



How gatekeeping became digital: infrastructural barriers to participation in conventional and platformized cultural production

Michael L. Siciliano

To cite this article: Michael L. Siciliano (2022) How gatekeeping became digital: infrastructural barriers to participation in conventional and platformized cultural production, *International Journal of Cultural Policy*, 28:7, 888-904, DOI: [10.1080/10286632.2022.2137154](https://doi.org/10.1080/10286632.2022.2137154)

To link to this article: <https://doi.org/10.1080/10286632.2022.2137154>



Published online: 16 Nov 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)




View Crossmark data [↗](#)

ARTICLE



How gatekeeping became digital: infrastructural barriers to participation in conventional and platformized cultural production

Michael L. Siciliano 

Department of Communication, Tulane University, New Orleans, USA

ABSTRACT

Digital platforms supposedly allow global corporations to exert *novel* infrastructural power over cultural participation due to platforms' increased centrality as key gatekeepers. Extant theorizations of global capitalism, however, suggest infrastructural power as a longstanding feature of capitalism, especially in media industries. *How novel is the infrastructural power of platforms? How does platformization affect cultural participation?* Through an ethnographic comparison of conventional and platformized cultural intermediaries (respectively, a music distribution company in 2010 and a multi-channel YouTube network or MCN in 2015), I show continuity in infrastructural power alongside distinctive *differences* in logics of inclusion/exclusion – what I call hard and soft gates. Hard gates exclude while the soft gate simultaneously increases participation and heightens circulation inequality. These modes of infrastructural gatekeeping follow from the operations of each case's distribution technologies: automated warehousing and associated barcodes in the music case and algorithmic search and metrics in the YouTube case. Considered alongside recent research, my findings suggest that policy on participation must consider how value-laden infrastructures impact participation and visibility in digital culture. More broadly, my findings suggest that the transition to 'the digital' demonstrate continuity rather than a sharp 'disruption' by 'platform capitalism.'

ARTICLE HISTORY

Received 13 May 2022
Accepted 1 August 2022

KEYWORDS

Gatekeepers; social media; music industry; infrastructure; participation

Introduction

In Winter 2009, snow fell as I walked to work at an indie music distributor in the Midwestern United States. Entering the building, I heard my coworker, a recent immigrant from Eastern Europe, singing along to a song by experimental pop band The Residents: 'Boxes full of Armageddon! Boxes full of death.' Generally, he loved to listen to experimental music, avant-garde jazz, and indie rock's experimental fringe. The Art Ensemble of Chicago, Henry Flynt, God Speed You Black Emperor!, and US Maple were among his favorites. He kept singing as we packed up vinyl LPs and CDs into specially designed boxes used exclusively by a subsidiary of a global media conglomerate. We used *their* boxes and the conglomerate subsidiary made sure our indie music entered stores like BestBuy, Wal-Mart, and stores in shopping malls such as HotTopic. 'Do you know what those boxes are?' asked my coworker. 'Maybe some indie band's album? Or is it one of the free jazz records the boss just released?' I offered. 'No! Those are boxes full of Armageddon! Boxes full of death!'

Truth be told, the boxes' *contents* did not matter, so long as they arrived to the global company's warehouse in these specialized containers with their specialized barcodes on the boxes' exteriors –

not wholly dissimilar from the elaborate color-coded shipping crate system used in the fine art world (see Rubio 2020). Each item in the box required a barcode. Barcodes enable market-level data aggregation (Anand and Peterson 2000) as well as automated inventory tracking in the conglomerate's warehouse. The music's formal characteristics varied quite a bit, ranging from reissues of 1970s avant-garde jazz to 2000s lo-fi indie rock darlings who appeared in what were then the hippest music blogs. Crucially, *music* in the shipments remained unaffected by corporate infrastructure. Infrastructure required only a properly formatted exterior consisting of shipping box and barcodes.

Six years later in Los Angeles, I was working at a multi-channel YouTube network, an intermediary organization providing distribution and management services to digital content producers or 'creators.' We fretted over YouTube's algorithm rather than 'boxes full of Armageddon.' In doing so, we still focused on *form* rather than *content*, spending most of our time advising YouTube 'creators' on how best to format content to match infrastructure. Our conversations with creators tended to focus on how best to tailor content to meet YouTube's algorithms as we generated itemized reports detailing how well or how poorly content producers or 'creators' conformed to YouTube's latest advice on its algorithms. Notably, we rarely spoke of content's contents, only form and metadata. Content's contents were nearly irrelevant so long as creators conformed to the algorithms' demands. This similarity appears quite surprising vis-à-vis platforms' supposed 'disruption' of established gatekeeping practices and organizational forms. The more things change, the more they stay the same. Both infrastructures impacted participation in cultural markets, yet content that fails to conform to YouTube's algorithm may still be accessed, albeit with algorithmically diminished circulation. In contrast, music sans barcode could not circulate, at least not through the conglomerate's subsidiary.

This article contributes to recent discussions of digital technology's impact on access and participation (e.g. Casemajor, Bellavance, and Sirois 2021; Wright 2019) by illustrating how infrastructural gatekeeping structures intermediary organizations in a conventional mode of organizing cultural production (a music distributor in 2009) and 'platformized' cultural production (a YouTube MCN in 2015).¹ Research on gatekeeping and cultural production often focuses on taste and genre – two factors often correlated with cultural exclusion based on social identity (e.g. Kawashima 2006; see also Bourdieu 1993, 1984). Digital intermediaries such as platforms supposedly 'disrupt' conventional taste-based gatekeeping, thus 'enhancing' participation (Valtysson 2010).

In contrast, I argue that embedding cultural participation within digital infrastructures such as platforms produce and obscure circulation inequality while increasing participation. I make this argument through comparative ethnography of two intermediary organizations: an indie music distribution company in 2009 and a YouTube management network in 2015. In both sites, I find that, due to the political economy of distribution infrastructures, global corporations exert power over cultural producers. Both the conventional (music) and digital (YouTube) intermediaries aid conglomerate power by formatting cultural products for mass circulation. Thus, there is continuity between conventional and digital in terms of corporate infrastructures and circulation. However, infrastructures operate under *different* logics of exclusion which, in turn, mediates the impact of infrastructure upon *culture*.

Distribution, circulation, and other work performed by cultural intermediaries are among the central concerns when it comes to social science research on cultural production. Arguably, this begins with the early Frankfurt School (i.e. Horkheimer and Adorno 1947) and, later, more empirically driven research (e.g. Hesmondhalgh 2007; Peterson and Anand 2004) as well as theories of the 'network society' (Castells 2010), media flows (Appadurai 1996), performative infrastructures (Thrift 2005), and the 'blackbox society' (Pasquale 2015). Alongside distribution's centrality in media and culture research, infrastructure and distribution became major topics over the past decade (Hesmondhalgh 2021) in both internet and media studies. Nowhere is this more clear than in discussions of platforms where the tendency to overinflate the distinctiveness of 'platform capitalism' remains quite common such as in Srnicek's claims about platform capitalism's relative novelty (2016) and claims about the emergence of a 'platform society' as in Dijck, Poell, and de Waal (2018).

In this article, I employ ethnographic data to provide an empirical counterbalance to these assumptions.

Platforms are often presented as novel in their exertion of power, in part, due to their formatting cultural objects at the level of code and engendering users' algorithmic orientations (Bucher 2012; Burgess and Green 2009). However, before the rise of digital platforms, numerous scholars demonstrated how power operates at the level of logistics and distribution infrastructure under 'networked,' 'informational,' 'supply-chain,' or 'cognitive' capitalisms (see, Acland et al. 2015; Appadurai 1996; Castells 2010; Hockenberry, Zieger, and Starosielski 2021; Tsing 2009). Thus, I find much continuity between contemporary 'platform capitalism' (Srniczek 2016) and yesteryear's 'supply-chain' capitalism (Tsing 2009). In both, global firms regulate operations of downstream suppliers in complex networks of organizations and infrastructure. Through a comparison of conventional and platformized cultural intermediaries, I show how, in both cases, global corporations' distribution infrastructures continue to exert power over downstream actors.

