

Platform Analogies: How Bookstores, Libraries, and Supermarkets Can Inform Thinking on Social Media

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A growing body of research contends that social media platforms (SMPs) are not “mere intermediaries” in a worthwhile effort to convey the magnitude of platforms’ influence on public information. However, this article argues that their unprecedented scale notwithstanding, SMPs can be usefully analogized with information intermediaries that preceded them—and that conceptualizing them in this way need not understate their power. Via an examination of brick-and-mortar booksellers, public libraries, and supermarkets that sell periodicals, this study finds that information intermediaries have long shaped the cultural and political landscape via three key mechanisms that also apply to contemporary SMPs: strategically directing human attention, moderating objectionable content, and intervening in the production of third-party content. By taking the political and normative dimensions inherent in information intermediation seriously, this article deepens contextual understandings of SMPs and suggests future avenues for platform change.

Keywords: social media platforms, analogies, information intermediaries, libraries, bookstores, supermarkets

The last several years have seen the emergence of mounting concerns about the power of social media platforms (SMPs) and their impact on public information and democracy. In an attempt to forestall regulation and quell employee dissent, many of the major social media companies have signaled a willingness to take greater responsibility for the content that appears on their sites. After years of determined resistance, companies like Facebook/Meta and Google/Alphabet seem increasingly willing to acknowledge that they are not “just” technology companies (Gillespie, 2010; Kreiss, 2020; Napoli & Caplan,

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2017). Indeed, we are in a moment of opportunity not only to better understand platforms but also to reimagine what they could be.

However, if SMPs are not just technology companies, then what exactly are they? The comparators we use to understand platforms shape both our normative expectations of these firms (Napoli & Caplan, 2017) and the affordances of the technologies they produce (Markham, 2020). Scholars and commentators have advocated for various analogies with which to make sense of platforms, including publishers or media companies (see, e.g., Bell, 2016; Bell & Owen, 2017; Bogust, 2016; Caplan, 2016; Ingram, 2012; Napoli, 2019; Napoli & Caplan, 2017), financial fiduciaries (Balkin, 2015), physical and social infrastructure (Pariser, 2020; Plantin, Lagoze, Edwards, & Sandvig, 2016), and even dangerous consumer products like tobacco (Donovan & Nilsen, 2021).

These divergences in comparators notwithstanding, an emerging consensus argues that SMPs are not “mere” intermediaries that broker information produced by others (Gillespie, 2018, p. 7). This line of thinking stems from a worthwhile effort to push back against SMPs’ longtime insistence that they are “nothing but” technology companies, and instead center the magnitude of their influence on democratic self-governance and the public sphere on which it depends (Ananny, 2018). It is indeed crucial to point out the ways in which SMPs are meaningfully distinct from traditional communication conduits such as the post office and landline telephone networks (Gillespie, 2018).

However, in this article, we consider the possibility that SMPs are in fact best understood as information intermediaries. We make two central claims. First, we contend that SMPs can be usefully analogized to other information intermediaries that predate them, especially those that purvey media and information products made primarily by third parties. Information purveyors are usually overlooked in conversations about platform governance—understandably, given the differences in the business model between retailers, which sell information products to customers, and SMPs, which sell users’ attention to advertisers. Yet we demonstrate that examining the ethos and operations of earlier information intermediaries, such as (1) brick-and-mortar booksellers, (2) public libraries, and (3) supermarkets that sell magazines and other periodicals, can lead to a greater understanding of SMPs.

Our second claim is that *contra* much of the existing platform governance scholarship, conceptualizing platforms as information intermediaries need not diminish the magnitude of their influence or absolve them of moral responsibility. Indeed, we argue that three of the key mechanisms through which platforms currently shape the cultural and political landscape were also employed by antecedent intermediaries, with notable effects on the public information environment. First, information intermediaries *amplify* certain types of content and *strategically direct* human attention toward some pieces of information over others; second, they have *content moderation procedures* for making certain information invisible, unavailable, or inaccessible when it is deemed offensive or otherwise problematic; third, although information intermediaries generally do not produce their own content, once an intermediary amasses enough scale and power, it can *intervene in production processes* to shape the creation of cultural and information commodities.

In making this argument, we harness what science and technology studies scholar Claudia Schwarz-Plaschg (2018) calls the analogical imagination, which “helps to understand the relation of new and emerging technologies to other technologies or cases,” thereby situating the former “in a specific historical and sociotechnical context” (p. 141). The analogical imagination is in some ways akin to metaphor analysis and the “mental models” approach, both of which examine the heuristics and figures of speech through which emerging technologies are understood (see, e.g., Gentner & Gentner, 1983; Kempton, 1987; Markham & Tiidenberg, 2020; Puschmann & Burgess, 2014). However, analogical reasoning focuses less on discursive frames and figures of speech that are commonly applied to technological artifacts and systems and more on highlighting similarities among seemingly disparate entities to see them in a new light (Bartha, 2013/2022; Schwarz-Plaschg, 2018). The analogical imagination allows for the possibility that multiple analogies may be applicable to a given sociotechnical artifact and that each might highlight something important. The goal of analogical analysis, then, is not to find the sole “correct” comparator but rather to push our thinking in unexplored directions by analyzing similarities among entities (Schwarz-Plaschg, 2018).

The article proceeds as follows. We first define intermediaries and address the key benefits and challenges of conceptualizing platforms as intermediaries. Next, drawing on three case studies of information intermediaries—bookstores, libraries, and supermarket magazine racks—we discuss key mechanisms by which these physical information intermediaries influence the public sphere, drawing parallels with SMPs along the way. We conclude by exploring the ways in which conceptualizing SMPs as information intermediaries can lead to a clearer understanding of these entities and suggest avenues for change, both within SMPs and at the field level.

Defining Information Intermediaries

Following Womack (2002), we define information intermediaries as institutions that “collect, organize, and distribute information to their clients” (p. 129). Internet information intermediaries more specifically are defined as institutions that “host, give access to, index, or facilitate the transmission and sharing of content created by others” (Mackinnon, Hickok, Bar, & Lim, 2014, p. 21). The general purpose of an information intermediary is to add value to a person or institution’s interactions with information (Womack, 2002). Although information intermediaries can come in both market and nonmarket forms, the high cost and difficulty of managing information on a large scale can often result in a monopoly or oligopoly.

Although some scholars have usefully characterized SMPs as intermediaries, arguing that this role allows them to operate as “points of control” that “exert direct power over online rights” (DeNardis & Hackl, 2015, p. 769; see also Nielsen & Ganter, 2017; Síthigh, 2020), others have pointed out challenges for conceptualizing platforms as information intermediaries. Perhaps the most glaring barrier to comparing SMPs and information intermediaries is the former’s use of algorithms to rank and moderate third-party content. The algorithms of SMPs have profound implications for the scale and speed at which they operate, whereas the complexity and inscrutability of these models (often even to those who programmed them) pose unique accountability challenges (Gillespie, 2010, 2018).

