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Making Peace with Metrics: Relational Work in Online News Production

Angèle Christin[*] Caitlin Petre[†]

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Abstract

How do workers make peace with performance metrics that threaten their professional values? Drawing on Viviana Zelizer's concepts of relational work and "good matches," we focus on the case of online news production and analyze efforts to align audience metrics with journalistic values. Whereas existing research on web metrics tends to frame editorial production and audience data as "hostile worlds" of professional and market forces that cannot be reconciled, we show that journalists rely on relational work to make metrics acceptable within organizations. Drawing on ethnographic material, we identify five key relational strategies: moral boundary-drawing between "good" and "bad" metrics, strategic invocation of "best-case scenarios," domestication through bespoke metrics, reframing metrics as democratic feedback, and justifying metrics as organizational subsidies. We then turn to cases of failure and document a process that we call overspelling, which can coincide with organizational breakdown. We conclude by discussing the concept of "failed matches" and the indirect relationship between metrics and markets in online news production.

Keywords: Journalism; metrics; relational work; Zelizer; matching.

[*] Department of Communication, Stanford University (United States); angelec@stanford.edu; https://orcid.org/0000-0002-7437-2013

[†] School of Communication and Information, Rutgers University, Brunswick, NJ (United States); https://orcid.org/0000-0001-7846-9659

1 Introduction[1]

In recent decades, economic sociologists have shifted focus from a structural definition of "the economy" primarily centered on markets, firms, and networks, to more cultural approaches analyzing the multiple meaning-making and evaluative activities involved whenever economic transactions take place. A growing literature, sometimes labeled the "(e)valuation perspective" (Lamont, 2012; Stark, 2009), examines the conflicts and negotiations that take place between economic calculations of "value" and other — artistic, moral, intimate, etc. — definitions of "values." Of particular interest in this vein is Viviana Zelizer's approach (Zelizer, 1994, 1997, 2007, 2010), which challenges previous scholarship that conceptualized the realms of economic and intimate transactions as incommensurable "hostile worlds." Instead, Zelizer argues that social actors engage in complex forms of relational work to establish "viable matches" between monetary transactions and social relations.

In this article, we draw on the Zelizerian framework and the (e)valuation perspective to analyze a different topic: contemporary news production, and specifically the question of how web journalists make sense of — and make peace with — traffic metrics. Journalists are now exposed to copious quantitative data about the preferences and behavior of online readers (Anderson, 2011a; Christin, 2020; Petre, 2015). In the early stages of the adoption of web analytics software programs, many journalists and experts sounded dire warnings about the potential of audience metrics to diminish news quality (e.g., Carr, 2014; Fischer, 2014; Herrman, 2012; Shire, 2014). Yet such concerns have grown more muted in recent years, as metrics have become more solidly institutionalized and taken-for-granted in newsrooms. We argue that Zelizer's framework — in particular her concepts of relational work and "matching" — provide a helpful lens to understand how and why such a shift took place.

Drawing on ethnographic material and secondary literature gathered from a range of web newsrooms between 2011 and 2020, we examine how journalists sought to reconcile audience metrics with their professional values and editorial priorities. We identify five main relational strategies — moral boundary-drawing, strategic invocation, domestication, reframing metrics as democratic feedback, and justifying metrics as organizational subsidies — through which journalists aimed to make peace with metrics. In so doing, they sought to transition from a "hostile worlds" perspective, in which metrics and journalistic professionalism were seen as fundamentally incompatible, to "good matches" in which tensions between journalism's civic and commercial value were perceived to be neutralized. Yet we also find that sometimes "bad matches" prevailed, in which disagreements arose within news organizations about what metrics signified. Often, such cases took the form of what we call an "overspelling" of metrics, in which the connection between metrics and financial revenue was made too explicit, typically by managers. We argue that managerial failure to create relational matches between metrics and journalistic values can lead to low newsroom morale, resistance, and in extreme cases, organizational collapse. These failed instances raise important questions about the structural determinants of "good" versus "bad" matches in organizational settings.

By putting the evaluation framework to work on the case of journalism, we offer a novel perspective on the evolution of the field of online news with respect to metrics. We conclude by emphasizing the need for interdisciplinary theorization at the crossroads between economic sociology, evaluation, and algorithmic technologies of quantification.

1. The two authors contributed equally and are listed alphabetically.

2 From Markets to Metrics

We begin this analysis by introducing the Zelizerian framework in economic sociology and delineating how it can shed light on the concrete effects of audience metrics in web newsrooms. Specifically, we argue that bringing the evaluation perspective to the question of technologies of quantification, in the case of online news and beyond, opens several new avenues of research, which we turn to in the rest of the article.

