

# Algorithmic precarity in cultural work

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## Abstract

While work in the media and cultural industries has long been considered precarious, the processes and logics of platformization have injected new sources of instability into the creative labor economy. Among the sources of such insecurity are platforms' algorithms, which structure the production, circulation, and consumption of cultural content in capricious, enigmatic, even biased ways. Accordingly, cultural producers' conditions and experiences are increasingly wrought by their understandings—and moreover their anticipation—of platforms' ever-evolving algorithmic systems. Against this backdrop, I urge fellow researchers of digital culture and society to consider how this mode of “algorithmic precarity” exacerbates the instability of cultural work in the platform era. Considering the volatility of algorithms and the wider cross-platform ecology can help us to develop critical interventions into a creative economy marked by a profoundly uneven allocation of power between platforms and the laborers who populate—and increasingly—power them.

## Keywords

Algorithms, cultural production, platforms, precarity, social media, work and labor

From hard-hitting accounts of on-demand workers allegedly “screwed by the algorithm” (Weill, 2019) to empirical reports on the gig economy's lopsided mechanisms of evaluating and rewarding labor participants (Mateescu & Nguyen, 2019; Rosenblat & Stark, 2016), evidence abounds of the role of algorithmic systems in structuring the contemporary employment economy. As Kellogg et al. (2020) summarize, algorithms increasingly function as a “contested terrain of control” in the labor market, steering workers through overlapping systems that direct, evaluate, and discipline them (p. 366). It is against this backdrop that scholars, policy analysts, and journalists have adopted a shared metaphor of the digital platform economy's regime of management:

*the algorithmic boss* (O'Connor, 2016; Prassl, 2018; Rosenblat, 2018).

The metaphor of the algorithmic boss is also apt in the fields of media and creative production, particularly as cultural industries—from music to entertainment, journalism to fashion—undergo a series of political economic and cultural transformations as part of the processes and logics of platformization (Nieborg & Poell, 2018; Poell et al., forthcoming). In fact, those pursuing work in the platformized cultural industries experience the impact of algorithmic

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systems acutely. Working in fields that have long relied upon metricized reputation-building and evaluative systems (i.e. audience ratings, industry rankings, and much-hyped rewards) means that they are uniquely attuned to the tradition of casting visibility as success (e.g. Bishop, 2020; Bucher, 2017; Chan, 2019; Cotter, 2019; Gandini, 2016; Gillespie, 2016). Today's cultural workers—be it freelance journalists scouring Upwork for gigs, influencers deftly managing their Instagram brand-persona, or aspiring musicians seeking to garner an audience on TikTok—are thus exhorted to learn about platforms' algorithmic systems in earnest. Fortunately, recent scholarship in the fields of media and communication offers rich insight into platform-specific communities of cultural workers as they navigate the algorithms of various platforms. Often drawing upon in-depth interviews or analyses of community discourses, these studies reveal how socially mediated cultural workers try to make sense of the *inscrutable-by-design* algorithms that govern YouTube (Bishop, 2020; Caplan & Gillespie, 2020; Cunningham & Craig, 2019; Mehta, 2019), Pinterest (Klawitter & Hargittai, 2018; Scolere, 2019), and Instagram (Cotter, 2019; Duffy & Sawey, in press; O'Meara, 2019; Petre et al., 2019), among others. A *constant* theme across this research is—rather aphoristically—algorithmic *change*.

Collectively, such research makes clear that it is not enough to conceptualize the algorithmic systems of social media platforms as inscrutable; we must go further by accounting for their capriciousness. That is, these systems of algorithms are contingent upon deeply flawed moderation systems and updates enacted under the vague pretenses of “user experience” or “safety.” It is no small wonder that cultural workers of various stripes endeavor to “beat the algorithm” of the central platform on which they rely for income and/or status (Cotter, 2019; Petre et al., 2019). To be sure, everyday users of these platforms confront the fickle realities of algorithmic systems, too, with some users collectively expressing dissent in the face of changes that blindsided them. Members of Twitter, for instance, expressed public outrage when the platform abruptly moved to an algorithmically ordered timeline (DeVito et al., 2017). But for cultural workers whose incomes are predicated on the platformized visibility of their self-produced personae and/or products, understanding and anticipating

algorithmic change takes on a heightened sense of urgency. As Klawitter and Hargittai (2018) argue to this end, creative entrepreneurs who rely upon sites like Pinterest “are more incentivized than most in understanding how [algorithmically curated] feeds decide what to display to users.” Indeed, because “their livelihood directly depends on such exposure,” cultural workers on Pinterest “likely exert more time and effort on getting to know these systems than average users” (p. 3504).

As my own recent research attests, Pinterest entrepreneurs are by no means the only category of worker to be hyper-attuned to algorithmic systems. During interviews, my collaborators and I learned that those pursuing career success on TikTok, Instagram, YouTube, and freelance sites like Upwork routinely cast algorithm skills-building as a *necessary part of the job* (Duffy et al., 2019; Duffy & Sawey, in press). Consequently, cultural workers and aspirants invest their time and energies trying to make sense of platforms' algorithmic systems. Workers' particular sense-making strategies vary—from using reverse engineering to discern their logic to investing their personal resources in algorithmic consultants (see also Bishop, 2019; Chan, 2019).