It is thus unsurprising that analyses of SMPs have focused heavily—at times almost exclusively—on the way they construct and deploy algorithms. Yet we must not lose sight of the fact that SMPs’

algorithms, while unprecedented, are but a novel *approach* to the long-standing practice of curating information. There is value in analyzing how SMPs represent not only points of departure from their predecessors but also points of continuity: Doing so can illuminate aspects of SMPs' role, structure, and operations that are significant but have thus far been underexamined.

The Case Studies

We consider three case studies of other information intermediaries—libraries, bookstores, and supermarket magazine racks—to identify common attributes, problems, and possible reforms for SMPs moving forward.

Libraries

Libraries as institutions and librarians as professionals have a long history of thinking critically and deliberately about their role as information intermediaries. Although libraries come in various forms—from public to private collections, to schools and universities—the field's high degree of professionalization has produced a shared set of practices and normative values. Formalized as a field of study in the 19th century (Richardson, 2010), library science has developed distinct structures, roles, and policies about how to curate and manage information; organizations like the American Library Association (ALA; founded in 1876) articulate the normative values of the library profession. As mostly nonprofit institutions with civic and democratic missions, libraries seek to manage their collections in ways that best serve a "general public" (Vnuk, 2015). Librarians themselves are also intermediaries—as trained information experts, a core aspect of their work is assisting patrons of various backgrounds in finding information (Vitak, Liao, Kumar, & Subramaniam, 2018).

Despite continuing to enjoy overwhelming public support (Pew Research Center, 2013), in the 21st century, public libraries have faced challenges both to their role and their perceived legitimacy as information intermediaries. As early as the 1990s, library scholarship has explored whether the digital age has brought on processes of "disintermediation," which have worked to diminish or displace the role of the librarian as an information intermediary (see, e.g., Ball, 2012). In recent years, the ALA has reported a surge of attempts to remove or ban books from libraries across the United States (Harris & Alter, 2022) although such efforts have been so far broadly unpopular (ALA, 2022).

Bookstores

Bookstores—both independent sellers and, to a lesser extent, chains—also have long grappled with their normative role as information intermediaries. Miller (2008) characterizes booksellers as "reluctant capitalists" with a fraught and uncertain relationship to commerce despite having a solidly commercial orientation. Bookselling in the United States became a defined industry during the post-Civil War period, when its first trade associations were formed. The industry remained largely decentralized until the mid-20th century when chains such as Barnes & Noble (established 1917), Waldenbooks (established 1933), and Borders (established 1971) grew in market share and influence. As a growing percentage of books were sold by chains, department stores, and supermarkets in the second half of the 20th century, the status of

the book as a market commodity (and by extension, of the bookseller as an intermediary) became hotly contested within the profession. Independent sellers tended to view the book as a "sacred product" and thus resisted any sales technique that smacked of "excessive commercialism," whereas wholesalers, large chains, and other book retailers disputed the uniqueness of the book and championed the rationalization of bookselling (Miller, 2008, p. 28).

Most point to the debut of Amazon in 1994 as the most significant challenge to both independent and chain bookstores and the role of booksellers as information intermediaries (Rosen, 2022). However, nearly 30 years later, studies suggest that by reiterating their roles as community centers, curators of information, and convening spaces, physical bookstores are revitalizing their role as intermediaries (Raffaelli, 2020).

Supermarket Magazine Racks

Supermarket magazine racks provide another unique lens on information intermediaries. Although newspapers, magazines, and periodicals have been commonly displayed in checkout lanes since the late 1970s (Chilton, 2020), rendering supermarkets an information purveyor, there has been little debate or consideration within the industry about what that role entails or requires. Put another way, supermarkets have traditionally drawn little, if any, distinction between their information inventory and their other retail products. Supermarket displays were once considered the "hottest outlets" for single-copy magazine sales; supermarkets could charge publishers a premium of 20%–30% of the cover price for the coveted spots, and "slow movers" risked being displaced by new entrants (Kleinfield, 1979). Thus, checkout magazine racks are intended to produce and maintain a certain type of consumer public—namely, one that is engaged. Tabloids have historically used shocking headlines and images to attract readers' attention, and many mainstream magazines adopted similar styles (Peterson, 1996). Supermarket chains' reliance on tabloids to capture shoppers' attention has not been without controversy, yet most chains have been unwavering in their commitment to a mode of information curation and presentation that is heavily market oriented.

What Information Intermediaries Do?

Our analysis of these case studies finds that information intermediaries shape the public via three key mechanisms that they share with SMPs: strategic direction of attention, moderation of content, and intervention in third-party content production. Taken together, these mechanisms support our claims that (1) platforms can be usefully understood as information intermediaries; and (2) information intermediaries have long played a significant, though underanalyzed, role in shaping the public information landscape.

Strategically Direct Attention

As their user numbers have grown, SMPs have taken on an increasingly active role in strategically directing users' attention toward content that is most likely to maximize their time on and engagement with the sites, rendering the platforms more attractive to advertisers. In the initial version of Facebook, users had to actively seek out the content they hoped to find. X (formerly Twitter) and Instagram were always feed based, but their feeds were in reverse chronological order until 2016, when both companies transitioned

to algorithmically curated feeds (Heath, 2016). The progression of SMPs toward heavier-handed algorithmic curation initially prompted a backlash among users, in part because it cut against platforms' longtime insistence that they are "open, impartial, and noninterventionist" (Gillespie, 2018, p. 7).

Although SMPs are unique in their use of algorithms to curate information, the strategic direction of human attention—that is, the goal SMPs' algorithms are programmed to achieve—is a long-standing and fundamental aspect of information intermediation. Intermediaries—even those, like bookstores and libraries, which pride themselves on being sites for the free exchange of ideas—have always engaged in the amplification of some information over other information. Libraries, for example, engage in deliberate collection development and periodic "weeding," in which books deemed outdated, rarely checked out, or irrelevant are culled from the collection (Vnuk, 2015). In the case of for-profit information intermediaries, the direction of attention at times occurs through explicit editorial curation that is at least somewhat set apart from short-term market considerations, such as when an independent bookseller has a shelf devoted to "staff picks." More often, though, intermediaries direct consumers' attention in the hope of increasing the odds of a purchase (e.g., predicted bestsellers will be given plum real estate in book displays; supermarket tabloids are stocked on magazine racks next to checkout lines because, in the pre-smartphone era, such placement guaranteed a captive and likely bored audience).