2.1 Moralized Markets and the Zelizerian Perspective in Economic Sociology

Over recent decades, the subfield of economic sociology has witnessed several important developments. First, against the rhetoric of individual rationality and market efficiency that shapes economics as a discipline, economic sociologists have revived the Polanyian idea that economic activities are "embedded" within social structures, most notably social networks and organizational forms (DiMaggio & Louch, 1998; DiMaggio & Powell, 1983; Granovetter, 1995). Second, several frameworks have emerged that focus on the moral and cultural foundations of economic activities. These approaches, sometimes grouped together as the "(e)valuation perspective" (Lamont, 2012), pay closer attention not only to the structural and social determinants of economic exchanges but also to the complex repertoires and modes of evaluation mobilized to make them meaningful and acceptable for participants (Beckert & Aspers, 2011; Boltanski & Thévenot, 2006; Stark, 2009; Vatin, 2009).

Of particular interest in this context is the work of economic sociologist Viviana Zelizer (1994, 1996, 1997, 2007, 2010). Through in-depth historical analyses of a wide range of cases involving economic transactions — from the transformation of child insurance in the late nineteenth century to the study of contemporary court cases involving intimate relationships and monetary exchanges — Zelizer makes several important contributions to our understanding of the moral foundations of market processes (Ossandón & Zelizer, 2019). Against existing accounts (both Marxist and neoclassical) that describe market activities and social connections as "hostile worlds" that cannot and should not be mixed, Zelizer shows that economic activities are not merely "embedded" within social structures: instead, these activities are themselves profoundly social, cultural, and moral. To make sense of these dynamics, Zelizer introduces the concept of "relational work," through which she analyzes social actors' cultural and moral efforts to create "good matches" between existing economic transactions and social relations. According to Zelizer,

> In all economic action (…) people engage in the process of differentiating meaningful social relations. For each distinct category of social relations, people erect a boundary, mark the boundary by means of names and practices, establish a set of distinctive understandings that operate within that boundary, designate certain sorts of economic transactions as appropriate for the relation, bar other transactions as inappropriate, and adopt certain media for reckoning and facilitating economic transactions within the relation. I call that process relational work (Zelizer, 2012, p. 145).

A particularly salient type of relational work is "earmarking," the process through which people make fine-grained distinctions between different origins and uses of money depending on the social interactions and settings they are tied to. For instance, Zelizer shows how money coming from women's wages is often framed as "pocket money" in domestic exchanges (Zelizer, 1994); she also analyzes other cases ranging from bribes to wedding donations where special "monies" are carefully earmarked and distinguished from other sums that are not endowed with the same meanings.

The Zelizerian framework has been implemented in a variety of empirical cases involving market exchanges and social connections (Bandelj, 2020), including healthcare (Reich, 2012, 2014), organ donation (Healy, 2010), reproductive goods (Almeling, 2007), the fashion industry (Mears, 2011a & 2011b), and everyday economic transactions (Wherry et al., 2019). Based on this literature, we identify two areas for further research. First, most existing studies focus on "good matches," analyzing how people and organizations successfully connect monetary transactions and social relations through relational work. Fewer instances of research explore "bad matches," or cases where such relational efforts fail or are absent (Fourcade, 2012; Reich, 2014, p. 10; Bandelj 2020, p. 266).

A second set of questions regards the domain of application of the Zelizerian perspective. So far, Zelizer's relational approach has primarily been applied to cases involving explicit monetary transactions: there has been little research about non-monetary phenomena. With few exceptions (Fourcade & Kluttz, 2020; Kiviat, 2019), scholars have not relied on the evaluation framework to analyze how people and institutions make sense of digital technologies of quantification. Yet a growing number of market and monetary exchanges are now mediated through metrics, algorithms, and analytics of all sorts, often grouped under the umbrella term of "big data" (boyd & Crawford, 2012). More broadly, one could argue that money is only *one* instantiation — admittedly an important one — of the broader category of metrics and numbers (Espeland & Stevens, 1998). What can we gain by applying the Zelizerian framework to the case of online metrics? And what can this tell us about the relational efforts that take place to render digital technologies of quantification acceptable? We explore this question by focusing on the case of audience analytics in web newsrooms.

2.2 Metrics in Web Newsrooms

As journalism commercialized in the early twentieth century, journalists' professionalization project increasingly centered on the establishment of structural and symbolic divisions in news organizations between the "hostile worlds" of commercialism, on the one hand, and journalistic professionalism, on the other (Salcetti, 1995). In 1904, Joseph Pulitzer drew a clear division between the business and professional sides of news:

> Few men in the business office of a newspaper know anything about the principles of journalism… There is an obvious difference between a business and a profession. An editor, an editorial writer or a correspondent is not in business. Nor is even a capable reporter. These men are already in a profession, though they may not admit it or even realize it… The man in the counting-room of a newspaper is in the Newspaper business. He concentrates his brain (quite legitimately) upon the commercial aspects of things, upon the margin of profit, upon the reduction of expenses, upon buying white paper and selling it printed — that is business. But a man who has the advantage, honor and pleasure of addressing the public every day as a writer or thinker is a professional man (pp. 656–657).