But workers do not just respond to algorithmic changes; they structure themselves in anticipation of them. It is in this vein that Annika Pinch, Shruti Sannon, and I have offered the term “algorithmic precarity” (Duffy et al., 2019) to capture the turbulence and flux that emerge as a routine feature of platformized labor. The term not only reflects but also deepens our awareness of the instability that has long been a hallmark of careers in the media and cultural industries. (Deuze & Prenger, 2019). The precarious nature of algorithmic visibility was brought into sharp relief earlier this year, in the context of COVID-related communication and information. In March, reports began to circulate that YouTubers who mentioned the term “coronavirus” in their videos were being demonetized (Alexander, 2020). The platform's stated reason was to “protect” advertisers from being associated with so-called “sensitive content.”<sup>1</sup> Yet, it was independent content creators who felt the bottom-line impact. As one creator told Chris Stokel-Walker (2020), “This is YouTube . . . They make the rules; it's my job to try and figure out what the hell they even are before they change again” (para. 10).

Independent cultural producers' experiences with algorithmic precarity can range from feelings of annoyance and frustration to substantial angst on the havoc wreaked on their revenue streams. In their analysis of YouTube's confounding system of demonetization, Caplan and Gillespie (2020) describe a proto-genre of "creators expressing their discontent with what they felt was a formal set of policies designed to de-prioritize user-generated content and prioritize traditional media clips that were more predictably advertiser-friendly" (p. 1). Other cultural producers, by contrast, issue more surreptitious critiques of the platforms on which they have built an audience. In 2016, for instance, Instagram abruptly swapped its chronological feed for an algorithmically curated one—a move company reps billed as an effort to prioritize "the moments you care about." In response, countless Instagrammers reported staggering declines in their likes, comments, and, consequently, incomes (Cotter, 2019; Duffy & Sawey, in press; Petre et al., 2019). Some responded with participation in digitally enabled collectives (O'Meara, 2019); others, meanwhile, described feelings of frustration, having little recourse when it comes to incessant platform change or—to use a Big Tech's euphemism—"disruption."

While much more could be said about the nature, thematic contours, and experiences of algorithmic precarity, it is critically important to locate it within wider regimes of instability (Duffy et al., 2019). Indeed, nearly all socially mediated cultural workers confront the threat that the platforms on which they have built their reputations may suddenly vanish. Cunningham and Craig (2019), for instance, have noted how the "platform precarity" of the social media ecosystem propels cultural workers to adopt patterned self-branding practices to mitigate uncertainty. One such practice is the cultivation of an online persona that spans platforms and online subcultures. As one content creator tellingly shared during a research interview,

Social media in general is always changing. I feel like Facebook ten years ago was the thing. Then, here comes Instagram. Now, Instagram's the thing. But what's going to be next? Is it going to be Instagram? We don't know. There's Snapchat, Twitter, YouTube . . . If you put all your time and focus in one platform, you're in some trouble. (Duffy & Sawey, in press)

Cultural producers' fears are not unfounded, of course. When buzzy creator hub Vine shuttered in 2017, those who had amassed significant followings struggled to move their fan bases to a different platform without much notice. Nobody knows what social network will be the next one to join the sprawling platform graveyard, although much attention has focused on relative newcomer TikTok, with its fraught system of rewarding creators (Matsikis, 2020).

In light of such volatility, I urge fellow researchers of digital culture and society to consider how what we term "algorithmic precarity" exacerbates the instability of cultural work in the platform era. Lest we lose sight of the historical context, algorithmic precarity is an amplification of the uncertainty of career sectors long marked by itinerant schedules, a lack of stable benefits, few opportunities for paid training, and the cautionary mantra: "You're only as good as your last job" (Blair, 2001). In reworking the cultural industry worker mantra, "you are only as good as your last product," it seems that cultural workers amid platformization are *only as good as their knowledge of the algorithm*. The concept of algorithmic precarity opens up analytic space to ground cultural producers' experiences with algorithms, without losing sight of the role of these systems in driving the curated, data-driven worlds of platformized content we increasingly inhabit. As such, this stream of research should coexist with—rather than supplant—recent interventions into algorithmic bias and transparency. Considering the capriciousness of algorithms and the wider cross-platform ecology can help us to develop new interventions into the profoundly uneven and inequitable platformized cultural economy.

## Note

1. Initially, virus-related communication was considered "sensitive content," and the site wants to protect its advertisers from anything controversial, including with "videos about things like mass shootings, terrorist acts, armed conflicts and global health crises." YouTube reversed the decision a few weeks later, largely in an effort to enable mainstream media outlets to provide information about the virus (see Alexander, 2020).
2. The author would like to express gratitude to Guobin Yang, Rosemary Clark-Parsons, Julia Ticona, and her fellow participants in the Center on Digital Culture and Society sympos.

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### Author biography

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