Often, intermediaries direct attention toward information products whose producers have paid to be the recipient of that attention. For example, supermarkets and other retailers have long been engaged in pay-for-display practices, in which manufacturers pay for their products to be stocked in highly visible areas (Kennedy, 2005). In the bookselling business, similar arrangements, called "cooperative advertising agreements," originated in the Depression era (Kennedy, 2005). The practice became widespread in the 1980s and 1990s: During this period, chain booksellers such as Waldenbooks and Barnes & Noble began soliciting fees from publishers for featuring their books in high-visibility locations (e.g., front table, front window, and endcap displays), placing them cover-facing-out (as opposed to spine-out) on store shelves, and including them in promotional initiatives such as "Waldenbooks Recommends" or Barnes & Noble's "Discover Great New Writers" program (Kennedy, 2005; Miller, 2008, p. 100).

Cooperative advertising practices have long been maligned by critics who feel they debased the sacred nature of books as distinct from other market commodities (Miller, 2008). Critics have also pointed out that only large publishers can afford to pay booksellers' fees—and are often only willing to do so for titles that are already expected to sell well—thus exacerbating the winner-take-all dynamics of the book business, in which a small number of authors, publishers, and booksellers dominate the market (Kennedy, 2005). Although some large publishers tout special displays as boosting sales significantly, others complain that pay-for-display fees are akin to extortion: If publishers do not pay, the chain booksellers could retaliate and "suddenly lose interest in carrying many of their books" (Miller, 2008, p. 101). The pressure experienced by large publishers to purchase special-display placement for their titles, as well as their reluctance to publicly criticize the chains' cooperative advertising practices, are a testament to the immense power that chain booksellers once wielded over the book business—a power markedly similar to that of contemporary SMPs.

Indeed, there are manifold parallels between chain booksellers' pay-to-display agreements and platforms' arrangements with content creators. Contemporary cultural producers rely on large platforms for public awareness and distribution of their content; as corporate entities with concentrated market power, platforms can elect to make particular types of content, and even particular users, more or less visible at will (Gillespie, 2010, 2022). Thus, well-resourced content creators compensate platforms to "surface" their posts to more users, in the hope that such an arrangement will not only increase user attention to their content and deliver a resultant revenue and/or brand-awareness boost, but also help them stay on favorable terms with the platform.

Meanwhile, creators with fewer material resources resort to "free" visibility-boosting tactics in the hope of attracting users' attention, such as the strategic use of hashtags, headlines, and images carefully "optimized for social," and reciprocal engagement pods (O'Meara, 2019; Ziewitz, 2019). Some of these strategies are subsequently and arbitrarily labeled as "algorithm-gaming" by platforms, and their practitioners are punished via content demotions or even suspensions from the platform (Petre, Duffy, & Hund, 2019). Just as with the bookselling example, these dynamics further intensify the winner-take-all dynamics of platformized cultural production, in which a small number of creators and platforms are systematically and persistently given an advantage (Nieborg & Poell, 2018). In the heyday of chain booksellers, critics complained that the structural dynamics of the bookselling market produced a shallow literary landscape (Miller, 2008); contemporary skeptics of SMPs proffer a similar critique.

These similarities matter because they point to a normative question that is fundamental not only to SMPs but also to intermediaries more broadly: What is the moral valence of public information as an entity? Put another way, is public information sacred—and thus too important to be left entirely to the whims of the marketplace—or is it akin, normatively speaking, to any other consumer good, such as shoelaces or yogurt?

As this section has illustrated, different intermediaries have arrived at different answers to this question. Perhaps unsurprisingly, given their not-for-profit status, public libraries tend to treat information as a sacred entity whose responsible distribution requires thoughtful and deliberate procedures, such as periodic weeding, carried out by professional experts. Supermarkets, by contrast, have typically treated information products according to the same supply-and-demand logic that applies to any other product in a store's inventory—a position that, as the next section will show, has periodically made them the target of public opprobrium. In the book-retailing industry, the normative status of public information has been fodder for heated and ongoing debate, with independent booksellers typically advocating for "the sacred quality of the written word" (Miller, 2008, p. 37), whereas large chains, department stores, and wholesalers have been more likely to view books as akin to noninformation market commodities, such as "dry goods and hardware" (Miller, 2008, p. 33), and thus eligible to be unproblematically subject to pay-to-display arrangements. Amazon has carried this logic even further: When devising the site, Jeff Bezos famously chose to sell books because of their vast selection and ease of storage, not because he had a special fondness for the written word (Hamilton, 2021).

For their part, SMPs historically have not imbued information with a sacred status. In accordance with their growth- and attention-based business model, platforms famously program ranking algorithms to prioritize content that draws user engagement, regardless of its civic value. There are, however, notable

exceptions: For example, facing criticism for spreading COVID-19 falsehoods, Meta amplified authoritative vaccine-related content to at-risk communities (Meta, n.d.). This suggests that intense external pressure can push SMPs to direct attention to less engaging content. In addition to rendering some content especially visible, intermediaries make other content—usually materials that are deemed objectionable in some way—less visible or invisible. Such moderation work is the subject of the next section.

Moderate Content

Many of the controversies surrounding SMPs concern content moderation: How do, and how should, companies decide what types of content are sufficiently “offensive, vile, or illegal” to be removed from the platform (Gillespie, 2018, p. 5) or have their visibility significantly reduced (Gillespie, 2022)? How should content rules and policies be enforced? What is the process for changing the rules as norms and circumstances evolve? These questions have inspired a robust research literature that addresses the normative aspects of content moderation (Gillespie, 2018), the legal and governance challenges it presents (Klonick, 2018), and the often invisible, poorly compensated workers who perform the difficult labor of reviewing flagged content and determining whether to remove it (Roberts, 2019). The stakes of content moderation extend beyond what users see when they open an app; content moderation raises fundamental questions about how platforms conceptualize their role in the social world, and whether they are executing that role responsibly. Both because of SMPs’ immense scale and the fact that their content is not supplied primarily by institutional information producers (i.e., organizations that implement their own systems of quality control for vetting content and thus shoulder some of the moderation burden), the question of how platforms create and enforce content policies is particularly urgent.

Yet the fundamental *dilemma* of content moderation—the difficulty of determining both the principles according to which content rules should be developed and the mechanisms for enforcing the rules—is not unique to SMPs but rather endemic to information intermediaries. Although discussions of content moderation are often framed as debates about the nature of speech, they also reveal how an intermediary conceptualizes the people who use its service and the intermediary’s obligation to them. Are the users/patrons/consumers democratic subjects whose knowledge, civic participation, and/or cultural enrichment can be enhanced by an intermediary’s expert guidance? Or are they marketized individuals with fully formed information and aesthetic preferences, which the intermediary should fulfill without input or interference?

These rival conceptualizations of the user exist as poles on a spectrum along which our case studies are situated at different (and sometimes shifting) points. At one end is the public library, whose institutional identity is rooted in an educational and democratic mission. Librarianship’s choice of the term “patron” to refer to those who use libraries seeks not only to convey that library-goers enjoy and support libraries but also to set apart the librarian–library-goer relationship from a marketized seller–buyer relationship (see e.g., Pundsack, 2015).