Pulitzer's framing of the differentiation between the newspaper employees in the "counting-room" and those in the newsroom has proved remarkably durable, both over time and across news organizations that are otherwise quite distinct from one another. The most familiar contemporary manifestation of the commercialism/professionalism division is the (sometimes literal) "wall" that is meant to separate the business and editorial sides of newspapers — e.g., newsroom staff at the *Chicago Tribune* famously took different elevators from their business-side counterparts (Merritt, 2005).

Journalists have also reinforced the division through their discursive practices, perhaps most notably by evincing a profound lack of interest in their audiences. Classical studies of print newsrooms documented how journalists ignored the reports of marketing departments and the feedback of their readers, dismissing most letters to the editor as "insane" (Darnton, 1975; Gans, 1979; Wahl-Jorgensen, 2002; though see Nadler 2016). Instead, they placed far greater weight on the opinions of their colleagues and editorial supervisors, who were thought to have an understanding of journalistic professionalism that, unlike market research on audience demographics and preferences, was uncontaminated by the concerns of the business office (Gans, 1979).

Yet as news production and consumption largely moved online over the past three decades, the relationship between journalists and their audiences has evolved (Boczkowski, 2005). In contrast to their print-era counterparts, web newsrooms became increasingly saturated with flows of data about the behavior of their online audiences (Anderson, 2011a; Napoli, 2011; Usher, 2013). Often called "audience metrics" or "web analytics," audience data in web newsrooms began with relatively basic server metrics — most notably pageviews — before becoming increasingly complex as the demand and market for web analytics grew. Throughout the 2010s, web newsrooms built or licensed sophisticated software programs and analytics dashboards providing a range of fine-grained quantitative information, often in real-time, about online readers. The data provided by these tools varies, but typically includes pageviews and unique visitors, social media metrics, sources of traffic, time engaged, geolocation of readers, pinned tweets and posts, as well as comparison with historical data (Christin, 2018 & 2020; Petre, 2015 & 2018).

Audience metrics are hardly the only way in which commercial considerations have "breached" the wall between the business and editorial sides of contemporary news organizations — for instance, the rise of native advertising prompted similar worries (Carlson, 2015; see also Coddington, 2015). And yet, because colorful, dynamic analytics dashboards are often displayed on large flatscreen monitors throughout newsrooms, audience metrics are perhaps the most *vivid* representation of the encroachment of commercial considerations into the domain of journalistic professionalism. Nor could journalists simply ignore audience data as their predecessors had done — as news organizations were plunged into a revenue crisis in the 2000s, journalists faced intensifying pressure to increase advertising and digital subscription revenue by boosting traffic to their sites.

As these technologies of quantification multiplied in web newsrooms in the United States and elsewhere, the literature documenting their uses and effects in news production also grew. Existing studies analyze the conflicted feelings that journalists have with respect to web metrics; the disciplining aspect of this data, as well as the contests for popularity that they can create in web newsrooms; how these metrics are increasingly used to allocate scarce resources and bonuses to staff writers in a competitive media landscape; the ethical and editorial considerations that go into "following the metrics" as a guide for news production; as well as the distinct uses and interpretations of metrics depending on the team, newsroom, and national setting under consideration (See, e.g., Anderson, 2011a & 2011b; Belair-Gagnon & Holton, 2018; Blanchett Neheli, 2018; Boczkowski & Mitchelstein, 2013; Bunce, 2019; Christin, 2018 & 2020; Ferrer-Conill & Tandoc, 2018; Petre, 2015 & 2018; Tandoc & Thomas, 2015; Usher,

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2013).

From these studies also emerges an interesting shift over time. Early scholarship on newsroom analytics found that journalists largely perceived audience metrics and journalistic professionalism as hostile worlds. In interviews and ethnographic work from the period when metrics were first introduced, reporters and editors alike were deeply skeptical and critical of metrics because of their perceived connections to market forces and "clickbait" content (Anderson, 2011a, 2011b, 2013). However, later studies documented a growing acceptance of metrics among journalists and editors (Blanchett Neheli, 2018; Hanusch, 2017; Zamith, 2018). Over the course of the 2010s, it appears that metrics became a routinized tool for news production across the globe (Cherubini & Nielsen, 2016; Bunce, 2019; Nelson & Tandoc, 2019). Specifically, journalistic concerns about the impact of metrics on journalism have grown somewhat more muted, as metrics have become more solidly institutionalized and taken-for-granted in newsrooms.

The existing literature tells us relatively little about the concrete strategies that editors and journalists have implemented to reconcile their editorial ambitions and the economic constraints that come with operating in a highly competitive market, which journalists typically experience through the pressure of maximizing traffic numbers. In using the concepts of relational work and "good matches" to explain how journalists seek to bridge the gap between metrics and journalistic professionalism, this article builds on our past work, which has shown that journalists engage in meaning-making efforts to ease conflicts between editorial and click- based modes of evaluation (Christin, 2020), and that analytics companies purposely build ambiguity into their tools to facilitate this meaning-making process, as a means to gain journalists' trust and compliance (Petre, 2018).

