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Napster's Mediations

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Napster was a significant artifact in the history of digital culture, though an odd one. It was a software application that emerged at the crest of the dot-com bubble's expectations for the World Wide Web. It was born from the culture of underground hackers and pirates, but it was nevertheless greeted by the business press in a largely celebratory fashion. It had no business model and was characterized as the future of business. Napster's strangeness helps put into relief the imaginaries that various actors placed in the digital: in other words, how people believed computer networks would reshape economics, politics, society, and culture and how those beliefs are rooted in deeper ideological investments. Investigating Napster clarifies that many of these ideologies have been divested from only incompletely a quarter of a century later.

When Napster reached widespread attention, it received a great deal of acclaim from the mainstream press. Critical voices, such as Lars Ulrich of Metallica and head of the MPAA Jack Valenti, were only marginally influential, though backed by the institutional power of the law. The program's founder, Shawn Fanning, graced the cover of Time Magazine on October 2, 2000 (Greenfeld, 2000). The magazine's laudatory profile portrayed him as the quintessential dot-com startup founder: a teen visionary who had dropped out of college in order to devote time to coding his dream project. Other mainstream coverage depicted the conflict between the Recording Industry Association of America (RIAA) and Napster as a generational one: *Fortune Magazine*'s coverage of the case referred to it as "David" against "the Goliaths" of the music industry and contrasted Napster's "20-million-kid user base" to "executives over 40" whose businesses were threatened by the software (Napster's own chief executive, Shawn Fanning's uncle John, was only 36 when he adopted the title) (Tully, 2000). The predominant image of Napster was a youth-driven underdog poised to unleash a revolution.

Indeed, "revolution" was an oft-used word to describe Napster. *Time* and *Fortune* deployed it, as did *Forbes* (2000) and *CNN* (Cohen, 2000). Innumerable subsequent retrospectives on the program would as well (see, for example, Van der Sar 2024), and it was the subtitle of the 2013 Napster documentary *Downloaded*. However, if Napster was a revolution, it was a particularly circumscribed one. Oddly, perhaps, for a service with no business model whose chief appeal was allowing users to freely download what would otherwise have to be paid for – stealing, as rights holders put it – Napster was not treated as a threat to the political system or to the capitalist mode of production.

Wired Magazine has traditionally been the chief mouthpiece of Schumpeterian digital "revolutions," by which new technology changes everything – except an economy based on commodities. Napster was no different. Columnist John Perry Barlow waxed rhapsodic, if somewhat incoherently, that Napster revealed both the influx of "DotCommunism" as well as a "free market of cacophonous expression": "We've won the revolution. It's all over but the litigation. While that drags on, it's time to start building the new economic models that will replace what came before." Wired editor Chris Anderson (2008) attempted to elaborate on the contours of these models in *Free: The Future of a Radical Price*, which rested its observations on the fact of the free digital content: "digital economics has revolutionized Free, turning it from a marketing gimmick into an economic force" (13). Former music journalist Matt Mason's *The Pirate's Dilemma* (a review in Wired rated it 9 out of 10) supplemented the technologically determinist Schumpeterian view of piracy as creative destruction with the subcultural appeal of piracy.

Here, a "DIY philosophy" that united punks, pirates, activists, and entrepreneurs is driving change. "DIY is about becoming more independent. The more independent we become as a society, the more industries become decentralized. Indeed, we may reach a point where there is no 'industry' left at all" (30).

Mason's invocation of "decentralization" connects to another aspect of the supposed Napster revolution. Napster's threat was not simply to intellectual property and its attendant business models but to social structures rooted in hierarchy. This hostility to hierarchies went beyond the methods users undertook to acquire music that disregarded the business models and value chains of large corporations. It was the novel architecture of the software itself that realized the possibility of new social relations: peer-to-peer. When users downloaded MP3 files via Napster, they downloaded from other users on the network rather than a centralized server controlled by Napster itself – Napster merely listed offerings from others. The architecture of peer-to-peer file sharing had, in fact, realized the essence of the internet. As Barlow put it, "But then along came Napster. Alternatively, more to the point, along came the real Internet."

The hierarchy in question-related to a then-popular understanding of the politics of copyright and intellectual property. While copyright nominally exists to reward creators and thus incentivize the production of new works, restricting the copying of information conflicted with a number of social and creative practices emerging in a digital context, such as sampling and remixing. Thus, in the internet era, copyright served to *limit* the production of new works for the benefit of large corporations, who retained monopolistic control over cultural markets and free expression (Vaidhyanathan, 2001). Law professor Lawrence Lessig (2001) was a notable popularizer of this position, emphatically describing cultural commodities as forms of speech that, therefore, should not be regulated – effectively collapsing free speech and free markets.