Consistent with their community-driven mission (and in accordance with the 1963 Supreme Court decision that mandated states to establish “adequate procedural safeguards” before suppressing books deemed “obscene”; *Bantam Books Inc. v. Sullivan*, 1963), libraries consider patrons’ complaints about

“objectionable” content via transparent, deliberative, and time-consuming procedures. Patrons who want a particular book removed from a library’s collection may file a “challenge,” which is adjudicated by the library’s director and a committee of staff members. The merit of each challenge is considered against the library’s public collection development policy and stated core values (such as putting a premium on the “freedom to read”). If the committee’s ultimate decision is not in the patron’s favor, the complainant may appeal to the library’s board of directors, which comes to a final decision (ALA, n.d.).

Book challenges are an example of an intermediary resolving content controversies via a highly systematized, transparent, and user-involved process. In this model, content moderation decisions are not made in an ad hoc or secretive manner: Rather, public libraries refer to an explicitly stated, profession-wide set of normative values to adjudicate challenges, which lend institutional legitimacy to decisions. Although the system is not immune to accusations of bias (Kurtz, 2022), it has allowed public libraries to inhabit the educational role that is central to their institutional identity while also being accountable to the public.

Booksellers’ approach to content moderation illustrates instructive similarities and contrasts to the library model. Because of their for-profit orientation, independent booksellers have always existed closer to the user-as-consumer end of the spectrum than the public library: Commercial considerations were, by definition, a concern. Yet as the U.S. book trade matured during the Gilded Age, a professional ethos developed according to which books, though indisputably a market commodity, should nevertheless “serve the individual *and* the nation” (Miller, 2008, p. 27; emphasis added). Booksellers of this era saw themselves as contributing to the cultural refinement and heightened knowledge of the public; many spurned the kinds of popular books, such as romance novels, that were thought to cultivate humanity’s baser instincts.

However, the rise of the chain bookstore in the 1960s and 1970s marked a departure from this conceptualization of the bookseller as a knowledgeable guide and shaper of individual preferences and the public. Chains decried the independents’ approach as elitist and paternalistic, instead touting what they framed as a “nonjudgmental” approach to bookselling, in which the book buyer was conceptualized as a “sovereign consumer” (Miller, 2008, p. 67). Accordingly, the bookseller’s role was to expand the choices available, regardless of the former’s perception of their quality.

The embrace of the intermediary’s service role is even more pronounced in the case of supermarket magazine racks. Tabloids such as the *Weekly World News* and the *National Enquirer* have a reputation for publishing maximally lucrative content, regardless of whether it adheres to basic standards of accuracy or civic value (Bird, 1992; Morton, 2009). For their part, supermarket chains applied to magazine racks the same strictly commercial logic they applied to foodstuffs: Publications were stocked for no other reason than that they sold reliably (Srinivasan, 2023).

Yet despite their disinterest in the normative dilemmas of information intermediation, supermarket chains have periodically found themselves mired in content moderation controversies. The most salient of these occurred in the weeks after Princess Diana’s death in 1997, which occasioned a massive backlash against the tabloids whose paparazzi helped cause the car accident that killed her. Supermarket chains suddenly faced public pressure to remove (or, as we might now put it, “deplatform”) tabloids with lurid content about the princess or the scene of the accident.

Unaccustomed to being the subject of an intermediation-related firestorm and having few policies in place to manage such a controversy, chains scrambled to devise a range of ad hoc content moderation guidelines. Some supermarket and retail chains elected to temporarily remove the offending tabloids from racks until the controversy died down. Some continued to stock the magazines but put laminated opaque placards over their covers, such that a consumer would need to actively remove the card to view the tabloid (Blank, 1998)—a technique that has also been employed for *Cosmopolitan* and other magazines whose covers display sexualized language or imagery (Thompson, 2000). Still others attempted to tease out fine-grained distinctions between acceptable and unacceptable content: For example, nationwide chains Kroger and Thriftway refused to stock tabloids that printed scenes of the crash, while the Utah chain Smith's Food & Drug Stores allowed tabloids with photos of the crash unless they depicted the victims (Knudson, 1997). Finally, some chains opted to keep the tabloids on the racks with no restrictions, on the grounds that, as one spokesperson put it, "We're retailers. We're not here to censor any magazines" (United Press International, 1997, para. 2).

No doubt many of these actions (and inactions) will sound familiar to those steeped in platform content moderation controversies. To examine the parallels more closely, it is particularly useful to look at the case of Facebook, which has been engulfed in a rash of content moderation controversies in recent years. Like supermarkets and chain booksellers, Facebook's approach to content moderation, especially in the platform's formative early years, revealed a conceptualization of the user that is akin to Miller's (2008) "sovereign consumer": that of an individual who comes to the platform with fully formed information preferences that should be catered to by Facebook's personalization algorithms (see, e.g., Kirkpatrick, 2011).

This commercialized conceptualization of the user—and the initial, relatively laissez-faire approach to content moderation that followed from it—was good for Facebook's bottom line. But it also has caused frequent public relations (PR) crises for the company in instances when users post and engage with content that other users and public figures condemn as abusive, violent, or false. Because Facebook long resisted categorizing itself as an "arbiter" of truth, normative values, or aesthetic taste, the company has repeatedly been in a position not unlike the supermarket chains in the wake of Princess Diana's death: scrambling in response to mounting public pressure to make hasty decisions about, first, what constitutes unacceptable content, and second, what to do about it. For example, in response to a backlash in 2016, Facebook eventually reinstated a Pulitzer Prize-winning 1972 photograph of a young Vietnamese girl running from a napalm attack, which had been repeatedly removed on the grounds that it violated the platform's rules against nudity (Scott & Isaac, 2016).

Over time, Facebook's approach to content moderation has become less ad hoc and more systematized and transparent. The platform's content guidelines, when finally made public in 2018, ran to 27 pages. User-flagged posts undergo an internal review that determines whether the post violates the content rules, not unlike a challenged library book. As of 2020, users who disagree with Facebook's internal review decision can appeal to the Facebook Oversight Board, a quasi-independent group of experts that the company convenes and compensates to make binding decisions about controversial content moderation cases.

Despite these indications that Facebook is becoming more library-like in its approach to content moderation, telling differences persist: Although book challenges are reviewed by full-time employees of the public library system, flagged SMP content is often reviewed by poorly paid third-party contractors, many of them located in the Global South, who are expected to make a determination in as little as 10 seconds per post (Fisher, 2018), and who turn over frequently because of the punishing working conditions and the traumatizing nature of the work (Roberts, 2019). The sheer scale of appeals to content moderation decisions has far outstripped the capacity of the Oversight Board, leading some to deride it as little more than a PR tactic. Others have noted that Facebook's content guidelines, despite having grown complex and detailed over the years, are riddled with inconsistencies and seemingly arbitrary rules (Angwin & Grassegger, 2017). Indeed, the platform's lack of accountability to a public means that its guidelines were created and implemented in a largely nontransparent fashion (Wong & Solon, 2018).