Alongside this similarity, each case demonstrates a distinctive logic of exclusion/inclusion linked to each case's political economy of infrastructure. In both cases, cultural products appear legible within distributional infrastructures when properly formatted, freely circulating as potentially valuable cultural commodities. When improperly formatted, cultural products appear illegible, resulting in complete exclusion or diminished inclusion – what I respectively call hard and soft gates. Hard gates *exclude* commodities from circulation, denying their potential value. Soft gates, as in the case of platformized cultural production, *include* with diminished visibility, allowing partial participation alongside circulation inequality. While hard gates appear common among conventional intermediary organizations, soft gates may vary by individual platforms' inclusion/exclusion criteria, providing ample room for further research.

How gatekeepers became digital

Media's gatekeepers or intermediary organizations (e.g. radio stations, record labels, film distributors, and talent agents) bridge production and consumption, turning 'unique and contingent cultural use-values into products which can be exchanged on the market' (Miège 1989, 29). In media sociology, this goes back to Adorno's fears of a monolithic 'culture industry' that supposedly focused on 'distribution and mechanical reproduction' at the expense of aesthetic concerns (Adorno 1991, 101) on up through the 1970s when Paul Hirsch (1972) highlighted the importance of 'surrogate consumers' in the 'production of culture' tradition (Peterson and Anand 2004) and more contemporary research on cultural intermediaries (see, e.g. Maguire and Matthews 2010; Negus 2002; Nixon and Du Gay 2002).

As noted by Hirsch (1972), conventional intermediaries mediate consumption and production as gatekeepers, winnowing aspiring cultural producers and products. Concurrently, intermediaries 'format' cultural products to fit market categories or genres (Hesmondhalgh 2007). These two processes, are, of course, interrelated. For example, talent agents attempt to fit actors within types legible to casting directors (Roussel 2017) just as modeling agents attempt to shape models into particular established 'looks' (Mears 2011). Music intermediaries such as record labels and radio stations attempt to fit musicians within established genres and 'authentic' styles (Holt 2007; Peterson 1997; Rossman 2012) just as book publishers establish comparisons in relation to past successes within clearly defined genres (Childress 2017). In each, products come to be circulable and valued by fitting within established cognitive or market categories, most often genre and intermediaries' taste.

As cultural production becomes increasingly embedded within the digital distribution infrastructures that we more commonly call 'platforms,' social scientists now focus on how digital platforms function as intermediaries between production and consumption. Per Srniczek's *Platform Capitalism* (2016), platforms function as intermediaries between two or more actors, enabling those actors to coordinate production or the rendering of services. As Langley and Leyshon note, platforms'

distinctiveness as media intermediaries stem from platforms' attempts both to "make 'connections' of multi-sided markets and to coordinate the network effects of 'connectivity'" (2017, 3) thus overdetermining the boundary conditions for popular culture and the constitution of publics (Braun 2015).

Focusing on affordances and constraints leads scholars to emphasize relationships between cultural products and platforms' infrastructural elements (e.g. algorithms, metrics, interfaces, and data) rather than on genre and intermediaries' taste preferences. For example, Bucher (2012) argues that Facebook's users develop a participatory subjectivity in relation to infrastructures' algorithms. This, Bucher claims, demonstrates how 'algorithmic architectures dynamically constitute certain forms of social practice' (2012, 1165) as Facebook users develop practices by which they hope to become visible to both peer-users and broader audiences. Insofar as platforms' algorithms help determine public visibility, users' practices of self-expression develop in ways that mirror the platforms' algorithms. Similarly, Ananny (2016) shows how algorithms 1) bring users together as a collectivity oriented around similar information, 2) limit users' options for action to that which can be detected by a platform's algorithm, and 3) structure the rhythms by which users expect to consume as in the ebb and flow of 'trending' videos, topics, and other information on platforms such as Twitter, Facebook, and YouTube.

Consequently, Caplan and Boyd (2018) argue that platforms may lead to homogeneity in cultural products as workers meet demands set forth by these infrastructures – what Nieborg and Poell (2018) call the 'contingency' of culture upon platforms. Nieborg and Poell speculate that as cultural production becomes fully platformized, cultural producers develop practices of production more fully aimed at producing modular cultural products intended to be rearrangeable and modifiable dependent upon changes in platforms' infrastructural elements. Anecdotal evidence presented by Morris (2020) supports this argument as a few 'extreme' cases highlight how musicians tailor songs for Spotify's algorithms, optimizing their 'content' to meet to be better legible to infrastructure. These practices included creating 'fake' songs that sound similar to popular songs and by 'gaming' titles, images, and other metadata to better suit the platform's algorithm. These findings dovetail with research on digital labor platforms in which platforms exert less control on production while retaining disproportionate power over distribution (see Vallas and Schor 2020). As in other contexts, platforms govern media distribution by exerting less control while imposing tighter constraints.

Considered together, research on conventional intermediaries and digital platforms suggests a sharp break in logics underlying media distribution, *however*, extant theories of contemporary capitalism call into question the supposed digital 'disruption.' Theories developed prior to the rise of platforms such as 'networked' (Castells 2010 [1996]), 'supply-chain' (Tsing 2009), or 'cognitive' (Boutang 2011) capitalism as well as theories of the 'control society' (Deleuze 1992) and global 'flows' (Appadurai 1996) suggest that power operates at the level of logistics and distribution infrastructure. Likewise, media scholars now forcefully argue for logistics' long-standing importance in enforcing and propagating capitalist power since at least the beginning of the 20th century (Hockenberry, Zieger, and Starosielski 2021). These theories suggest that platforms' power, while distinctive, is not wholly novel.

If digital media platforms' infrastructural power is not new, then how are we to understand readily apparent differences in how digital and conventional infrastructures and intermediary organizations impact participation? Many possible answers exist, however, here I focus only on two claims. First, 'distribution infrastructure is a crucial battleground' in which 'competing visions of society are made manifest within seemingly technical struggles' (Sandvig 2015, 241). Second, per Langley and Leyshon (2017), platform intermediaries tend to standardize the 'circulations in which they specialize' by way of inclusion/exclusion criteria. How then do cultural intermediaries standardize participation through formatting media objects, how does this standardization exclude/include, and what visions compete in that process?

To address these questions, I draw from my fieldwork within two cultural intermediaries (a music distribution company from 2009–2010 and a multi-channel YouTube network in 2015). Research on

conventional intermediaries focus on gatekeeping based on genre expectations, taste, and other culturally embedded typologies. In contrast, platform research suggests inclusion/exclusion based on metadata and infrastructural criteria. Pressing these two hypotheses to my data, I find that both conventional and digital intermediaries depend upon proper formatting, not in terms of genre which requires legibility vis-à-vis cognitive and market categories, but in terms of infrastructure which demands technical legibility. Despite this continuity, there exists two crucial differences. First, the structure of infrastructural gatekeeping differs, demonstrating 1) the exclusionary hard gate of conventional intermediaries and 2) the inclusionary soft gate of digital platforms. Second, the exclusionary gate in the music case is both technically and symbolically important, suggesting an entangled relationship between infrastructure and resistance not found in the more inclusive, though no less pernicious, soft gate.

Persistence of participation barriers

Though varied in terms of empirical objects of study, cultural policy discussions of ‘participation’ and ‘access’ focus on audiences’ access, consumption patterns, and ‘engagement’ with public and private institutions (e.g. Jancovich 2017; Kawashima 2006; O’Hagan 2016; Stevenson, Balling, and Kann-Rasmussen 2017; West and Smith 2005). Consumer-centric discussions of participation may suit cultural policy’s general emphasis on state interventions vis-à-vis private and public cultural institutions or gatekeepers that regulate circulation and access, however, our decidedly digital present requires attention to production, as well. Digital infrastructures enable heightened participation through diminished barriers to access, participation, and circulation in terms of both consumption and production.

While conventional policy studies of participation focus on audiences and consumption, digital cultural participation generally refers to a ‘complexified’ entanglement of cultural *production* as well as consumption (Casemajor, Bellavance, and Sirois 2021). Production, in this context, ranges from the production of data in everyday communication (e.g. emails, and SMS) to more recognizably ‘cultural’ production such as dance routines on TikTok, vlogs on YouTube, memes on Instagram, and vitriolic political commentary on Twitter. Early scholars of Web 2.0 and social media platforms claimed that these digital infrastructures offered unfettered access, democratizing the production and consumption of culture (e.g. Jenkins 2006) and ‘enhancing’ participation (Valtysson 2010).