In this way, Napster pointed towards a future that appealed to both libertarian-inclined members of the technology industry and more critical voices in academic, hacker, and activist circles interested in questions of democracy, free expression, and open collaboration. Through a simple technical structure, peer-to-peer file sharing subverted the "gatekeepers" and "middlemen" of the state and large corporations by providing an alternative structure for distributing cultural works that had been digitized. Peer-to-peer realizes "decentralization," a term often used to describe both the structure and politics of digital networks (Schneider, 2019) and as a (notably imperfect) synonym for "democracy" (Golumbia, 2016).

However, rather than centralization (or lack thereof), I would like to use another term, less popular but also invoked, to reframe the question of Napster and its structure in terms of *mediation*. Napster, as an object, did not simply "decentralize" the music industry. Rather, it reshaped relations between the internet, digital cultural content, the music industry, audience practices, and so on, and in turn, influenced the common understanding of this reshaping. In what follows, I do not offer a comprehensive account of this reshaping. Rather, my goal is more modest: to reorient how Napster's history is told to better account for its political and economic effects. Napster has long been characterized as a force for *disintermediation*. As Yochai Benkler (2006), who coined the term "commons-based peer production," put it, "users of Napster could connect their computers directly — one person could download a song stored on the computer of another *without mediation*" (419, emphasis added). Economists have understood the effects of the digitization of music as a history of industry disintermediation, with Napster as the first chapter (Waldfogel, 2012).

Instead, I want to stress the necessity of attentiveness to mediation processes more generally in the analysis of digital artifacts. Focusing on mediation cuts against a number of tendencies in popular and academic discussions of technology and politics. Ironically enough, Leah Lievrouw (2015) has pointed out that scholarly analysis of media technologies is plagued by an idealism surrounding them, where the specter of what John Dunham Peters (1999, 9) describes as the possibility of a transcendent "wordless contact" haunts a more materialist discussion of how technologies always shape communicative practices (42). Describing mediation also pushes against what Anna Kornbluh (2024) has described as a cultural logic of immediacy – the lack of mediation – which is a hegemonic value in contemporary capitalism:

as she describes it, "the basis of economic value, the regulative ideal for behavior, the topos of politics, the spirit of the age" (10). Kornbluh reminds us that critical analysis has traditionally focused precisely on mediating processes of "making representation, connections, and meaning" (ibid). Mediation is an essential component of technological apparatuses, as well as of politics, and so we must contend with mediation if we want to be competent as analysts or as political actors. Simply disintermediating relations at the level of architecture or organization is both impossible and undesirable.

My brief discussion of Napster and its mediation focuses on three levels, analytically distinct if not always possible to completely disentangle. I begin with mediation at the protocol level, which discusses Napster's architecture and (aspects of) its infrastructure. I then describe mediation at the interface level, which discusses Napster's affordances. Finally, I outline some aspects of Napster's cultural mediation, which considers how Napster reshaped the meanings, values, and practices of individuals and groups online around a notion of "peer to peer." At each level, I seek to demonstrate how mediation provides a better description and an improved understanding of Napster's politics.

The Protocol Level

As Alexander Galloway (2006) has usefully pointed out, all internet traffic must abide by protocols, and thus is subject to power relations: "the Net is not simply a new anarchical media format, ushering in the virtues of diversity and multiplicity, but is, in fact, a highly sophisticated system of rules and regulations" (69). One might say the same of peer-to-peer ushering in the virtues of flatness and equality – nevertheless, there are rules.

Napster was not an open-source project and so its protocol remained closed off from view. However, efforts to reverse engineer it, to better understand it and to customize its features, yielded evidence of how it operated (Ding et al., 2004). This reveals something far less than the idealized many-to-many system that the term "peer-to-peer" implies. A fully decentralized peer-to-peer architecture did not prevail with Napster. While peers did download information from one another, Napster's architecture still relied upon a centralized server for purposes of listing files available for download. This architecture gave Napster as a company the ability to filter out specific kinds of information in searches, thereby preventing certain files from appearing. The company did indeed enact filters for one million copyrighted works in a desperate attempt to stave off a court injunction to shut it down (King, 2001).

This centralized listing function was ultimately fatal for Napster in its original file-sharing guise. While the company could successfully claim it did not host files and, therefore, was not responsible for providing pirated content, its listing function meant that it could have detected and expelled pirating users. Napster was thus vicariously liable for infringing activity, as the court determined the program functioned identically to the owner of a swap meet who knowingly permitted bootleg media sales on its premise. As a result of this decision, descendants of Napster, such as Grokster and Kazaa, became more fully decentralized, with search and listing functions also distributed across the network of users. This came at the cost of efficiency, and it did not protect these services from the charge of secondary liability. Rather than ruling that these programs had "substantial non-infringing use," courts found they had little appeal beyond their ability to contravene copyright (Burk, 2014).