In sum, like the supermarket chains that preceded it (albeit with much higher stakes), Facebook thrust itself into an information-intermediary role without an articulation of and strong commitment to a set of normative values about what that role entailed. The results have been predictably inadequate for the requirements of a responsible information intermediary.

Intervene in Production Processes

A hallmark of information intermediaries is that they do not produce much—if any—original content in-house. However, if an intermediary becomes a sufficiently central node in an information distribution system, it can wield both indirect and direct influence over third-party content production. When SMPs tweak their algorithms to favor particular types of content, they exert intense, although indirect, pressure on producers to adjust their offerings accordingly. For example, in 2015, Facebook abruptly announced that the news feed would now amplify video posts over other types of media, leading newsrooms to “pivot to video” via dramatic newsroom restructuring that could not be easily undone when Facebook backtracked shortly thereafter (Meese & Hurcombe, 2020).

Also important, though less discussed, are the direct ways in which platforms influence processes of content production. Meta periodically publishes “best practices” guidelines for publishing higher-performing content on Facebook and Instagram (Meta, 2018). In 2017 and 2018, respectively, Facebook and Google launched initiatives geared toward helping journalists leverage online tools and social media for more effective distribution of their articles, including conducting trainings in newsrooms (Papa & Kourou, 2023). Facebook, X, and Google have also taken an active role in shaping strategy for political advertising, at times even embedding in campaigns as “quasi-digital consultants” (Kreiss & McGregor, 2018). Though there is debate about whether such relationships are mutually beneficial for platforms and content producers or represent “infrastructural capture” of the former over the latter (Nechushtai, 2018), there is no question that platforms directly intervene in the production of creative, news, and political content.

Here, too, SMPs bear similarities to other information intermediaries. In their heyday, chain booksellers exerted not only indirect sway over the book publishing industry via buying and display practices but also more direct forms of influence. In 1973, B. Dalton, then one of the largest and most powerful bookselling chains in the United States (later bought by Barnes & Noble's parent company), began playing

a quasi-consulting role by offering publishers “expert advice on a title’s potential to sell *before* it is accepted for publication,” to “help publishers be more selective about what they publish, and encourage them to check with us on titles they are not sure about” (Miller, 2008, p. 77; see also Powell, 1983). Although B. Dalton presented this advice as a benevolent “service” to publishers, it also illustrated the chain’s immense distributive power in the book business.

The way we think about (and govern) communication and media has long hinged on an assumed distinction between entities that are *conduits* for information (e.g., Internet service providers, landline telephone companies, the post office) and entities that produce *content* (newspapers, book publishers, record labels, etc.; Gillespie, 2018). Gillespie (2018) and others have argued that while platform companies thus far have been conceptualized and regulated as conduits (e.g., they are protected from legal liability for the content that users post on their platforms via Section 230 of the Communications Decency Act of 1996), the nature of platforms necessitates a reconsideration of the conduit versus content binary. Platforms are neither simply conduits nor content but instead a novel “hybrid of the two” (p. 41).

As the B. Dalton example suggests, however, this hybridity is not altogether novel: Information intermediaries have always blurred the line between conduit and content. Although B. Dalton never published its own books, the company insinuated itself into the system by which publishers acquire books, thereby molding the production process to its strategies and preferences. Indeed, as B. Dalton grew more powerful and accounted for a larger share of books sold in the United States, publishers could not afford to reject or ignore the bookseller’s “advice” about which books to acquire. A strikingly similar dynamic has manifested with platforms and news publishers: The former cultivates in the latter a “fear of missing out” on opportunities to collaborate with or receive strategic advice from SMPs (Nielsen & Ganter, 2017, p. 1602).

The parallels between platforms’ and book chains’ quasi-consulting “services” illustrate that the content/conduit hybridity that has been attributed to platforms is not unprecedented: Rather, we see that a version of this hybridity has manifested in previous generations of large and powerful information intermediaries. This, in turn, suggests that the content/conduit hybridity that characterizes SMPs is not a result of their unique technological characteristics but rather of the centrality of their location in an information distribution system.

Discussion and Conclusion

The way we conceptualize platforms, and the way they conceptualize themselves, matter for what we expect of these companies and how they operate. This article has argued that we need not understand SMPs as media companies/publishers, nor dismiss the notion that they are “merely” intermediaries, to grapple with the scope and significance of their impact. Indeed, drawing analogies with information intermediaries that once inhabited a structurally similar position to SMPs shows that there is nothing “mere” or “neutral” about intermediaries. Information intermediaries have long played a significant role in shaping public culture and discourse in ways that are often underestimated, overlooked, or hidden.

The comparisons we have drawn between SMPs and our case studies are imperfect. Although analogical analysis spotlights similarities by design, two major differences between SMPs and other

intermediaries nevertheless are important to acknowledge: SMPs' unparalleled scale and their use of algorithms in ranking and filtering third-party content. Given that these unique attributes of SMPs exert a strong influence over the curation and distribution of information, it is fitting that they have received the lion's share of analytical attention. Yet there is value in examining how SMPs represent not only novelty but also continuity. Historically contextualizing SMPs as information intermediaries allows us to sort out what is truly unprecedented about them (their scale and methods) and, just as importantly, what is not (the role they play).

Even more importantly, this analogical endeavor allows us to see more clearly that normative questions with which SMPs, policy makers, and scholars are now wrestling are not unique to SMPs but are in fact fundamental to information intermediaries. As we have shown, two such questions stand out as especially important and enduring. The first concerns the moral status of public information as an entity: Should it be understood as a sacred product because of its unique role in democracy, or as a market commodity akin to any other? The second question concerns the users of an information intermediary: Are they best conceptualized as, above all, democratic subjects whose interests and knowledge should be responsibly shaped by information experts? Or as consumptive subjects whose existing tastes and preferences should be unquestioningly catered to? Information intermediaries' answers to these questions typically hinge on their orientation to the market: Libraries, with their nonprofit status, fall on one end of the spectrum; supermarkets and chain booksellers, with their unabashed profit orientation, fall on the other; independent booksellers, with their ambivalent relationship to advanced capitalism (Miller, 2008), typically have fallen somewhere in-between.

Where do SMPs fit into this schema? The answer has changed somewhat over time and will likely continue to do so. In their early days, the major platforms evinced a supermarket-like mindset about the conceptualization of their users, the special normative status (or lack thereof) of public information, and themselves as information intermediaries—but with much higher stakes. For example, scholarly work and investigative reporting have shown that platforms like Facebook and YouTube initially approached content moderation haphazardly, erring on the side of laxity and crafting bare-bones (and often secret) rules that were reactively adjusted in ad hoc fashion during moments of controversy (Buni & Chemaly, 2016). Yet as platform companies grew and matured, they crafted more detailed and transparent policies and procedures meant to govern what content is impermissible, and, in the case of Facebook, subjected themselves to quasi-independent oversight (Klonick, 2021).

