introduction: The embeddedness of economic markets in economics. In M. Callon (Ed.), *The laws of the markets* (pp. 1–57). Oxford, UK & Malden, MA: Blackwell.
- Carey, J. (1989). *Communication as culture: Essays on media and society*. London, UK, & Boston, MA: Unwin Hyman.
- Castells, M. (2001). *The Internet Galaxy*. Oxford, UK: Oxford University Press.
- Cooper, J., & Harrison, D. M. (2001). The social organization of audio piracy on the Internet. *Media, Culture & Society*, 23(1), 71–89.
- Cooper, R. (2001). Interpreting mass: Collection/dispersion. In N. Lee & R. Munro (Eds.), *The Consumption of mass: A Sociological Review monograph* (pp. 16–43). Oxford, UK, & Malden, MA: Blackwell.
- Currah, A. (2007). Managing creativity: The tensions between commodities and gifts in a digital networked environment. *Economy and Society*, 36(3), 467–494.
- Dalle, J. M., David, P. A., Ghosh, R. A., & Steinmueller, W. E. (2005). Advancing economic research on the free and open source software mode of production. In M. Wynants & J. Cornelis (Eds.), *How open is the future? Economic, social and cultural scenarios inspired by free and open source software* (pp. 395–426). Brussels, Belgium: Vrije Universiteit Press.
- de Certeau, M. (1984). *The practice of everyday life* (S. Rendall, trans.). Berkeley, CA, Los Angeles, CA, & London, UK: University of California Press.
- EDRI. (2008). EDRI-gram number 6.3, 13 February 2008. Pirate Bay: Blocked In Denmark. Retrieved from <http://www.edri.org/edriagram/number6.3/piratebay-denmark>
- Elkin-Koren, N., & Salzberger, E. M. (2000). Law and economics in cyberspace. *International Review of Law and Economics*, 19(4), 553–581.
- Galloway, A. (2004). *Protocol: How control exists after decentralization*. London, UK, & Cambridge, MA: MIT Press.
- Giese, M. (2004). Community property: Digital music and the economic modalities of transmission and ritual modes of communication. *Journal of Communication Inquiry*, 28(4), 342–362.
- Giesler, M. (2006). Consumer gift systems. *Journal of Consumer Research*, 33, 283–290.

- Graeber, D. (2001). *Toward an anthropological theory of value*. New York, NY: Palgrave Macmillan.
- Grassmuck, V. (2010). Academic studies on the effect of file-sharing on the recorded music industry: A literature review. *Projeto de Pesquisa de Grupo de Pesquisa em Política Pública para o Acesso à Informação Escola de Artes, Ciências e Humanidades*. May 14, 2010. São Paulo: Universidade de São Paulo.
- Hardt, M. (2002). Porto Alegre: Today's Bandung? *New Left Review*, 14, 112–118.
- Hayek, F. A. von. (2006). *The constitution of liberty*. London, UK: Routledge. (Originally published in 1960.)
- Hillis, K. (2009). *Online a lot of the time: Ritual, fetish, sign*. Durham, NC: Duke University Press.
- Himanen, P. (2001). *The Hacker ethic and the spirit of the information age*. London, UK: Vintage.
- Johns, A. (2009). *Piracy: The intellectual property wars from Gutenberg to Gates*. Chicago, IL: University of Chicago Press.
- Katz, A. (2010). Moral panics and the copyright wars. *International Free and Open Source Software Law Review*, 2(1), 69–76.
- Keen, A. (2007). *The cult of the amateur: How today's Internet is killing our culture*. New York, NY: Doubleday.
- Kelty, C. (2006). The scale of norms: Free software and the theories of gift exchange. Unpublished manuscript. Retrieved from <http://kelty.org/or/papers/unpublishable/Kelty-Gifts-Dec-2006-Revised.pdf>
- Lanier, J. (2006, January 9). The gory antigora: Illusions of capitalism and computers. *Cato Unbound*, Washington, DC: Cato Institute.
- Lanier, J. (2010). *You are not a gadget: A manifesto*. London, UK: Allen Lane.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford, UK: Clarendon.
- Latour, B. (2007, April 6). Beware, your imagination leaves digital traces. *Times Higher Literary Supplement*.
- Lee, T. B. (2011). Swiss government: File-sharing no big deal, some downloading still OK. *Ars Technica*, December. Retrieved from <http://arst.ch/rrv>