3 Relational Processes and Successful Matches

This section explores the different kinds of relational processes that editors and journalists implement in order to reconcile the "hostile worlds" of journalistic professionalism and audience metrics maximization. We identify five main types of relational strategies: establishing moral boundaries between "good" and "bad" metrics; the strategic invocation of "best-case scenarios" involving high traffic numbers *and* editorial quality; domestication through bespoke technologies; reframing metrics as democratic feedback; and justifying high traffic metrics as organizational subsidies.

Before introducing these four relational strategies, we provide a brief overview of our data and methods. This analysis relies primarily on two ethnographic studies, conducted independently, of web newsrooms and their uses of web analytics between 2011 and 2015. Christin conducted 101 interviews with journalists, editors, community managers, and data specialists, as well as more than 500 hours of ethnographic observations in a total of eight web newsrooms located in New York and Paris (which included legacy news organizations as well as stand-alone news websites and web magazines). Petre conducted 76 interviews and ethnographic observation at three sites over a period of four years: Chartbeat, a web analytics company that specializes in making metrics tools for editorial use; *The New York Times*; and Gawker Media, then an independent, online-only media company that owned a network of popular blogs. In addition, the two authors monitored the industry and journalistic literature (including social media posts, trade publications, and industry research reports) on audience metrics and their uses in newsrooms from 2011 to 2020 — a pivotal period in the adoption of web analytics in online news production. For the purpose of this analysis, the authors reexamined their ethnographic material and secondary data, drawing on abductive methods (Timmermans & Tavory, 2012).

Based on this data, we identify five key relational processes that editors and journalists have deployed in order to render audience metrics acceptable and meaningful within web newsrooms. All but one of these five relational strategies involved efforts to establish symbolic distance between audience data and economic pressure, instead seeking to reposition (some) metrics as being highly compatible with journalistic professionalism. The fifth strategy, which justified focusing on traffic metrics because this could serve as a form of organizational subsidy, took a different tack. Rather than reframing metrics as non-market signals, this strategy acknowledged the connection between metrics and commercialism, yet normatively justified it using the language of journalistic professionalism. Each of these strategies represents a facet of what Zelizer identifies as "relational work," in the sense that editors and journalists worked hard to match metrics with specific sets of meanings and social relations.

3.1 Drawing Moral Boundaries Between Good and Bad Metrics

As mentioned above, the early period of metrics' introduction into newsrooms was marked by the notion that that traffic data and high-quality journalism were necessarily at odds — or, to borrow Zelizer's term, that they represented the "hostile worlds" of economic profit and journalistic professionalism. For example, David Carr (2014), the late *New York Times* media columnist, wrote that the growing prevalence of metrics in newsrooms was leading to the proliferation of informational "empty calories" like slideshows, quizzes, and listicles, concluding that "journalism's status as a profession is up for grabs." Contributing to this perception was the fact that one of the first metrics to take root in newsrooms, pageviews (sometimes referred to as "clicks"), had originated in the decisively profit-oriented field of online advertising. This cemented the discursive and conceptual connection between metrics and the profane world of money.

Relational work was thus needed to break the association between traffic data and professional degradation. Journalists, editors, and technology specialists achieved this goal by drawing clear moral and symbolic boundaries (Lamont & Molnár, 2002) between acceptable and unacceptable metrics. More precisely, actors in the field actively distinguished between "good" and "bad" metrics and their related uses. For instance, Chartbeat, a third-party analytics company launched in 2009, established such boundaries (and bolstered its business in the process) by making the case that *its* metrics were compatible with journalistic professionalism, while other metrics were not. Chartbeat's real-time analytics dashboard pointedly omitted pageviews; instead, it was centered around what the company called "engagement metrics," such as the amount of time audiences spent reading a particular article and the percentage of readers who read multiple articles on a news site (Petre, 2018). As Tony Haile (2014), Chartbeat's erstwhile CEO, put it in an article he wrote for TIME magazine, reorienting the news industry's focus away from measuring clicks and toward measuring readers' engagement would bring about a new "attention web" where "quality makes money." For journalists who saw metrics as an inevitable feature of the digital newsroom but fretted about their impact on journalistic content, the promise of engagement or attention metrics held a special appeal. Indeed, Chartbeat's self-branding around "engagement metrics" paid off handsomely for the startup, which gained hundreds news industry clients and tripled its revenue between 2014 and 2017 (Saroff, 2017).