Still, there is evidence that after a brief period of increasingly, if tepidly, embracing their civic role, platforms are now backsliding: Facebook has tweaked the news feed algorithm to deemphasize news (Mak, 2018); after buying Twitter in 2022, Elon Musk dismantled the Trust & Safety team and dramatically relaxed restrictions on hate speech and disinformation (Roose, 2022). These changes suggest that the major platforms may be reverting to their original conceptualizations of the user as sovereign and public information as having no special moral status (Klonick, 2023).

Considered in the context of Silicon Valley's rapacious capitalism and deep libertarian roots (Turner, 2006), this regression is not altogether surprising. At the same time, it should not be seen as inevitable. To be sure, it is unlikely that platform executives will ever conceptualize SMPs as

publishers/media companies, nor are they likely to be regulated as such. It also is improbable that SMPs will emulate libraries or other not-for-profit institutions that see themselves as operating in public interest. Yet pressure, exerted consistently by various internal and external stakeholders, might be capable of pushing platforms away from the abdication of civic responsibility that characterizes the supermarket end of the information-intermediary spectrum.

It is beyond the scope of this article to determine exactly what shape this pressure should take and what specific changes it should work to bring about, but our case studies suggest two potential directions. First, at the field level, we believe that the development of shared professional ethics codes for data scientists and other tech workers could play a valuable role in platform accountability. Professional associations such as the ALA and, to a lesser extent, the American Bookseller Association have facilitated the development of shared values and commitments in those fields—and, crucially, have made space for normative disagreements to be publicly discussed. It must be acknowledged that professional norms are no substitute for structural reforms and that ongoing attempts to create field-level spaces focused on norms and accountability in the data science realm have been vulnerable to corporate capture (Young, Katell, & Krafft, 2022). Still, recent tech-worker organizing efforts such as the #techwontbuildit movement have shown a willingness among high-tech professionals to develop and act on shared normative commitments, at times with notable efficacy (Tveten, 2019). We see potential in the further development and enactment of field-level normative commitments for platform workers even if they are not formally codified.

Our research also suggests possibilities for change at the organizational level. Although SMPs have historically been focused on achieving vast scale for relatively low overhead, our case studies illustrate the potential of attending to context. Indeed, some large brick-and-mortar intermediaries are finding that centralized decision making at scale is often not normatively or commercially optimal for the curation and provision of information: Barnes & Noble has in recent years brought itself back from the brink of bankruptcy by granting local store managers and employees more power to determine book selection and displays based on their knowledge of the community (Harris, 2022). Although the major SMPs are highly unlikely to fundamentally rethink their business model, recent turmoil at companies like Facebook and X has created an opportune moment for scholars, technologists, and users alike to explore the potential of “downscaled” (Bogost, 2022) and “decentralized” (Liebeskind, 2023) social media.

We conclude with a call for further research that enlists analogies as tools to think about what SMPs are and what they could be. Because several key features of SMPs are without historical precedent, no single analog will match them in every respect. Yet “trying out” multiple, varied analogies can shed light on how SMPs represent not only a *departure* from analog modes of information curation and distribution but also a *continuation* of them. Examining institutions that have confronted similar normative questions and have mediated information in various ways—some salutary, some harmful, some in-between—helps us consider a wider array of possible paths forward for SMPs.

References

- American Library Association. (n.d.). *Challenged resources: An interpretation of the library bill of rights*. Retrieved from <https://www.ala.org/advocacy/intfreedom/librarybill/interpretations/challenged-resources>
- American Library Association. (2022). *Voters oppose book bans in libraries*. Retrieved from <https://www.ala.org/advocacy/voters-oppose-book-bans-libraries>
- Ananny, M. (2018). *Networked press freedom: Creating infrastructures for a public right to hear*. Cambridge, MA: MIT University Press.
- Angwin, J., & Grassegger, H. (2017, June 28). *Facebook's secret censorship rules protect white men from hate speech but not black children*. ProPublica. Retrieved from <https://www.propublica.org/article/facebook-hate-speech-censorship-internal-documents-algorithms>
- Balkin, J. M. (2015). Information fiduciaries and the First Amendment. *UC Davis Law Review*, 49(4), 1183–1234.
- Ball, D. (2012). Cutting out the middle man?: Disintermediation and the academic library. *LINK: Connecting Commonwealth librarians*, 14, 2–3.
- Bantam Books Inc. v. Sullivan, 372 U.S. 58. (1963). Retrieved from <https://supreme.justia.com/cases/federal/us/372/58/>
- Bartha, P. (2022). Analogy and analogical reasoning. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Retrieved from <https://plato.stanford.edu/entries/reasoning-analogy/> (Original work published 2013)
- Bell, E. (2016, March 7). Facebook is eating the world. *Columbia Journalism Review*. Retrieved from https://www.cjr.org/analysis/facebook_and_media.php
- Bell, E., & Owen, T. (2017). *The platform press: How Silicon Valley reengineered journalism*. Tow Center for Digital Journalism. Retrieved from https://www.cjr.org/tow_center_reports/platform-press-how-silicon-valley-reengineered-journalism.php
- Bird, S. E. (1992). *For enquiring minds: A cultural study of supermarket tabloids*. Knoxville: University of Tennessee Press.
- Blank, C. (1998, July 27). *Chains casting a wary eye on tabloids*. Supermarket News. Retrieved from <https://www.supermarketnews.com/archive/chains-casting-wary-eye-tabloids>

- Bogust, I. (2016, August 3). Facebook is not a technology company. *The Atlantic*. Retrieved from <http://www.theatlantic.com/technology/archive/2016/08/facebook-is-not-a-technology-company/494183/>
- Bogost, I. (2022, November 10). The age of social media is ending. *The Atlantic*. Retrieved from <https://www.theatlantic.com/technology/archive/2022/11/twitter-facebook-social-media-decline/672074/>
- Buni, C., & Chemaly, S. (2016). *The secret rules of the Internet*. The Verge. Retrieved from <https://www.theverge.com/2016/4/13/11387934/internet-moderator-history-youtube-facebook-reddit-censorship-free-speech>
- Caplan, R. (2016, May 17). Like it or not, Facebook is now a media company. *The New York Times*. Retrieved from <http://www.nytimes.com/roomfordebate/2016/05/17/is-facebook-saving-journalism-or-ruining-it/like-it-or-not-facebook-is-now-a-media-company>
- Chilton, C. (2020, November 4). How grocery stores have changed over the years. *Good Housekeeping*. Retrieved from <https://www.goodhousekeeping.com/life/entertainment/g32388143/grocery-stores-history/?slide=16>
- DeNardis, L., & Hackl, A. M. (2015). Internet governance by social media platforms. *Telecommunications Policy*, 39(9), 761–770. doi:10.1016/j.telpol.2015.04.003
- Donovan, J., & Nilsen, J. (2021, July 15). *Facebook, Twitter and other social media companies need to be treated like Big Tobacco*. NBC News. Retrieved from <https://www.nbcnews.com/think/opinion/facebook-twitter-other-social-media-companies-need-be-treated-big-ncna1274000>
- Fisher, M. (2018, December 27). Inside Facebook's secret rulebook for global political speech. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/12/27/world/facebook-moderators.html>
- Gentner, D., & Gentner, D. R. (1983). Flowing waters or teeming crowds: Mental models of electricity. In D. Gentner & A. L. Stevens (Eds.), *Mental models* (pp. 99–129). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gillespie, T. (2010). The politics of "platforms." *New Media & Society*, 12(3), 347–364. doi:10.1177/1461444809342738
- Gillespie, T. (2018). *Custodians of the Internet: Platforms, content moderation, and the hidden decisions that shape social media*. New Haven, CT: Yale University Press.