Current public debates regarding the regulation of social media platforms as well as recent scholarship (e.g. Siciliano 2021; Nieborg and Poell 2018; Bucher 2012; see also, e.g. Kelty 2020; Kelty et al. 2015) continually highlight the limits of these earlier theorizations, suggesting the need for theoretical work to better inform policy discussions of cultural access and participation. Rather than argue, naively, that platforms disrupt gatekeeping and thus ‘enhance’ participation, I show how a platform – digital gatekeeper – continues media corporations’ enforcement of barriers to full participation in cultural production.

Case selection and data collection

This study draws from two corpuses of qualitative data collected for two separate projects focused on valuation, intermediaries, and labor among indie record labels in the music industry (2009–12) and a YouTube multi-channel network (2015–2017). Following the extended case method (Burawoy 1998), I analyzed data in the first corpus in search of anomalous findings vis-a-vis extant research on conventional and digital intermediation and then endeavored to further extend my analysis to the second case. I coded all fieldnotes and interviews using both theory-derived and inductively generated codes using Atlas.Ti. Codes generated in the conventional case were extended to and modified to organize data from the platformized case. I then re-examined the conventional case using codes from the platformized case.

I began with music industry intermediary organizations due to their centrality in theories of cultural production, especially in my home discipline of sociology (e.g. Hirsch 1972; Peterson and Anand 2004). Social media platforms' prominence among digital cultural intermediaries makes for an ideal comparison. Here, I chose YouTube intermediaries as a second case because YouTube is one of the largest and longest-running digital media platforms that distributes user-generated content to over 1 billion global users. Data on indie record labels includes eight months of participant observation at the music distributor company that I call Midwest Records² where I worked in both the warehouse and front office and 16 semi-structured, in-depth interviews with owner-managers and staff members at indie record labels that ranged in length from 30–180 minutes. I also draw from descriptive quantitative analysis of 43 interviews with indie record label owner-managers conducted and published by the web magazine QRD (2008; 2010; 2011a; 2011b). QRD's questions closely resembled my interview guide, adding breadth to my data's depth.

Data on YouTube content production includes 10 months of participant observation inside a multi-channel YouTube network (MCN) that I call The Future along with 44 in-depth semi-structured interviews with managers, employees, and 'creators' within the network. As a hybrid 'social media intermediary' (Cunningham and Craig 2019), the MCN resembles several conventional intermediary types, occupying a space between talent management and distribution for over a thousand YouTube content creators.

I entered the MCN for 10 months as an unpaid intern in 2015, working alongside the company's talent management team before spending an additional six months interviewing creators across the U.S. for a total of 44 interviews. In-depth, semi-structured interviews ranged from 45–120 minutes in length. I interviewed both co-workers and creators managed by the firm. Creators tend to produce content in their homes and so I visited the home studios in the Midwest, Southwest, and West coast regions of the United States. I also conducted interviews by video call with creators located in the Northwestern and Eastern U.S. as well as Western Europe.

In addition to geographic diversity, I attempted to gain maximum variation among content creators along demographic variables (i.e. age, gender, race, and ethnicity), popularity, earnings, and genre. Genre plays a key role in structuring cultural production (Finnegan 1989; Holt 2007; Negus 1999) and so I sought out interviews from creators producing content that included vlogs (video blogs), videogame related content, animation, comedic content (short sketches, prank videos), news, flying drone footage, music videos, tutorials, stunts/martial arts videos, magic videos, experimental art videos, and promotional content paid for by various brands. Insofar as producers in each genre compete for similar resources (e.g. views and other metrics and awards devised by YouTube, brand sponsorships, etc.), they may be said to inhabit the same field (Bourdieu 1993, 1990).

In both cases, my social identity (white, cis-gendered, highly educated male) not doubt eased entry into fieldsites embedded within industries well-known for their overrepresentation of men due to persistent sexism (Duffy 2017; Hesmondhalgh and Baker 2015; Caldwell 2008; Siciliano 2021). My previous experience as a working musician provided initial contacts for entry in the music case while the digital media case proved more difficult to gain access and interviews, at least initially. This led me to take an unpaid internship at the MCN to gain access. I clearly stated my intention to use my experience as data for research upon being hired for the internship. Following Laura Grindstaff's strategy for gaining access to media workplaces (Grindstaff 2002), I slowly 'came out' as a researcher to coworkers as I came in contact with them during fieldwork.

The barcode's hard gate

Barcodes became centrally important in the music industry during the 1990s when Nielsen's SoundScan became a primary source of market information. This crucial piece of market surveillance technology had long been reviled among 'indie' or underground musicians and record labels, dating at least to the early 1980s when punk collage artist Winston Smith (1994) likened the barcode to

Albert Speers's 'Cathedral of Light'—a visual component of Nazi Party rallies in the lead-up to WWII – and to the Christian bible's 'mark of the beast.'

Midwest Records emerged from the 1980s post-punk milieu and so, even in 2009, discomfort around the use of barcodes hung alongside other ideal-typical indie practices. Ideal-typical indie practices included forgoing the use of contracts, forgoing the extraction of publishing revenues from musicians, and forgoing the use of industry standard '360' contracts which direct a portion of all of an artist's revenue streams back to the record label and so a label receives a percentage of CD/vinyl/MP3, concert ticket, and merchandise sales (Karubian 2008). In contrast, indies typically used 50/50 profit split agreements accompanied by a share of the initial press run of physical products (typically 10–20% of the initial pressing) while also tending to not lay claim to artists' publishing royalties³. Many companies also refused to incorporate barcodes directly into albums' printed artwork. As I said, this last practice has its roots in the 1980s underground – enshrined in the field's consecratory practices when important fanzines such as Chicago's *Punk Planet* and San Francisco's *MaximumRockNRoll* refused to review albums with barcodes (O'Connor 2008; Siciliano and O'Connor 2012).

Midwest Records held an exclusive contract with Contention and Esoteric Anarchist (EA) for pressing and distribution ('P and D'). These two high-status labels are known worldwide for their owners' espousal of Leftist politics and the supposed enactment of said politics in the above-described ideal-typical indie practices (see Hesmondhalgh 1999; Lee 1995). GothJamz, another label distributed by Midwest, also refused to incorporate barcodes within printed album artwork. For EA and Contention, this practice represented a commitment to anti-capitalist politics, but for GothJamz, the refusal was largely aesthetic. Both justifications represent attempts to reinforce a boundary between art and commerce at the level of materiality.

Faux-Indie⁴ (FI), a conglomerate subsidiary acts as a further intermediary between Midwest's labels and larger retail networks beyond the stores to which Midwest sells. This alliance allows the products of Midwest's top-selling, often high-status labels such as EA and Contention to circulate in larger retailers such as Best Buy, Target, Amazon, and stores in shopping malls such as HotTopic. Despite this benefit, the alliance provoked unease as it conflicted with the companies' status claims as staunchly 'indie.' As Zach, Midwest's owner-manager said,

No one wants to work with a major label in our little world. There are plenty of other independent distributors and labels that'll be happy to fucking go gangbusters with Faux-Indie or whoever. It's always been a thorn in our side. [It's] a kind of necessary evil.

It is *necessary* because the relationship allows Midwest's labels to circulate in markets beyond Midwest's reach, but the relationship is an *evil* because it undermines the company's status claims as a staunchly 'indie' company, provoking some backlash from fans. As Zach explained,

I used to do all the emails for our web questions. Ones that always came to me was 'Why has [that band] on Contention sold out?' [I thought] Oh god. [They'd ask] 'Why is [the anarchist band] at Hot Topic? That's such bullshit! I heard that they're owned by major label now.' And then having to explain [to fans] 'No, okay let's talk about this'.

A similar event involving the chain store Hot Topic illustrates how the association with Faux-Indie affected Midwest's relationship with retailers. As Jonah, another member of Midwest's core office staff said,

Faux Indie's sales rep [talked] to the Hot Topic buyer to try to get him to buy more of the stuff. [Hot Topic's buyer] just brushed him and was like 'screw you. I'm never going to buy that from you. I'm never going to buy that CD from you'. Contention calls and he's going to buy it from them. [Hot Topic] guy didn't give any explanation, but y'know, you can read between the lines and see there. I can only imagine whoever was contacting him trying to get him to buy the CD has never heard this, doesn't know anything about it and *this is music*. [Hot Topic's] buyer is a big fan of Contention stuff, and I don't blame him. When I was a buyer, the same thoughts went through my head. I specifically said "Fuck Faux-Indie. I'm not buying Contention from Faux-Indie.