This type of boundary-drawing was echoed within web newsrooms, where journalists and editors also established moral distinctions between different kinds of metrics. Most of them explained that pageviews and unique visitors were "dumb" metrics, whereas they saw other metrics as more meaningful. For instance, Upworthy, a digital media company whose mission was to spread "important" or uplifting content on social media, announced in 2014 a bespoke metric called "attention minutes": "We think adding attention minutes to the arsenal of metrics that publishers look at will accelerate the drive toward quality." Along similar lines, journalists we interviewed explained that they cared about the number of "retweets" that they got on Twitter, mentioning that Twitter was a "useful addition to their lives" and that "it meant a lot" whenever prestigious journalists in other newsrooms retweeted their articles, whereas they did not care much about the number of pageviews that their article attracted. Editors often reinforced this view by downplaying the meaningfulness of pageviews, explaining that readers and Facebook users often had "shitty" taste, but assigning deeper meaning to alternative measures, such as Twitter metrics and "most emailed" metrics.

Perhaps the most dramatic illustration of this tendency to draw boundaries between "good" and "bad" metrics is the trend towards so-called "impact metrics," which aim to apply the tracking affordances of digital content to measure outcomes more central to journalistic professionalism and journalists' civic mission. With a grant from the Columbia Journalism School, journalist-developers Michael Keller and Brian Abelson (2015) created a tool called "Newslynx," which was designed to aid in "tracking, categorizing, and assessing indicators of impact aside from audience reach," such as legislative reforms or community actions that might result from news stories. In a similar vein, journalism scholars have examined efforts by foundation-funded news organizations to track their impact and contributions to democracy (Konieczna & Powers, 2017; see also Tofel, 2013). While such efforts are commendable, it is worth noting that these alternative regimes of measurement have mainly been rolled out at nonprofit newsrooms that are, at least to some extent, shielded from the harsh realities of the commercial publishing market by foundation or university funding (but see Benson, 2017). This seems to indicate that, boundary-drawing efforts notwithstanding, most audience metrics *do* still retain a powerful tie to economic pressures.

The creation of moral boundaries between "good" and "bad" metrics evokes Zelizer's "relational work" in the sense that, like people making fine-grained distinctions between appropriate and less-appropriate forms of monetary transactions depending on the context (distinguishing for instance between cash and check whenever they pay a doctor), journalists and editors seek to carefully distinguish between metrics that are or are not appropriate to assess journalistic quality. In such a framework, "clicks" are seen as an inadequate metric, whereas time engaged, concurrent visitors, or impact metrics are described as more valuable.

3.2 Strategic Invocation of "Best-Case Scenarios"

In line with the disregard of editors for pageviews and the "shitty" taste of the audience, scholars have found evidence of a persistent gap between reader interest, as measured by traditional traffic metrics, and journalists' judgments of newsworthiness, as measured by the placement of stories on news websites (Boczkowski & Mitchelstein, 2013). This misalignment was an early driver of wariness toward metrics, as some journalists, particularly at more traditional legacy publications, feared that the take-up of metrics would force them to produce content about cats, celebrities, and other purportedly vapid topics.

To counter this narrative, proponents of newsroom analytics relied on a second relational strategy to make metrics acceptable within news organizations: in both internal and external communications, they highlighted instances of "best-case scenarios," where stories that met the traditional journalistic criteria for importance and newsworthiness *also* attracted high traffic. For instance, although the *Times* restricted reporters' access to metrics as a matter of newsroom policy for several years, editors would share select data points with reporters about stories they felt merited praise. A reporter who had worked extensively on a multi-story feature about the war in Afghanistan explained that her editor had gone out his way to show her traffic figures for the series: "[He] called me into his office and was like, 'Look how well this did!' " Similarly, at a New York web magazine, a managing editor explained:

> Hopefully everything we do is thoughtful. But long-form pieces can go places that a shorter piece can't. The most successful long-form piece we did was Emma's, she started covering that beat almost like a newspaper reporter would have, eventually she wrote a 10,000-word essay that then became a central element of her book. It was great for us: the readers were really interested in it, it was wildly successful in terms of traffic. That's the best-case scenario.

This kind of strategic invocation of carefully selected examples promoted the idea that metrics could actually reinforce the production of editorially ambitious journalism. Compare this with the comment of the homepage editor working for the same web magazine: "There are things that are enormously popular but that won't do for TAP 1 [the top of the website's homepage]. Like our advice column [a column that gives facetious advice about sex, relationships, and family life], it's very smart and fun, but it's not something that people need to read in order to become informed citizens of the world." The contrast between these two comments indicates that traffic numbers would take very different meanings and moral valence depending on the kinds of articles under consideration. In this kind of "best-case scenario," clicks were seen as meaningful because readers were truly "interested" in the long-form, highly researched story that Emma had put together. Whereas, in the case of the advice column, high traffic metrics were not seen as particularly meaningful: readers clicked because it was "fun" but these stories did not have enough editorial value to be promoted on top of the homepage.

In *The Social Meaning of Money*, Zelizer (1997) contests the idea that "a dollar is a dollar is a dollar," because people rely on "earmarking" and create different kinds of money for different relationships, situations, and contexts. For instance, people can distinguish between a gift and a bribe by adding a ribbon on a nicely written envelope. Similarly, this shows that a click does not necessarily equal another click: a pageview for one article can signify something entirely different than a pageview for another, even though the metric is the same. Thus, journalists and editors "earmarked" metrics in the same way that people can earmark money.