- Gillespie, T. (2022). Do not recommend? Reduction as a form of content moderation. *Social Media & Society*, 8(3), 1–13. doi:10.1177/20563051221117552
- Hamilton, I. A. (2021, February 3). *Jeff Bezos is stepping down as Amazon's CEO*. Insider. Retrieved from <https://www.businessinsider.com/1997-jeff-bezos-amazon-empire-viral-video-books-2019-11>
- Harris, E. A. (2022, April 15). How Barnes & Noble went from villain to hero. *The New York Times*. Retrieved from <https://www.nytimes.com/2022/04/15/arts/barnes-noble-bookstores.html>
- Harris, E. A., & Alter, A. (2022, April 4). Book banning efforts surged in 2021. These titles were the most targeted. *The New York Times*. Retrieved from <https://www.nytimes.com/2022/04/04/books/banned-books-libraries.html>
- Heath, A. (2016, March 15). *Instagram is about to go through its most radical change ever*. Business Insider. Retrieved from <https://www.businessinsider.com/instagram-to-introduce-algorithmic-timeline-2016-3>
- Ingram, M. (2012, May 16). *Facebook's biggest problem is that it's a media company*. Gigaom. Retrieved from <https://gigaom.com/2012/05/16/facebooks-biggest-problem-is-that-its-a-media-company/>
- Kempton, W. (1987). Two theories of home heat control. In D. Holland & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 222–242). Cambridge, UK: Cambridge University Press.
- Kennedy, R. (2005, June 5). Cash up front. *The New York Times*. Retrieved from <https://www.nytimes.com/2005/06/05/books/review/cash-up-front.html>
- Kirkpatrick, D. (2011). *The Facebook effect: The inside story of the company that is connecting the world*. New York, NY: Simon & Schuster.
- Kleinfield, N. R. (1979, April 4). Magazines battling for checkout racks. *The New York Times*. Retrieved from <https://www.nytimes.com/1979/04/04/archives/magazines-battling-for-checkout-racks-magazines-battle-for-rack.html>
- Klonick, K. (2018). The new governors: The people, rules, and processes governing online speech. *Harvard Law Review*, 131(6), 1598–1670. Retrieved from <http://www.jstor.org/stable/44865879>
- Klonick, K. (2021, February 12). Inside the making of Facebook's Supreme Court. *The New Yorker*. Retrieved from <https://www.newyorker.com/tech/annals-of-technology/inside-the-making-of-facebooks-supreme-court>
- Klonick, K. (2023, March 3). *The end of the golden age of tech accountability*. The Klonickles. Retrieved from <https://klonick.substack.com/p/the-end-of-the-golden-age-of-tech>
- Knudson, M. G. (1997, September 3). Stores ban tabloids with photos of crash. *Deseret News*. Retrieved from <https://www.deseret.com/1997/9/3/19332031/stores-ban-tabloids-with-photos-of-crash>

- Kreiss, D. (2020). *Media and social media platforms finally begin to embrace their roles as democratic gatekeepers*. Election Analysis. Retrieved from <https://www.electionanalysis.ws/us/president2020/section-5-social-media/media-and-social-media-platforms-finally-begin-to-embrace-their-roles-as-democratic-gatekeepers/>
- Kreiss, D., & McGregor, S. (2018). Technology firms shape political communication. *Political Communication*, 35(2), 155–177. doi:10.1080/10584609.2017.1364814
- Kurtz, S. (2022, February 24). The battle for the soul of the library. *The New York Times*. Retrieved from <https://www.nytimes.com/2022/02/24/opinion/battle-library-neutrality.html>
- Liebeskind, S. (2023, May 1). *The summer of decentralized social*. New Public. Retrieved from <https://newpublic.substack.com/p/the-summer-of-decentralized-social>
- MacKinnon, R., Hickok, E., Bar, A., & Lim, H. (2014). *Fostering freedom online: The role of Internet intermediaries*. UNESCO. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000231162>
- Mak, A. (2018, January 12). Facebook announces major changes to the newsfeed to prioritize friends and family over professional content. *Slate*. Retrieved from <https://slate.com/technology/2018/01/facebooks-newsfeed-will-now-deemphasize-publishers-in-favor-of-friends-and-family.html>
- Markham, A. N. (2020). Ways of being in the digital age. In A. Markham & K. Tiidenberg (Eds.), *Metaphors of Internet: Ways of being in the age of ubiquity* (pp. 3–12). New York, NY: Peter Lang.
- Markham, A. N., & Tiidenberg, K. (2020). *Metaphors of Internet: Ways of being in the age of ubiquity*. New York, NY: Peter Lang.
- Meese, J., & Hurcombe, E. (2020). Facebook, news media and platform dependency: The institutional impacts of news distribution on social platforms. *New Media & Society*, 23(8), 2367–2384. doi:10.1177/1461444820926472
- Meta. (n.d.). *Promoting authoritative information about Covid-19*. Meta for Media. Retrieved from <https://www.facebook.com/formedia/promoting-authoritative-information-about-covid-19-vaccines>
- Meta. (2018, August 13). *Best practices for Facebook and Instagram*. Meta for Media. Retrieved from <https://www.facebook.com/formedia/blog/best-practices-for-facebook-and-instagram>
- Miller, L. J. (2008). *Reluctant capitalists: Bookselling and the culture of consumption*. Chicago, IL: University of Chicago Press.