Napster's protocols also relied on the IP address of computers connected to its network to match peers, which left users vulnerable. While Napster's sign-up process seemed to afford anonymity by allowing user-generated account names, this did not extend to its architecture. Thus, users could be identified via IP address, though the famous incident where Lars Ulrich from Metallica delivered 60,000 pages of users sharing Metallica MP3s to Napster HQ involved only user names. Napster's search also relied upon users querying one of two central servers, each with an IP address. Blocking access to those servers was a simple way for network administrators to block user access to Napster, though, of course, many workarounds were devised (Kasmir, 2002).

Notably, Napster's protocols only listed MP3 files for download. This had a number of effects. First and foremost, this solidified the MP3 as the predominant format for digital music until the streaming

era (McCourt & Burkhart, 2003). Users were less exposed to viruses and malware, as they could not download executable files. Nor could video files or other media be exchanged, further limiting liability and privacy issues. This led to the development of modifications to facilitate downloading of other kinds of files, such as Wrapster, which provided non-MP3 files with an MP3 "wrapper" that would be recognized by the system.

The Interface

The vast majority of users will never directly engage with software at the protocol level. Instead, they will use software packages and interfaces that organize and visualize information. Interfaces are also a site of power and interpellation (Stanfill, 2014). The theory of affordances provides a vocabulary for describing how the design of software and interfaces relates to the individual user's capacity to act, as well as the conditions in which design choices are situated (Davis & Chouinard, 2017). A full walkthrough method (Light et al., 2016) of Napster's original affordances is not possible at this time; additionally, the purpose of this essay is illustrative rather than exhaustive. What follows is a brief discussion of the significant affordances of Napster, as well as socio-cultural effects that go beyond the narrow consideration of record industry profits.

Napster, following the general approach of MP3 technology, afforded searching by individual song. This was not something determined entirely by technology (an entire album or live performance could also, theoretically, be encoded in a single MP3) but by conventions developed in the MP3 piracy scene prior to Napster. Napster's own approach to file sharing was drawn from the user directory structure. Users may have organized their MP3s according to artist, album, genre, or telescoping combinations of categories, but they might also have organized individual files into a generic and undifferentiated "Music" folder. Much commentary on the advantages of Napster had to do with how it "unbundled" albums, allowing users to download only the specific desired songs from an album, often just one or two, rather than purchasing the entire album on a disc. While causality is difficult to prove, a number of commentaries relate the decline (if not "death") of the album format to the rise of digital music files, for which Napster set the model (Leeds, 2007).

Napster also incorporated a chat feature, which allowed users to message one another. However, research on the program concluded that little genuine community engagement happened in its network. Prior to Napster, a participatory community of hackers and fans created a culture of organized digital piracy, which developed its own creative approaches to "releases," community norms, and political positions (Mueller, 2019). The development of Napster effectively automated the more laborious methods of accessing the digital piracy underground, and thereby reduced much of the subcultural community building that had adhered to music piracy (Schäfer, 2009). For all the discussion of "produsage" that circulated around peer-to-peer file sharing at the time (see Bruns 2008), Napster's affordances instead encouraged a simplified consumerist approach to music, falling short even of connoisseurship. There was little in the way of social discussion, identity construction, or music criticism on the program itself.

Cultural Mediation

Here, I want to discuss how understanding Napster at the level of its structure, popularized in a variety of accounts, has contributed to a particular political imagination around "peers." To a great extent, greater than I can go into here, it replicates much of the libertarian techno-optimistic discourse on the flattening of hierarchies and the equalization of power that is supposed to derive inherently from networked forms of organization, discourses that have been extensively critiqued since the 1990s (see Winner, 1997 and Barbrook and Cameron, 1996). Additionally, studies have probed the discourse of "sharing" that originates with Napster and takes on a wider valence in the platform economy (John, 2016). I wish to add a small piece to this larger body of critique by focusing on the way Napster's architecture was described in a disintermediated fashion as "peer-to-peer."

"Peer" is an odd word. In common usage, it means someone of equal status: The word derives from the Latin *par*, meaning equal. But a *peerage* is quite the opposite, an aristocratic title, often hereditary, that indicates a superior position to that of commoners. This meaning originates in the language of the Magna Carta, which insisted that an English nobleman was subject to judgment by peers (*pares*) – other aristocrats – rather than the whims of the monarch. Rather than an etymological curiosity, I want to suggest the ambiguity between equality and hierarchy continues to adhere to "peers" as a subjectivity produced by Napster and its associated discourses, as well as in the use of the term in other contexts.