Interestingly, the "best-case scenarios" invoked above, in which articles achieve both high traffic *and* brand-boosting prestige, have analogues in other fields of cultural production. In the fashion industry, for example, most models pursue either high-paying but "cheesy" commercial work in catalogues and showrooms, or low-paying, prestigious jobs in fashion magazines. Only a lucky few hit what Mears (2011b) calls the "occupational jackpot": lucrative and prestigious advertising campaigns for luxury fashion brands. In journalism, stories that are successful both in terms of economic capital and cultural capital are similarly rare. But editors tout these "jackpot" examples to assert that there is no inherent tension between traffic and editorial values.

3.3 Domestication Through Bespoke Technologies

The third relational strategy we identify is the domestication of metrics through in-house technologies. As noted above, third-party analytics tools like Chartbeat and Google Analytics have become fixtures in all manner of newsrooms around the world. But a select group of well-resourced news organizations with high cultural capital went a step further: in addition to subscribing to a range of third-party tools, they also tasked in-house teams with developing homegrown analytics products. For example, in 2012, the *Guardian* rolled out Ophan, its bespoke real-time analytics tool; the *Times* followed suit in 2016 with a tool called Stela.

Neither tool was unprecedented in terms of technological features: both display many of the metrics common to third-party tools, such as page views, social shares, and time spent reading. As one news article on Ophan noted, "It's a bit like Chartbeat or Parse.ly, or many other analytics platforms at its core" (Woods, 2015). Yet the fact that Ophan and Stela were created specifically by and for staffers at each news organization helped to domesticate metrics within these newsrooms, rendering them less threatening to journalists' professional self-understanding than otherwise similar third-party tools. Each tool was developed after an extended period of consultation and user-testing with journalists in the newsroom. This process served not only as a way to facilitate a journalist-friendly user-experience, but also to pre-empt the feelings of resentment and alienation that the implementation of metrics could provoke among writers.

For instance, the *Guardian* emphasized that all members of the team that built Ophan had editorial backgrounds, and none were data scientists (Cherubini & Nielsen, 2016). In a promotional post about the tool, the *Guardian*'s communications department wrote that all of Ophan's features were "tied to a genuine need in the newsroom," which ensured that the tool "offered a vision of how data could be integrated meaningfully into editorial action, supporting journalists and journalism rather than threatening it" (Guardian Comms, 2015). Explicitly contrasting Ophan to third-party analytics tools, the *Guardian* touted it as "a peerless example of disruptive technology emerging *from within* a legacy newsroom" [emphasis added]. For its part, Stela was designed not only to make metrics easier to digest for *Times* journalists, but also to "match the look and feel of the Times brand" by employing the paper's signature typeface (Wang, 2016).

For traditional news organizations seeking to develop a "culture of data" (Cherubini & Nielsen, 2016), the symbolic potency of homegrown analytics tools helped to do the work of building social trust in metrics. Here we argue that the development of in-house analytics programs serves as a ritual strategy to reassure journalists that market forces in the guise of metrics have been "tamed" and adapted to fit the local newsroom culture, even though the actual dashboards provided by such bespoke technologies may not differ significantly from off-the- shelf tools.

Such a domestication process in turn is a form of relational work because of the carefully crafted meanings and forms of newsroom "buy-in" typically associated with in-house analytics. Here one could compare in-house metrics with the use of "special monies" or tokens in bounded social communities — for instance campuses, prisons, or churches. By relying on alternative monies that are not the legal tender, communities usually seek to control the meanings associated with commercial exchange (Zelizer, 1994). Similarly, by developing in-house analytics, newsrooms with clear organizational boundaries try to control the narrative of how metrics relate to professional norms among their employees.

3.4 Reframing Metrics as Democratic Feedback

The fourth relational strategy emphasizes the connection between audience metrics and the journalistic mission to serve a democratic public. In this reframing, metrics are a valuable, albeit imperfect, representation of that public's informational needs and desires. This line of argument points out that journalism is a non-insular profession — one that seeks, above all else, to communicate with an audience. This echoes earlier wishes publicized by peer-production advocates, who saw in the internet a unique opportunity to redefine the respective roles of writers and readers in the "networked public sphere" (Benkler, 2006). As journalism blogger Jay Rosen (2006) wrote: "The people formerly known as the audience are simply *the public* made realer, less fictional, more able, less predictable. You should welcome that, media people." Journalism scholars have argued that this "heteronomy" of the journalistic field in turn may be its key characteristic (Schudson, 2005; see also Ananny, 2018): the press is often labelled the "fourth power" of democracies because it interacts with and informs a broadly defined public sphere (Habermas, 1962/1989). Such a perspective in turn complicates the connection between metrics and markets by adding a link between metrics and publics (Anderson, 2011a). As journalism scholar Nikki Usher (2010) argued: "If used properly, SEO and audience tracking make newsrooms more accountable to their readers without dictating bad content decisions — and it can help newsrooms focus on reader needs. What is a story if it is never read?"