Devaluing their perceived authenticity among fans, this alliance decreased Midwest's ability to realize products' potential value. As Midwest's owner said, '... it's not fun dealing with another pipeline that then goes through a major label.'

Funneling a product through FI resulted in misrecognition or illegibility both at the level of sales and at the level of internal communication. Jonah's statement regarding the Hot Topic buyer and his own actions as a former customer of Faux-Indie suggest that an indie product, to some degree, must appear to come from an indie organization in order to be recognized as valuable. Ironically, the alliance with Faux-Indie allowed Midwest and its labels to, as Jonah explained to me, 'exist outside of [their] own channels,' but Midwest's products' value diminished when this organizational alliance became known.

A similar issue arose when Midwest handled the re-issue of a hallmark album by one of Contention's biggest selling artists. Jonah and I talked about it after work one day after work at the dive bar around the corner from Midwest's offices. I asked him why he had been so stressed out all day since meeting Faux-Indie's representatives. He said they requested a new sell sheet for an artist, a relatively minor task, but what frustrated him had been Faux-Indie's inability to recognize the artist's value. As he said,

Like, dude, you need me to make a sell sheet for music that's not only been around for 30 years, but some of the most influential and important and life-changing music that's come out of America?! Like, really?! [They] should be embarrassed that [they're] asking me for this! No offense, but come on! It's their job to know this stuff! It's not like they're some obscure thing that they can't find out about. To go 'We want you to present us with bullet-points on why your biggest selling band for the past 30 years is important' which is like 'go to the fucking Wikipedia page man!' Like, can't you just do that? Why do we have to make a formal bullet-point list of why our biggest selling band for over 3 decades is important.

Jonah's account suggests the importance of formatting (Callon 1998) when it comes to making cultural products legible and thus valuable. Making Midwest's products legible to Faux-Indie required several market devices or 'material and discursive assemblages that intervene in the construction' and function of markets (Muniesa, Millo, and Callon 2007, 2). First, Faux-Indie required a bullet-pointed sell sheet due to bureaucratic procedure just as much as what Jonah perceived as ignorance. Whereas in the indie world, Midwest's products were legible and valuable, so long as they sold them directly to stores, these same products lost their value when traveling through Faux-Indie.

This illegibility also occurred at the level of infrastructure, highlighting the barcode as a second requisite market device. As noted above, Faux-Indie imposed rigid rules when facilitating circulation (i.e. the mandatory use of special boxes as well as barcodes). Faux-Indie's insistence on using both acts as a barrier to entry into global music markets for companies refusing to use barcodes and the SoundScan sales chart, a crucial source of music industry market information (Anand and Peterson 2000; Napoli 2003). As mentioned above, barcodes were seen as too 'business' or 'corporate' by Midwest's label roster. In dismissing barcodes, they endeavored to distinguish indie records symbolically and materially from 'mainstream' counterparts, a choice that determines where a product may appear and be valued.

To be clear, not all indies avoid barcodes and this practice had been in decline during fieldwork. By 2009, most indies had either opted to use comparatively smaller barcodes within albums' artwork or by affixing the barcode as a sticker to albums' shrink-wrap. Both were done as compromises to facilitate circulation within global markets. Contention and EA attach barcodes to their products via stickers on the shrink-wrap of their products rather than incorporating UPCs into an album's artwork. Quite a bit of my work at Midwest revolved around maintaining inventory of the specialized barcode stickers required to ensure circulability. For example, a co-worker and I spent a week digging through dusty boxes in Midwest's warehouse to make an accurate inventory of the thousands of barcode stickers used on vinyl records and CDs.

Properly formatted with barcodes on the exterior shrink-wrap and packed in the subsidiary's special boxes, Midwest's products could be shipped to Faux-Indie's automated warehouse. From

Faux-Indie's automated warehouse, the records and CDs were shipped to stores where upon sale the products move across a barcode scanner and the Nielsen SoundScan reporting service documents this sale. SoundScan notes the sale and the consumer returns home, hopefully enjoying their purchase. When the consumer removes the shrink-wrap, the commodity sheds its skin and, through some form of transubstantiation, the mass-manufactured compact disc becomes 'art.'

Frequently, these commodities fail to realize their potential value. When this occurs, these poor fragile pieces of art, so well concealed within their commodity shell, return to Faux-Indie's automated warehouse. As Jonah explained,

At our larger distributor where they receive tens of thousands of returns every month, we found that they would get the CD in a return and then it would go in the pile to be refurbished. So, they would remove the shrink-wrap. With a normal compact disc, you remove the shrink-wrap and then you just shrink-wrap it back up. Then it's all good to go. With ours when you remove the shrink-wrap the barcode comes off and then for them it no longer is something that exists or could be used or tracked. So, we had just a horrendous amount of materials destroyed because they would get the CD, they would remove the plastic and they would go 'This is garbage! We removed the plastic and threw it [away]'.
 Here, Jonah describes part of the process by which a music distributor, large or small, handles returned products. Upon return, all marks of having been 'on-sale' such as price tags or anti-theft devices are removed along with the shrink-wrap to erase the commodity's history. CDs that bear this mark permanently, incorporated into their graphic design, experience a smooth flow through this machinery.

As the CD travels to and from the market, the barcode allows the CD to flow smoothly through the larger apparatus of multinational corporate music production and distribution. CDs go to market and are sold or returned to Faux-Indie without incident. If returned, the CD is refurbished. Reborn and properly formatted for re-circulation, the cultural commodity may return to the marketplace. When this transubstantiation from commodity to art is performed mechanically, the CD, turned 'art' object, is quite literally illegible and thus without value within Faux-Indie's system – highlighting the importance of barcodes as market devices (Muniesa, Millo, and Callon 2007) that provide required framing or format for valuation (Callon 1998). Illegible, the former commodity, now 'art' object, does not flow back to the market. The process of decommunitization occurs, but the compact disc becomes garbage rather than 'art.'

As discourse made plastic, the destroyed compact discs represented the rejection of the vision of cultural production or values the objects embodied. This rejection and the accompanying destruction represented, to Midwest's staff, everything awful about the music industry's dominant organizations. As Jonah said, '... it's just a bummer. In the end the answer [from CMG/FI] was "this is how we do things. It's not viable for us to change our process. It would cost too much money to change anything so we're going to continue to destroy [these CDs]".' He continued on and said that he felt as if they were saying "Sorry, we know you guys think that you're being, basically they were politely saying, 'we understand your artistic idea here with not having a barcode, but sorry, that just doesn't fit into our world. We're not going to [bother to do anything about it]". Elaborating further, he stated quite clearly how he felt about the situation:

I mean, that's the consequences of wanting to exist separate, slightly separate. You can exist in your own world and create your own music and art and sell it and just exist in your own channels without compromising, but when you start to get up to that higher levels of trying to get into a larger distribution network. [When you do that] you stick to your guns and y'know, there are consequences.

After nearly a year, the issue remained unresolved. In 2010, when I concluded fieldwork, Midwest planned to leave Faux-Indie as their contract was about to expire, but their only other options were to sign on with another conglomerate subsidiary and face similar problems.

This problem of barcodes, ultimately, was a problem of valuation, yet, resolving the problem only required adjustments to containers that enabled circulation, not the form or content of artists' music.

This problem of barcodes, ultimately, was a problem of valuation, yet, resolving the problem only required adjustments to containers that enabled circulation, not the form or content of artists' music.

Changes to the container, in particular the barcode, need not affect the music, however, the indies' barcode practices were understood as coterminous with authenticity, a professed valuing of art over economic concerns. Thus, Contention, EA, and others in Midwest's roster refused to change due to barcodes' symbolic meaning. Borrowing from Sandvig (2015), Midwest distributed products that performed a vision of society which includes an imagined opposition to, depending on who you ask, 'capitalist hegemony' or 'aesthetically distasteful' practices of global multinationals. Sadly ironic, the indie companies brought about their own exclusion as the infrastructure owned and operated by a multinational corporation systematically destroyed Midwest's illegible products.