- Morton, P. E. (2009). *Tabloid valley: Supermarket news and American culture*. Gainesville: University Press of Florida.
- Napoli, P. (2019). *Social media and the public interest: Media regulation in the disinformation age*. New York, NY: Columbia University Press.
- Napoli, P., & Caplan, R. (2017). Why media companies insist they're not media companies, why they're wrong, and why it matters. *First Monday*, 22(5). doi:10.5210/fm.v22i5.7051
- Nechushtai, E. (2018). Could digital platforms capture the media through infrastructure? *Journalism*, 19(8), 1043–1058. doi:10.1177/1464884917725163
- Nieborg, D. B., & Poell, T. (2018). The platformization of cultural production: Theorizing the contingent cultural commodity. *New Media & Society*, 20(11), 4275–4292. doi:10.1177/1461444818769694
- Nielsen, R. K., & Ganter, S. A. (2017). Dealing with digital intermediaries: A case study of the relations between publishers and platforms. *New Media & Society*, 20(4), 1600–1617. doi:10.1177/146144481770131
- O'Meara, V. (2019). Weapons of the chic: Instagram influencer engagement pods as resistance to Instagram platform labor. *Social Media & Society*, 5(4), 1–11. doi:10.1177/2056305119879671
- Papa, V., & Kouros, T. (2023). Do Facebook and Google care about journalism? Mapping the relationship between affordances of GNI and FJP tools and journalistic norms. *Digital Journalism*, 11(8), 1475–1498. doi:10.1080/21670811.2023.2211626
- Pariser, E. (2020, October 13). To mend a broken internet, create online parks. *WIRED*. Retrieved from <https://www.wired.com/story/to-mend-a-broken-internet-create-online-parks/>
- Peterson, I. (1996, September 9). Supermarket tabloids lose circulation, even as they divulge major scandals. *The New York Times*. Retrieved from <https://www.nytimes.com/1996/09/09/business/supermarket-tabloids-lose-circulation-even-as-they-divulge-major-scandals.html>
- Petre, C., Duffy, B. E., & Hund, E. (2019). "Gaming the system": Platform paternalism and the politics of algorithmic visibility. *Social Media & Society*, 5(4), 1–12. doi:10.1177/2056305119879995
- Pew Research Center. (2013). *How Americans value public libraries in their communities*. Retrieved from <https://www.pewresearch.org/internet/2013/12/11/section-3-perceptions-of-public-libraries/>
- Plantin, J.-C., Lagoze, C., Edwards, P. N., & Sandvig, C. (2016). Infrastructure studies meets platform studies in the age of Google and Facebook. *New Media & Society*, 20(1), 293–310. doi:10.1177/14614448166615

- Powell, W. (1983). Whither the local bookstore? *Daedalus*, 112(1), 51–64.
- Pundsack, K. (2015, March 2). *Customers or patrons? How you look at your library's users affects customer service*. Public Libraries Online. Retrieved from <http://publiclibrariesonline.org/2015/03/customers-or-patrons-how-you-look-at-your-librarys-users-affects-customer-service/>
- Puschmann, C., & Burgess, J. (2014). Metaphors of big data. *International Journal of Communication*, 8, 1690–1709.
- Raffaelli, R. (2020). *Reinventing retail: The novel resurgence of independent bookstores*. Harvard Business School Working Papers. Retrieved from https://www.hbs.edu/ris/Publication%20Files/20-068_c19963e7-506c-479a-beb4-bb339cd293ee.pdf
- Richardson, J. V. (2010). History of American library science: Its origins and early development. In M. J. Bates & M. N. Maack (Eds.), *Encyclopedia of library and information sciences* (4th ed., pp. 2909–2917). Boca Raton, FL: CRC Press.
- Roberts, S. T. (2019). *Behind the screen: Content moderation in the shadows of social media*. New Haven, CT: Yale University Press.
- Roose, K. (2022, October 5). Elon Musk's Twitter will be a wild ride. *The New York Times*. Retrieved from <https://www.nytimes.com/2022/10/05/technology/elon-musk-twitter-predictions.html>
- Rosen, J. (2022, April 19). The changing world of bookselling. *Publishers Weekly*. Retrieved from <https://www.publishersweekly.com/pw/by-topic/industry-news/bookselling/article/89023-the-changing-world-of-bookselling.html>
- Schwarz-Plaschg, C. (2018). The power of analogies for imagining and governing emerging technologies. *Nanoethics*, 12, 139–153. doi:10.1007/s11569-018-0315-z
- Scott, M., & Isaac, M. (2016, September 9). Facebook restores iconic Vietnam war photo it censored for nudity. *The New York Times*. Retrieved from <https://www.nytimes.com/2016/09/10/technology/facebook-vietnam-war-photo-nudity.html#:~:text=But%20for%20Facebook%2C%20the%20image,how%20Facebook%20was%20censoring%20images>
- Síthigh, D. M. (2020). The road to responsibilities: New attitudes towards Internet intermediaries. *Information & Communications Technology Law*, 29(1), 1–21. doi:10.1080/13600834.2020.1677369

- Srinivasan, H. (2023, February 27). *How your grocery store's layout is costing you money*. Real Simple. Retrieved from <https://www.realsimple.com/food-recipes/shopping-storing/food/grocery-store-layout#toc-shelf-layout>
- Thompson, L. (2000, January 12). Cosmo's racy headlines have grocery stores covering up Kroger markets to have "blindners" installed by Feb. 1. *Deseret News*. Retrieved from <https://www.deseret.com/2000/1/12/19485259/cosmo-s-racy-headlines-have-grocery-stores-covering-up-br-kroger-markets-to-have-blindners-installed>
- Turner, F. (2006). *From counterculture to cyberculture*. Chicago, IL: University of Chicago Press.
- Tveten, J. (2019). Daniel in the lion's den: Platform workers take on tech giants in the workplace and the world. *New Labor Forum*, 28(1), 60–65. doi:10.1177/1095796018817020
- United Press International. (1997, September 3). *Food chains, others pull tabloids*. Retrieved from <https://www.upi.com/Archives/1997/09/03/UPI-Focus-Food-chains-others-pull-tabloids/7561873259200/>
- Vitak, J., Liao, Y., Kumar, P., & Subramaniam, M. (2018). Librarians as information intermediaries: Navigating tensions between being helpful and being liable. In G. Chowdhury, J. McLeod, V. Gillet, & P. Willett (Eds.), *Transforming digital worlds. iConference 2018. Lecture notes in computer science* (Vol. 10766, pp. 693–702). Heidelberg, Germany: Springer. doi:10.1007/978-3-319-78105-1_80
- Vnuk, R. (2015). *The weeding handbook: A shelf-by-shelf guide*. Chicago, IL: ALA Editions.
- Womack, R. (2002). Information intermediaries and optimal information distribution. *Library & Information Science Research*, 24(2), 129–155. doi:10.1016/S0740-8188(02)00109-3
- Wong, J. C., & Solon, O. (2018, April 24). Facebook releases content moderation guidelines—Rules long kept secret. *The Guardian*. Retrieved from <https://www.theguardian.com/technology/2018/apr/24/facebook-releases-content-moderation-guidelines-secret-rules>
- Young, M., Katell, M., & Krafft, P. M. (2022, June). Confronting power and corporate capture at the FAccT Conference. In *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency* (pp. 1375–1386). New York, NY: ACM. doi:10.1145/3531146.3533194
- Ziewitz, M. (2019). Rethinking gaming: The ethical work of optimization in web search engines. *Social Studies of Science*, 49(5), 707–731. doi:10.1177/0306312719865607