Unsurprisingly, this democratic and public-driven framing was often invoked by web editors and journalists throughout the 2010s whenever they talked about audience metrics. Throughout our fieldnotes and interviews, journalists explained that they wanted their articles to be read. The discourses of top editors and managers in news organizations sometimes explicitly echoed these individual discourses. For instance, *The New York Times*'s 2014 internal "Innovation" report, which chronicled the paper's challenges adapting to the digital age and proposed a series of remedies, employed a similar framing (Benton, 2014). The report's authors — all of whom were *Times* staffers — acknowledged that the traditional "wall" between the advertising and editorial sides of the organizations should remain intact. Yet they argued that other groups of business-side staffers, such as those focused on metrics-driven "consumer insight," could productively work with *Times* journalists. Such collaborations would not threaten the *Times*'s journalism, the report contended, because the two groups had a "shared mission" of serving *Times* readers.

For news organizations, traffic numbers necessarily represent two things at once: market forces, obviously, since a website's number of unique visitors or pageviews correlates with advertising revenues and subscriptions, but also journalistic impact on a broadly defined public. To the extent that metrics can be framed as facilitating the fine-tuning of that communication, they are rendered more compatible with journalistic professionalism. This multi-faceted aspect of audience metrics clearly echoes Zelizer's argument, contra Simmel, that money is not a standardizing force but instead can take a variety of "social meanings" depending on the context (Zelizer, 1994). When journalists emphasize the democratic aspect of audience metrics, they make the symbolic complexity of metrics explicit, disconnecting them — temporarily — from purely commercial imperatives.

3.5 Justifying Metrics as Organizational Subsidies

All the strategies analyzed above seek to sever (or at least weaken) the perceived connection between metrics and market forces, instead positioning metrics as highly compatible with journalistic professionalism. Yet this argument was not always the easiest to make. Indeed, the lists of "most-viewed" and "most-shared" articles that became ubiquitous on news websites throughout the aughts showed unmistakably that there was a substantial "gap" between the type of content favored by audiences and that which journalists considered most newsworthy (Boczkowski & Mitchelstein, 2013). Although there is some evidence to support the claim that prioritizing "good" metrics, such as engaged time, could bring these two categories of content into closer alignment, the gap persisted.

The fifth relational strategy we identify reflects this reality. While the other kinds of relational work all sought to downplay the tension between metrics and journalistic professionalism or even deny its existence, the fifth strategy instead *acknowledges* the tension and seeks to provide a normative justification for it. In this view, traffic metrics are professionally justifiable because they serve as organizational subsidies: the often frivolous content rewarded by most metrics can underwrite a site's production of the kind of news that journalists considered more serious and worthwhile. This was made clear by Jill Abramson, executive editor of the *Times* from 2011–2014: "In my years [as executive editor], I used to laugh that everything you agreed to in terms of lighter or more advertising-friendly content would be because we needed that advertising revenue to support the Baghdad Bureau" (Snyder, 2017). Similarly, AJ Daulerio (2012), then the editor of *Gawker.com*, launched an experiment: each day, a different *Gawker* writer would be the site's designated "traffic whore," whose sole job would be to "offer up the posts they feel would garner the most traffic." This rotating duty would then allow the rest of the staff to "spend time on more substantive stories they may have neglected" in their attempts to "hit some imaginary [traffic] quota." In these cases, editors and journalists presented metrics within a broader framework of cross-subsidization within the news organization: they argued that, by producing some quantity of low-quality editorial content attracting high traffic numbers, the websites would be able to "afford" high-quality editorial content that may not necessarily be popular online.

Of course, these cross-subsidization dynamics are not new in journalism. In fact, there are many historical precedents for the framing of popular content as a subsidy for more prestigious forms of journalism: the "bundling" of print newspapers meant that ads placed in some sections furnished the budget for less advertising-friendly ones such as international news. For instance, the *New York Times* launched its Home, Garden, and Living sections in the 1970s for expressly this purpose. A 2017 *Times* internal report drew on this historical parallel in arguing for an expansion of the paper's digital service journalism, which would include meditation guides and cooking tips:

> In all likelihood, we will need a modern version of the 1970s features expansion: devoting newsroom resources to new areas, primarily to attract subscribers and engage new readers (which in turn will attract advertisers). There would be nothing wrong or new about doing so. The success of the 1970s features strategy helped The Times afford great investigative journalism and foreign correspondents stationed around the world. The 1970s features sections also produced troves of wonderful journalism on their own (*The New York Times*, 2017).