Here, Faux-Indie acts as cultural gatekeeper not in terms of decisions made by 'surrogate consumers' regarding taste and genre, but in terms of performative infrastructure's embedded values (Thrift 2005). The multinational's infrastructure required a particular standardization using a market device (i.e. the barcode; see Muniesa, Millo, and Callon 2007) in order for indie products to be legible, circulable, and thus, (potentially) valuable. Barcodes, as market devices required by the global firm, make products legible and thus valuable within the global company's automated system. In doing so, these market devices perform an orderly, organized, locatable vision of society to the exclusion of indie companies' barcode-less products. Legibility vis-à-vis corporate infrastructure directly impacts participation in cultural production.

The algorithm's soft gate

Compared to Midwest Records, the world of YouTube that I entered six years later at the company I call The Future appeared much more heteronomous or oriented toward market considerations (Bourdieu 1993). My work team was told by management to sign content producers or 'creators' to management contracts based on three criteria: audience size (12,000 or more subscribers), language (English only), and authorship or creators' holding their videos' copyright. Of those criteria, management regularly encouraged us to focus primarily on audience size.

When speaking to creators managed by The Future, my co-workers unflinchingly encouraged creators to tailor content for distribution infrastructures. We pushed creators to pursue 'optimization' strategies rather than symbolic opposition. The company's head of content optimization explained her job to several of The Future's interns and me by saying, 'Basically, our job is to understand and keep one step ahead of the platforms where we distribute' which requires an 'eye for detail and noticing changes. You should be reading up on [trade news website] *TubeFilter* and other websites, but you also have to notice changes in the interface which is really important.'

Rather than maligning these infrastructures as 'boxes full of Armageddon,' she said, 'Yes, I have a favorite metric. That's how nerdy we are in optimization' – a statement reinforcing findings elsewhere as to the affective attachments between data and workers in the digital economy (Cetina and Bruegger 2000; Christin 2020; Siciliano 2016, 2021). Demonstrating how the company uses YouTube's data dashboard to infer how other social media posts (e.g. Instagram, Twitter, Facebook, etc.) drive audiences to YouTube, she said that 'the skillset demanded of creators is so big and so, we're here to help them out.' She then explained The Future's optimization checklist, an internal document with which I was already familiar as I had been assisting her team and the talent acquisition team for several months.

The Future used optimization checklists to format content (Callon 1998; see also, Burgess and Green 2009; Siciliano 2021), encouraging formal uniformity and algorithmic isomorphism (Caplan and Boyd 2018). The checklist encourages creators to adjust formal elements of their content and accompanying paratexts (e.g. descriptions, metadata, etc.)—what Karpik (2010) calls judgment devices. The checklist is based on YouTube's certification program in 'audience growth.' Many of my co-workers, other employees at The Future, and myself all earned YouTube certification. Certification required viewing hours of training videos followed by a lengthy test on metric interpretation and best practices. The checklist measures creators' channels against these best practices with advice on how to 'optimize' the channel to meet the platform's algorithmic requirements.

The checklist serves as one of many vectors for generating an algorithmic orientation among creators (Siciliano 2021; see also, Sharone 2017; Bucher 2012). As the checklist begins,

YouTube's algorithm stresses two important factors: session time and audience engagement. Session time indicates the amount of time a viewer stays on your channel and watches your content. In addition to creating quality content, using annotations and end slates, creating playlists, and having an organized channel are all major factors in increasing session time.

Notably, this overview foregrounds algorithmically valuable metrics. Rather than providing advice on 'creating *quality* content,' the overview emphasizes judgment devices and channels' overall organization. Optimizing playlists, annotations, and end slates – components of what The Future called 'flow architecture' – were intended to increase viewers' engagement with a channel, specifically aggregate viewing of one channel's videos ('watch time'). Optimizing 'flow architecture' supposedly made content more 'surfaceable' or visible to YouTube's search algorithm.

When writing optimization reports, we rated channels on seventeen factors. These factors included the aforementioned 'flow architecture' along with metadata (Titles/Thumbnails, Video descriptions, Tags, Captions and Subtitles, Credits,), the channel's overall design (banner image, avatar, trailer, and description), and release schedule. For each item, we assigned ratings ('excellent,' 'needs work,' or 'poor') along with boilerplate advice on improving implementation, if necessary.

This emphasis on logistics echoes formatting requirements found in the previous case, while differing insofar as optimization directly affects content's *form*. Many key optimizations affect video's formal structure, making disparate genres formally similar. For example, implementing 'end slates' requires insertion of a short chunk of video displaying links to other videos on the same YouTube channel as well as additional dialogue in the video. End slates are similar to the 'Up next' screen that appears at the end of videos on subscription streaming platforms such as Netflix and Hulu, a practice intended to nudge users toward binge watching. Creators may insert end slates of their own design or use YouTube's 'Creator Studio' interface to semi-automate the process, which, of course, eases implementation. Effective implementation of end slates required further adjustments to content beyond the slate screens themselves. According to The Future's optimization reports, end slates worked best if creators also added a 'verbal call-to-action' or CTA which was 'most effective in getting people to click the annotations.' In other words, the ubiquitous 'Don't forget to click subscribe' stems directly from optimization instructions from the platform and intermediaries such as The Future rather than 'naturally' emerging from creators.

Regular release schedules also tended to stem from the platforms' advice, further illustrating attempts to 'standardize the circulations in which they specialize' (Langley and Leyshon 2017, 18) alongside the 'super-exploitation' typical of 'supply chain' or 'cognitive' capitalisms wherein positive expression of selfhood facilitates exploitation (Boutang 2011; Tsing 2009). Connie, a non-binary Black content creator whose content focuses on their intersectional identity, explained how The Future focused its efforts solely on optimization tips. As Connie said,

They're not in the creative process at all. All they do is offer tips. They're not going to say 'Connie, you need to post these certain days.' They'll say 'hey, we've seen that this works with other creators. Maybe you should set a certain day.' They'll give you tips, how to optimize your channel. How to drive people to certain things. How to catch peoples' eyes.

In standardizing content, The Future and YouTube focused almost exclusively on three things: formal concerns (e.g. backend formatting procedures), associated on-screen actions, and release schedules. Prior to content-focused concerns about 'misinformation' caused by the 2016 US election and the ongoing COVID19 pandemic, standardization generally focused on form while ignoring videos' content. My training through YouTube's audience growth certification program focused on formal procedures to increase algorithmic visibility and metrics – all which Connie mentions above.

Likewise, Wally, a younger member of The Future's optimization team said, 'Like, my co-worker asked me why a creator's new video didn't do that well even though all the optimization stuff had been done and I can't say why because *we don't pay attention to what the content is.*' Surprised by this

comment, I asked if they tested the effects of the optimization against different kinds of content and was told that they did not. As Wally elaborated, 'No, I mean, we don't have access to the algorithm, you know? And, a big part of it, the tagging and other optimization is making it recognizable to the algorithm, but we have no idea what that is.' As we stood outside of work, talking before we departed for the day, Laura, another employee said, 'Yeah, it's so weird, all these companies, like this one, we're all caught up in Google's systems, you know.' Wally continued on, 'Yeah, so we don't, we can't see anything. But, you know, if it's not recognizable to the algorithm, then the turd just drops to the bottom of the content trough.'

Again, illustrating infrastructural formatting as The Future's central concern, my supervisor asked me to check a moderately successful YouTube channel with just over 100,000 subscribers against our 'optimization' checklist. The channel's creators were complaining that The Future did too little to further their career and my supervisor wanted to see if the creators had implemented our recommended changes. From my supervisor's perspective, The Future had done more than enough by providing our optimization checklist, purportedly clarifying the blackboxed algorithm's desires – a top-down version of the bottom-up 'algorithmic lore' disseminated by individual content producers (see MacDonald 2021; Bishop 2020).

Optimization reports affected creators downstream. For example, Hank, a survivalist and conspiracy theorist vlogger, explained that he started making longer videos to meet the demands of the algorithm. As he said,

Right now, they [YouTube and The Future] want to do [emphasize] watch time, so I've got two 50-minute videos out there. One was just launched. The other one has been out for six months and it's doing really well, but because I keep a certain percentage of people watching all the way to the end, they favor that and maybe six months from now they decide that if people like the video we're going to – who knows what the next thing is.