- Lessig, L. (2004). *Free culture: The nature and future of creativity*. London, UK: Penguin.
- Levy, S. (2001). *Hackers: Heroes of the computer revolution*. London, UK: Penguin. (Originally published in 1984.)
- Leyshon, A. (2003). Scary monsters? Software formats, peer-to-peer networks, and the spectre of the gift. *Environment and Planning D: Society and Space*, 21, 533–558.
- Linde, J., & Lindgren, S. (2007). Sharing is caring: Fildelningskultur, subpolitik och nya sociala rörelser [Sharing is caring: File-sharing culture, subpolitics and new social movements]. In S. Lindgren & T. Sandgren (Eds.), *Unga och nätverkskulturer: Mellan moralpanik och teknikromantik* (pp. 115–128). Stockholm, Sweden: Ungdomsstyrelsen/Fritzes.
- Lindgren, S. (2009). Unga fildelningskulturer [Young file-sharing cultures]. In S. Lindgren (Ed.), *Ungdomskulturer* (pp. 118–175). Malmö, Sweden: Gleerups.
- Mauss, M. (2002). *The gift*. London, UK: Routledge. (Originally published in 1923.)
- Mellström, C., & Johannesson, M. (2008). Crowding out in blood donation: Was Titmuss right? *Journal of the European Economic Association, MIT Press*, 6(4), 845–863.
- Mosco, V. (1989). *The pay-per society: Computers and communication in the age of information*. Toronto, Canada: Garamond.
- Patry, W. (2009). *Moral panics and the copyright wars*. Oxford, UK: Oxford University Press.
- Polanyi, K. (2001). *The great transformation: The political and economic origins of our time*. Boston, MA: Beacon Press. (Originally published in 1944.)
- Pollock, R. (2006). P2P, online file-sharing, and the music industry. Updated March 31, 2006. Retrieved from http://www.rufuspollock.org/economics/p2p_summary.html
- Post, D. G. (2009). *In search of Jefferson's moose: Notes on the state of cyberspace*. Oxford, UK: Oxford University Press.
- Postone, M. (1993). *Time, labor, and social domination: A reinterpretation of Marx's critical theory*. Cambridge, UK: Cambridge University Press.
- Ross, A. (1998). *Real love: In pursuit of cultural justice*. London, UK: Routledge.
- Shapiro, C., & Varian, H. R. (1999). *Information rules: A strategic guide to the network economy*. Boston, MA: Harvard Business School Press.

- Shaver, L., & Sganga, C. (2009). The right to take part in cultural life: On copyright and human rights. *Wisconsin International Law Journal*, 27, 637–662.
- Simmel, G. (1971). *On individuality and social forms*. Chicago, IL: University of Chicago Press.
- Skågeby, J. (2010). Gift-giving as a conceptual framework: Framing social behavior in online networks. *Journal of Information Technology*, 25(2), 170–177.
- Slack, J. D., & Wise, J. M. (2002). Cultural studies and technology. In L. Lievrouw & S. Livingstone (Eds.), *The Handbook of New Media* (pp. 485–501). London, UK, Thousand Oaks, CA, & New Delhi, India: SAGE Publications.
- Slater, D. (2002). Making things real: Ethics and order on the Internet. *Theory, Culture & Society*, 19(5/6), 227–245.
- Steiner, P. (2003). Gifts of blood and organs: The market and 'fictitious' commodities. *Revue Française de Sociologie*, 44, Supplement: An Annual English Selection, 147–162.
- Strangelove, M. (2005). *The empire of mind: Digital piracy and the anti-capitalist movement*. Toronto, Canada, Buffalo, NY, & London, UK: University of Toronto Press.
- Tan, L. (2010, November 25). The Pirate Bay: Countervailing power and the problem of state organized crime. *CTheory*, Theory beyond the codes issue. Retrieved from <http://www.ctheory.net/articles.aspx?id=672>
- Thacker, E., & Galloway, A. (2007). *The exploit: A theory of networks*. Minneapolis, MN, & London, UK: University of Minnesota Press.
- Titmuss, R. M. (1971). *The gift relationship: From human blood to social policy*. London, UK: London School of Economics Books.
- Tschmuck, P. (2010). Music business research. Retrieved from <http://musicbusinessresearch.wordpress.com>
- Ungpirat.se. (2011). Fildelningsfall. [Listing of file-sharing litigations in Sweden.] Retrieved from <http://ungpirat.se/om-oss/kampanjer/fildelningsfall>
- Varian, H. R. (1992). *Microeconomic analysis* (3rd ed.). New York, NY, & London, UK: W. W. Norton & Company.
- Weber, S. (2004). *The success of open source*. Cambridge, MA: Harvard University Press.

Williams, M. (2012, January 19). US government hits Megaupload with mega piracy indictment. *The Guardian*.

Winner, L. (1977). *Autonomous technology: Technics-out-of-control as a theme in political thought*. London, UK, & Cambridge, MA: MIT Press.

Yar, M. (2008). The rhetorics and myths of anti-piracy campaigns: Criminalization, moral pedagogy and capitalist property relations in the classroom. *New Media & Society*, 10(4), 605–623.

Zerva, K. (2008). File-sharing versus gift-giving: A theoretical approach. *Proceedings of 3rd International Conference on Internet and Web Applications and Services (ICIW)*, Athens. doi: 10.1109/ICIW.2008.95