Peer-to-peer presupposes a flattening, by which each node in the network is judged by the same set of criteria rather than a pre-established hierarchical client-server model. For many commentators, this suggested a form of political equality or even a kind of communism (see Kleiner, 2010). Yet each node is not actually equal: the network sorts results and, therefore, mediates connections based on speed, availability of information, geography, and other qualities. One popular way to view this is as simply meritocratic: the network works in an efficient manner, serving up the most relevant and fastest results without bias towards other nodes based on any other criteria.

A meritocracy is, however, not necessarily egalitarian. Underlying these "meritorious," efficient, and powerful nodes are structural inequalities, such as access to more expensive and more exclusive technical capabilities. This may matter little on a platform for sharing MP3s, such as Napster, but when projected into larger forms of social organization, they can quickly become engines for inequality and discrimination. "Meritocratic" social sorting systems, such as standardized tests, due to their historicity, disadvantage historically marginalized groups (Au, 2022). A number of recent critiques of meritocracy point toward how it legitimates inequality while also fomenting a backlash against egalitarian intervention (Hayes, 2012; Markovits, 2019).

Indeed, chief examples of peer production, such as open source and Wikipedia, do not operate along democratic or egalitarian principles. Rather, those principles are presumed to follow from the peer-to-peer structure of the work, if they do at all. They are by-products rather than components of intentional design. The open-source operating system Linux is run, according to its founder Linus Torvalds, as a "benevolent dictatorship," and, as Felix Stalder points out, meritocracy, rather than equality, is the rule (172). The continued inequalities among Wikipedia editors are well established (see, for example, Shaw and Hargitaii 2018 and Mandiberg 2023). Blockchain projects, which also claim to be democratically peer-to-peer, are rife with "meritocratic" varieties of sexism and other forms of discrimination (Semezin and Gandini, 2021; Semezin, 2023).

The interest in deploying peer-to-peer technical structures to mitigate, solve, or route around social inequality garnered tremendous interest in the wake of Napster, an interest that continues today. Much of the work on these political and organization questions since Napster has been fostered and consolidated by the P2P Foundation, founded in 2005 "to help people, organizations and governments transition towards commons-based approaches to society through co-creating an open knowledge commons and a resilient, sustainable human network" (P2P Foundation). While the mission goals listed on its site claim an investment in "inclusivity, gender equality, and diversity," the organization's founder, Michel Bauwens, has become an increasingly vocal public critic of "wokeness" and "identitarianism" in what former collaborators describe as a shift in messaging towards a "reactionary and racist echo chamber" ("Letter of Disassociation" 2021). Bauwens, for his part, claims that the left's commitments to equality "undermine any strength a nation has by systematically undermining merit and expertise and punishing society's most hard-working and disciplined members" (Bauwens, 2023), a claim that rests on both retrograde racist cliches as well as a "colorblind" notion of meritocracy. While Bauwens himself may be idiosyncratic, there is an ideological alignment between aspects of P2P, meritocracy, and discriminatory and reactionary beliefs, one that goes to the heart of the contemporary right-wing backlash against equality.

Rather than an answer to the deficits of democracy in existing political systems, peer-to-peer simply reposes the question under further layers of architectural and discursive obfuscation. It is precisely by attentiveness to *mediations* – between individuals, between members and organizational structures, between organizations and state apparatuses – that politics can operate. The tantalizing immediacy of

the internet, of which Napster's unleashing of peer-to-peer was a particularly powerful example, directs us to fantasies of spontaneity that presume technological structures will automatically solve political problems.

Ultimately, the belief that Napster represented a revolutionary threat to the music business by disrupting the recording industry was exaggerated, based on a limited understanding of the role of mediating institutions. The recording industry, while often grossly exploitative, was not simply a useless gatekeeper but performed a number of important mediating functions, from advancing capital for artists to produce music to arranging promotion to shaping audience expectations through branding and genre construction. Today, copyright is undiminished, while media piracy has been marginalized. Napster's disruption of music-industry-controlled distribution was, therefore, temporary. Further, Napster's self-effacement of its own mediating role under the banner of "peer-to-peer" made it easy for other platforms to take its place once it was gone. Rather than equality, Napster's legacy is it created, practically singlehandedly, an audience for digital music that was accustomed to abundance and low prices. This audience was easily converted from "peers" to consumers of the "celestial jukebox" now provided by streaming services such as Spotify, which charge a low fee for almost limitless access. While this has dramatically restructured the practices of music consumption, it has left structures of exploitation and commodification largely intact. The Napster revolution never was.

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