A stay-at-home father who made content with his children explained how changes in formatting expectations affected his production practices, adding further uncertainty to cultural production's already endemic uncertainty (Bielby and Bielby 1994; Caves 2000). After years spent making videos tailored to one version of the algorithm, he said,

It's like, okay, great, now I have 800 videos based on this algorithm and you've changed it. So, I can start doing new videos based on this new way, but I've got all that anchor [the 800 older videos] pulling me down, which may not be to my benefit, the advantages I was targeting for those 800. So, sometimes – my brother suggested this too – it's better just to start a new channel because then you make a new channel for how the things are now and try to convince some of your people to come over. That is the hardest thing.

Improperly formatted content may result in decreased algorithmic visibility and diminished increased in correlated metrics such as viewers, watch-time, and subscribers. Again, infrastructure performs a particular vision of cultural production in which quantity, formal structure, and regularity supersede genre considerations and qualitative assessments.

YouTube's soft gate does not exclude, but diminishes visibility – quite similar to Facebook and Twitter (*cf.* Bucher 2012; Dijck 2013). Soft gates heighten participation yet simultaneously create and obscure circulation inequality. Recall, Midwest's labels were free to produce whatever music they wished so long as they used specialized boxes and used barcodes in standardized ways. Though similar, YouTube's soft gate differs in two important ways. First, platforms' soft gatekeeping *retains* while minimizing visibility, *tending not to exclude*. Second, infrastructure directly impacts aesthetics and content as seen in common on-screen practices (e.g. slates and CTAs), not simply containers used for circulation.

Platforms generally retain content, a practice directly tied to platforms' economic dependence upon network effects (Srnicek 2016). In contrast to an exclusionary hard gate, YouTube's soft gate directly impacts content, requiring producers to adjust their content's *formal elements*, not simply external packaging. Thus, the algorithm more directly impacts culture, while allowing more to participate. This keeps with a general pattern of platform governance with heightened centrality

of power alongside heightened autonomy – what Vallas and Schor (2020) call ‘permissive potentates.’

Discussion

Platforms continue, rather than ‘disrupt’ infrastructural gatekeeping, a point suggested quite clearly in above-presented data. Rather than ‘disruption,’ platforms resemble yesteryear’s intermediary organizations, exerting power through complex networks of humans and non-humans, operating at the level of infrastructure and logistics. Corporate power over cultural production continues to operate by means of affording cultural producers and intermediaries’ modest autonomy within complex webs of distribution – what sociologist Timothy Dowd (2004) highlighted nearly 20 years ago in his research on the music industry. Dowd argued that media conglomerates operate under ‘a logic that stresses alliances with freelance personnel and small firms, as well as semiautonomous divisions in-house’ and through these networks ‘the majors are somewhat attuned to genres on the hinterlands that may one day prove profitable’ (2004, 1445). This may be seen above as Midwest remained autonomous, save for the requirements of the conglomerate subsidiary’s distribution infrastructure. The same logic exists in the YouTube context wherein the platform, as virtualized network of content creators and corporate infrastructure, affords autonomy in production, while simultaneously inviting conformity to infrastructural requirements.

In both cases, exclusion occurs not at the level of individual intermediaries *taste* or *genre* – both associated with structural inequality in cultural policy discussions – but at the level of infrastructure. More specifically, the gate being kept by global corporations include or exclude based on infrastructural formatting constraints. Intermediaries such as the record label and MCN perform crucial work of formatting products to better circulate within global conglomerates’ infrastructures. In the conventional case, formatting includes market devices required for distribution (e.g. barcodes and specialized shipping materials; see Muniesa, Millo, and Callon 2007) as well as judgment devices (e.g. album covers, reviews, descriptive materials; see Karpik 2010). In the digital case, formatting also revolved around market and judgment devices, however, the platformized case’s devices tended to more directly shape cultural products’ aesthetics and content (e.g. end slates, calls-to-action, and on-screen text). Within this last similarity exists one of several crucial *differences* determined, in part, by what I call hard and soft gates.

Foremost among these differences is the differing logic of exclusion/inclusion, a difference directly affecting participation in cultural production. Conventional distribution’s hard gate firmly excluded all improperly formatted cultural products, yet the music in those products remained relatively unaffected by the infrastructural gate. In stark contrast, platformized distribution’s soft gate diminishes improperly formatted content’s visibility and value, yet retains said content due to noted economic benefits of large user bases’ network effects (see Srnicek 2016; Vallas and Schor 2020). Ironically, the soft gate’s inclusive invisibility suggests much closer correspondence between content and distribution infrastructure compared to analog distribution infrastructures (e.g. Manuel 1993; Novak 2013) and the constraints of generic digital formats (see Sterne 2012). Closer to my data, Bishop (2020) and Raun (2018) respectively suggest that similarity across platformized content occurs due to a bottom-up process by which individual intermediaries circulate ‘algorithmic lore’ or simply respond to audiences. Complementing those findings, I show a concurrent top-down process by which MCNs and other intermediary organizations act as further vectors by which YouTube reproduces its interests. Thus, I show continuity amidst difference when comparing conventional and platformized intermediaries, lending empirical support to Caplan and Boyd’s theorization of platformized isomorphism (2018).

These differences speak directly to cultural policy’s longstanding emphasis on participation and inclusion. Inclusion alone no longer suffices when attempting to measure participation and ameliorate inequality and, as noted above, contemporary cultural participation includes *production* rather than simply audiences’ access, consumption patterns, and ‘engagement’ (e.g. Jancovich 2017;

Kawashima 2006; O'Hagan 2016; Stevenson, Balling, and Kann-Rasmussen 2017; West and Smith 2005). Considering platforms' 'complexified' entanglement of production and consumption (Casemajor, Bellavance, and Sirois 2021) requires attention to barriers to visibility. Even then, we need concern ourselves with the *conditions* required for full visibility and thus full inclusion. As shown by recent research by Stuart (2020) and Jones (2020), platforms may include many more people, but visibility often requires the performance and reproduction of racist, sexist, and hetero-normative stereotypes under exploitative work conditions just as producers above reproduced and performed capitalist values to enhance circulation.

Conclusion

Discussing how culture 'becomes digital' often assumes a sharp break, discontinuity, or disruption between the analog or conventional and the digital, often synonymously novel, modes of cultural production and distribution. This article contributes to a growing counternarrative in which platform capitalism appears to be clearly rooted within what Anna Tsing calls 'supply-chain' capitalism (2009) in which global multinationals enact their projects of capital accumulation by means of complex, global networks. Platforms such as Google's YouTube act in much the same way but do so by means of Google-owned infrastructures rather than mere contracts. As shown above, this logic runs through both modes of infrastructural gatekeeping.

Even so, this continuity comes with distinctive differences, most notably the logics of inclusion/exclusion. Digital platforms' soft gates heighten participation while producing and obscuring circulation inequality. This directly shapes culture as downstream intermediaries and producers endeavor to be not simply included, but visible and thus valued. In contrast, conventional distribution's hard gate operated by means of exclusion and abject disavowal while leaving cultural products relatively untouched save for the containers within which they circulated. Still, the soft gates of platforms are highly variable from platform to platform – a point that cannot be stressed enough – which leaves much room for future research.

Notes

1. The production of popular music, books, television, films, and magazines follow what Miège (1989) termed the 'publishing logic' wherein a networked organization of small firms producing a range of products with the hope that a few products may be successful enough in terms of sales or status to support other, less successful projects. Given the long history of analysis of this mode of cultural production, I call these established industrial formations *conventional* when compared to 'platformized' cultural production (see Nieborg and Poell 2018).
2. I use pseudonyms throughout for all companies.
3. These practices are very similar post-punk and indie practices in the U.K. and Italy (Hesmondhalgh 1999; Magaudda 2009).
4. In the early 2000s, the three largest media conglomerates purchased the three largest indie rock record distributors (O'Connor 2008).

Acknowledgements

I would like to thank David Wright and the other editors of this special issue; Angèle Cristin, Steven Tuttle, and Pat Reilly for comments on drafts of this manuscript as well as earlier comments on the project from Ching Kwan Lee, Edward Walker, Christopher Kelty, Stefan Bargheer, David Halle, and Gabriel Rossman.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The work was supported by the U.S. National Science Foundation Division of Social and Economic Sciences [Grant No. 1636662].

Notes on contributor

Michael L. Siciliano is a Visiting Scholar in the Department of Communication at Tulane University in the US. His research focuses primarily on how workers become affectively attached to exploitative systems and how infrastructure impacts cultural production. To date, his publications include the book *Creative Control: The ambivalence of work in the culture industries* (Columbia University Press) as well as sole-authored articles in *Ethnography*, *Organization Studies*, *International Journal of Communication*, and *Research in the Sociology of Work*.

ORCID

Michael L. Siciliano  <http://orcid.org/0000-0002-1332-5010>

References

- Acland, C. R., P. Dourish, S. Harris, J. Holt, S. Mattern, T. Miller, C. Sandvig, J. Sterne, H. Tawil-Souri, and P. Vonderau. 2015. *Signal Traffic: Critical Studies of Media Infrastructures*. 1st ed. edited by L. Parks and N. Starosielski. Urbana: University of Illinois Press.
- Adorno, T. W. 1991. "The Culture Industry Reconsidered." In *The Culture Industry: Selected Essays on Mass Culture*, edited by J. M. Bernstein, 98–106. London: Routledge.
- Anand, N., and R. A. Peterson. 2000. "When Market Information Constitutes Fields: Sensemaking of Markets in the Commercial Music Industry." *Organization Science* 11 (3, Special Issue: Cultural Industries: Learning from Evolving Organizational Practices): 270–284. doi:10.1287/orsc.11.3.270.12502.
- Ananny, M. 2016. "Toward an Ethics of Algorithms: Convening, Observation, Probability, and Timeliness." *Science, Technology, & Human Values* 41 (1): 93–117. doi:10.1177/0162243915606523.
- Appadurai, A. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Ninth Printing ed. Minneapolis, Minn: University of Minnesota Press.
- Bielby, W. T., and D. Bielby. 1994. "all Hits are Flukes': Institutionalized Decision Making and the Rhetoric of Network Prime-Time Program Development." *The American Journal of Sociology* 99 (5): 1287–1313. doi:10.1086/230412.
- Bishop, S. 2020. "Algorithmic Experts: Selling Algorithmic Lore on YouTube." *Social Media + Society* 6 (1): 2056305119897323. doi:10.1177/2056305119897323.
- Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, MA: Harvard University Press.
- Bourdieu, P. 1990. *The Logic of Practice*. Cambridge: Polity.
- Bourdieu, P. 1993. *The Field of Cultural Production: Essays on Art and Literature*. New York: Columbia University Press.
- Boutang, Y. M. 2011. *Cognitive Capitalism*. Cambridge: Polity Press.
- Braun, J. A. 2015. *This Program is Brought to You by ...: Distributing Television News Online*. 1st ed. New Haven, CT: Yale University Press.
- Bucher, T. 2012. "Want to Be on the Top? Algorithmic Power and the Threat of Invisibility on Facebook." *New Media & Society* 14 (7): 1164–1180, April. doi:10.1177/1461444812440159.
- Burawoy, M. 1998. *The Extended Case Method*. Berkeley, CA: University of California Press.
- Burgess, J., and J. Green. 2009. "The Entrepreneurial Vlogger: Participatory Culture Beyond the Professional- Amateur Divide." In *The YouTube Reader*, edited by P. Snickars and P. Vonderau, 89–107. Cambridge: Polity.
- Caldwell, J. T. 2008. *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham, NC: Duke University Press.
- Callon, M. 1998. "An Essay on Framing and Overflowing: Economics Revisited by Sociology." In *Laws of the Markets*, edited by M. Callon, 244–269. New York: Wiley.
- Caplan, R., and D. Boyd. 2018. "Isomorphism Through Algorithms: Institutional Dependencies in the Case of Facebook." *Big Data & Society* 5 (1): 2053951718757253. doi:10.1177/2053951718757253.
- Casemajor, N., G. Bellavance, and G. Sirois. 2021. "Cultural Participation in Digital Environments: Goals and Stakes for Quebec Cultural Policies." *International Journal of Cultural Policy* 27 (5): 650–666. doi:10.1080/10286632.2020.1825403.
- Castells, M. 2010. *Rise of the Network Society: Volume 1 of the Information Age: Economy, Society, and Culture*. Oxford, England: Wiley-Blackwell.
- Caves, R. E. 2000. *Creative Industries: Contracts Between Art and Commerce*. Cambridge, MA: Harvard University Press.

- Cetina, K. K., and U. Bruegger. 2000. "The Market as an Object of Attachment: Exploring Postsocial Relations in Financial Markets." *The Canadian Journal of Sociology* 25 (2): 141–168. doi:10.2307/3341821.
- Childress, C. 2017. *Under the Cover: The Creation, Production, and Reception of a Novel*. Princeton, NJ: Princeton University Press.
- Christin, A. 2020. *Metrics at Work: Journalism and the Contested Meaning of Algorithms*. Princeton: Princeton University Press.
- Cunningham, S., and D. Craig. 2019. *Social Media Entertainment: The New Intersection of Hollywood and Silicon Valley*. New York: NYU Press.
- Deleuze, G. 1992. "Postscript on the Societies of Control." *October* 59: 3–7.
- Dijck, J. V. 2013. *The Culture of Connectivity: A Critical History of Social Media*. Oxford: Oxford University Press.
- Dijck, J. V., T. Poell, and M. de Waal. 2018. *The Platform Society: Public Values in a Connective World*. Oxford: Oxford University Press.
- Dowd, T. J. 2004. "Concentration and Diversity Revisited: Production Logics and the U.S. Mainstream Recording Market, 1940–1990." *Social Forces* 82 (4): 1411–1455. doi:10.1353/sof.2004.0067.
- Duffy, B. E. 2017. *(Not) Getting Paid to Do What You Love: Gender, Social Media, and Aspirational Work*. New Haven, CT: Yale University Press.
- Finnegan, R. 1989. *The Hidden Musicians: Music-Making in an English Town*. Middletown, CT: Wesleyan University Press.
- Grindstaff, L. 2002. *The Money Shot: Trash, Class, and the Making of TV Talk Shows*. 1st ed. Chicago: University Of Chicago Press.
- Hesmondhalgh, D. 1999. "Indie: The Institutional Politics and Aesthetics of a Popular Music Genre." *Cultural Studies* 13 (1): 34–61. doi:10.1080/095023899335365.
- Hesmondhalgh, D. 2007. *The Cultural Industries*. Sherman Oaks, CA: SAGE Publications.
- Hesmondhalgh, D. 2021. "The Infrastructural Turn in Media and Internet Research." In *The Routledge Companion to Media Industries*, edited by P. McDonald. Abingdon: Routledge.
- Hesmondhalgh, D., and S. Baker. 2015. "Sex, Gender and Work Segregation in the Cultural Industries." *The Sociological Review* 63 (S1): 23–36. doi:10.1111/1467-954X.12238.
- Hirsch, P. M. 1972. "Processing Fads and Fashions: An Organization-Set Analysis of Cultural Industry Systems." *The American Journal of Sociology* 77 (4): 639–659. doi:10.1086/225192.
- Hockenberry, M., S. Zieger, and N. Starosielski, eds. 2021. *Assembly Codes: The Logistics of Media*. Durham, NC: Duke University Press.
- Holt, F. 2007. *Genre in Popular Music*. Chicago: University of Chicago Press.
- Horkheimer, M., and T. Adorno. 1947. "The Culture Industry: Enlightenment as Mass Deception." In *Dialectic of Enlightenment*, translated by J. Cumming, 120–168. New York: Herder and Herder.
- Jancovich, L. 2017. "The Participation Myth." *International Journal of Cultural Policy* 23 (1): 107–121. doi:10.1080/10286632.2015.1027698.
- Jenkins, H. 2006. *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press.
- Jones, A. 2020. *Camming: Money, Power, and Pleasure in the Sex Work Industry*. New York: NYU Press.
- Karpik, L. 2010. *Valuing the Unique: The Economics of Singularities*. Translated by N. Scott. Princeton, NJ: Princeton University Press.
- Karubian, S. 2008. 360 Deals: An Industry Reaction to the Devaluation of Recorded Music Southern California Interdisciplinary Law Journal 18 395–462
- Kawashima, N. 2006. "Audience Development and Social Inclusion in Britain." *International Journal of Cultural Policy* 12 (1): 55–72. doi:10.1080/10286630600613309.
- Kelty, C. 2020. *The Participant: A Century of Participation in Four Stories*. Chicago, IL: University of Chicago Press.
- Kelty, C., A. Panofsky, M. Currie, R. Crooks, S. Erickson, P. Garcia, M. Wartenbe, and S. Wood. 2015. "Seven Dimensions of Contemporary Participation Disentangled." *Journal of the Association for Information Science and Technology* 66 (3): 474–488. doi:10.1002/asi.23202.
- Langley, P., and A. Leyshon. 2017. "Platform Capitalism: The Intermediation and Capitalization of Digital Economic Circulation." *Finance and Society* 3 (1): 11–31. doi:10.2218/finsoc.v3i1.1936.
- Lee, S. 1995. "Re-Examining the Concept of the 'Independent' Record Company: The Case of Wax Trax! Records." *Popular Music* 14 (1): 13–31. doi:10.1017/S0261143000007613.
- MacDonald, T. W. 2021. "How It Actually Works: Algorithmic Lore Videos as Market Devices." *New Media & Society*.
- Magaudda, P. 2009. "Processes of Institutionalisation and 'Symbolic Struggles' in the 'Independent Music' Field in Italy." *Modern Italy* 14 (3): 295–310. doi:10.1080/13532940802556578.
- Maguire, J. S., and J. Matthews. 2010. "Cultural Intermediaries and the Media." *Sociology Compass* 4 (7): 405–416. doi:10.1111/j.1751-9020.2010.00285.x.
- Manuel, P. 1993. *Cassette Culture: Popular Music and Technology in North India*. Chicago, IL: University of Chicago Press.
- Mears, A. 2011. *Pricing Beauty: The Making of a Fashion Model*. 1st ed. Berkeley, CA: University of California Press.
- Miège, B. 1989. *The Capitalization of Cultural Production*. New York: International General.
- Morris, J. W. 2020. "Music Platforms and the Optimization of Culture:." *Social Media + Society* 6 (3): 205630512094069, July. doi:10.1177/2056305120940690.

- Muniesa, F., Y. Millo, and M. Callon. 2007. "An Introduction to Market Devices." *The Sociological Review* 55: 1–12. doi:10.1111/j.1467-954X.2007.00727.x.
- Napoli, P. M. 2003. *Audience Economics: Media Institutions and the Audience Marketplace*. New York: Columbia University Press.
- Negus, K. 1999. *Music Genres and Corporate Cultures*. London: Routledge.
- Negus, K. 2002. "THE Work of Cultural Intermediaries and the Enduring Distance Between Production and Consumption." *Cultural Studies* 16 (July): 501–515. doi:10.1080/09502380210139089.
- Nieborg, D. B., and T. Poell. 2018. "The Platformization of Cultural Production: Theorizing the Contingent Cultural Commodity." *New Media & Society* 20 (11): 4275–4292, April. doi:10.1177/1461444818769694.
- Nixon, S., and P. Du Gay. 2002. "Who Needs Cultural Intermediaries?" *Cultural Studies* 16 (4): 495–500.
- Novak, D. 2013. *Japanoise: Music at the Edge of Circulation*. Durham, NC: Duke University Press.
- O'Connor, A. 2008. Punk Record Labels and the Struggle for Autonomy : The Emergence of DIY/. *Critical Media Studies*. Lanham: Lexington Books.
- O'Hagan, J. 2016. "European Statistics on Cultural Participation and Their International Comparability." *International Journal of Cultural Policy* 22 (2): 291–303. doi:10.1080/10286632.2014.973870.
- Pasquale, F. 2015. *The Black Box Society*. Cambridge, MA: Harvard University Press.
- Peterson, R. A. 1997. *Creating Country Music: Fabricating Authenticity*. Chicago: University of Chicago Press.
- Peterson, R. A., and N. Anand. 2004. "The Production of Culture Perspective." *Annual Review of Sociology* 30 (1): 311–334. doi:10.1146/annurev.soc.30.012703.110557.
- QRD. 2008. "Interview with Patrick Monaghan of Carrot Top Distribution." June. <http://www.silbermedia.com/qrd/archives/38ctd.html>
- QRD. 2010. "Record Label Owner Interviews." November. <http://www.silbermedia.com/qrd/archives/45about.html>
- QRD. 2011a. "Record Label Owner Interviews." January. <http://www.silbermedia.com/qrd/archives/47about.html>
- QRD. 2011b. "Record Label Owner Interviews." June. <http://www.silbermedia.com/qrd/archives/52about.html>
- Raun, T. 2018. "Capitalizing Intimacy: New Subcultural Forms of Micro-Celebrity Strategies and Affective Labour on YouTube." *Convergence* 24 (1): 99–113. doi:10.1177/1354856517736983.
- Rossman, G. 2012. *Climbing the Charts: What Radio Airplay Tells Us About the Diffusion of Innovation*. Princeton, NJ: Princeton University Press.
- Roussel, V. 2017. *Representing Talent: Hollywood Agents and the Making of Movies*. Illustrated ed. Chicago: University of Chicago Press.
- Rubio, F. D. 2020. *Still Life: Ecologies of the Modern Imagination at the Art Museum*. Chicago, IL: University of Chicago Press.
- Sandvig, C. 2015. "The Internet as the Anti-Television: Distribution Infrastructure as Culture and Power." In *Signal Traffic: Critical Studies of Media Infrastructures*, edited by L. Parks and N. Starosielski, 225–245. Urbana, IL: University of Illinois Press.
- Sharone, O. 2017. "LinkedIn or LinkedOut? How Social Networking Sites are Reshaping the Labor Market." *Research in the Sociology of Work* 30 (1): 1–31.
- Siciliano, M. 2016. "Control from on High: Cloud-Computing, Skill, and Acute Frustration Among Analytics Workers in the Digital Publishing Industry." *Research in the Sociology of Work* 29 (1): 125–153.
- Siciliano, M. 2021. *Creative Control*. New York: Columbia University Press.
- Siciliano, M., and A. O'Connor. 2012. "MAXIMUMSOCIALSCIENCE: A Conversation/Interview with Alan O'Connor." In *Punkademics*, edited by Z. Furness, 91–104. Brooklyn, NY: Autonomedia.
- Smith, W. 1994. *Act Like Nothing's Wrong: The Montage Art of Winston Smith*. San Francisco, CA: Last Gasp.
- Srnicek, N. 2016. *Platform Capitalism*. 1st ed. Cambridge: Polity.
- Sterne, J. 2012. *MP3: The Meaning of a Format*. Durham, NC: Duke University Press.
- Stevenson, D., G. Balling, and N. Kann-Rasmussen. 2017. "Cultural Participation in Europe: Shared Problem or Shared Problematisation?" *International Journal of Cultural Policy* 23 (1): 89–106. doi:10.1080/10286632.2015.1043290.
- Stuart, F. 2020. *Ballad of the Bullet: Gangs, Drill Music, and the Power of Online Infamy*. Princeton, NJ: Princeton University Press.
- Thrift, N. J. 2005. *Knowing Capitalism*. Sherman Oaks, CA: SAGE.
- Tsing, A. 2009. "Supply Chains and the Human Condition." *Rethinking Marxism* 21 (2): 148–176. doi:10.1080/08935690902743088.
- Vallas, S. P., and J. B. Schor. 2020. "What Do Platforms Do? Understanding the Gig Economy." *Annual Review of Sociology* 46 (1): 273–294. doi:10.1146/annurev-soc-121919-054857.
- Valtysson, B. 2010. "Access Culture: Web 2.0 and Cultural Participation." *International Journal of Cultural Policy* 16 (2): 200–214. doi:10.1080/10286630902902954.
- West, C., and C. H. F. Smith. 2005. "'We are Not a Government Poodle.'" *International Journal of Cultural Policy* 11 (3): 275–288. doi:10.1080/10286630500411259.
- Wright, D. 2019. "Towards a Computational Cultural Policy Studies: Examining Infrastructures of Taste and Participation." *International Journal of Cultural Policy* 25 (6): 806–820.