By drawing a connection between the *Times*'s contemporary digital strategy and the Watergate era, widely considered a professional high point for U.S. journalism, the report's authors sought to reassure their colleagues: while digital formats and metrics were new, they did not need to be seen as threatening, because producing popular content as a subsidy for "important" content has been a long-established and professionally acceptable approach at the *Times*.

Such a justificatory move in turn is slightly different from most of the earmarking and relational strategies analyzed by Zelizer in the case of monetary transactions. Here, editors and journalists claim to take a "realist" (one could say cynical) approach, arguing that metrics clearly exemplify commercial pressures, and, relatedly, that journalism is a business. In Zelizer's vocabulary, such an approach could fall under the "nothing but markets" perspective, according to which all social relations involving monetary transactions are in fact exchanges on competitive markets (Zelizer, 2010). In this view, maximizing traffic numbers is a key — perhaps the only — solution for enabling news organizations to publish quality journalism online.

Thus far we have argued that, whereas the initial introduction of metrics into newsrooms provoked anxiety and skepticism insofar as the data represented a breach of the "wall" between the business and editorial sides of commercial news organizations (Coddington, 2015; Nelson & Tandoc, 2019), several relational strategies emerged throughout the 2010s to reconcile journalists with metrics. Analytics firms, news executives, and journalists performed relational work in an attempt to reframe metrics as compatible with journalistic professionalism. Yet such "good matches" between metrics and "quality" journalism often proved fragile. Over the past decade, several instances have arisen in which circuits broke down due to failed relational strategies or because relational work was absent altogether. In the next section we examine one such process, which we call overspelling, showing how it could lead to organizational breakdown.

4 Failure: The Consequences of Overspelling

The process that we analyze as "overspelling" occurred when the association between metrics and money went from being implicit to being explicit. In this respect, overspelling bore some resemblance to the organizational subsidy strategy discussed above, but with a crucial difference: in cases of overspelling, metrics were not normatively justified as facilitating the production of high-quality journalism. Instead, overspelling occurred when the profit-generating potential of journalists' activities was plainly spelled out and incentivized through metrics for its own sake. Overspelling could succeed in boosting traffic in the short-term, as reporters scrambled to meet traffic targets by any means necessary. But it could also backfire. Whereas successful matching strategies enabled journalists to incorporate metrics into their editorial work without injuring their self-conception as autonomous professionals, overspelling could contribute to low morale, staff defection, and, in extreme cases, complete organizational collapse. Here we examine two cases of overspelling: one in New York, the other in Paris.

4.1 Gawker Media

In 2019, the private equity firm Great Hill Partners purchased the Gizmodo Media Group (formerly Gawker Media) from Univision for an undisclosed sum and renamed it G/O Media. During its years as an independent media company, Gawker Media's founder and owner Nick Denton had been famously fixated on traffic, so the company's longtime editorial staffers were accustomed to having their job performance evaluated in part based on metrics. However, despite Gawker Media's reputation as heavily metrics-focused, editorial leaders at the company's websites had consistently engaged in relational work (including moral boundary-drawing and reframing traffic as an organizational subsidy) to establish matches between metrics and traditional conceptions of journalistic value.

By contrast, the executives installed by Great Hill Partners showed little interest in performing relational matching work. Rather than emphasizing "good" metrics like time spent reading, Jim Spanfeller, the Great Hill-appointed CEO, focused on pageviews, telling G/O Media's editorial leadership early in his tenure that he expected them to quadruple the metric (Greenwell, 2019). The tension came to a head when Great Hill leadership instructed *Deadspin*, G/O Media's site that focused mainly on sports but also covered politics and culture, to tone down its irreverent point of view and limit its coverage to traditional sports stories. These changes were recommended on the logic that they would make the site more broadly appealing and thus result in the kind of rapid traffic growth Great Hill Partners sought.

Several *Deadspin* editorial staffers chafed at the proposed changes in coverage and the new pageview growth target, seeing these demands as evidence that Great Hill Partners was looking for a "quick cash out" at the expense of the distinctive style they believed had made Gawker Media sites valuable to begin with, both financially and journalistically (Greenwell, 2019; Petchesky, 2019). In a post she wrote after submitting her resignation, Megan Greenwell (2019), *Deadspin*'s executive editor, wrote that Spanfeller "believed he could simply turn up the traffic (and thus turn a profit), as if adjusting a faucet, not by investing in quality journalism but by tricking people into clicking on more pages." Greenwell's replacement, Barry Petchesky, was quickly himself fired for resisting Great Hill's approach. In a *New York Times* op-ed, Petchesky leveled a similar critique: "The new owners come in, slash staff and costs and turn a once-proud publication into a content mill churning out bland and unimportant stories that no one wants or needs to read... Everything you liked about the web will be replaced with what the largest number of people like, or at least tolerate enough to click on and sit through three seconds of an autoplay ad" (Petchesky, 2019). Within days of Petchesky's firing, *Deadspin*'s entire editorial staff had quit the site in solidarity.

It is important to emphasize again that, as former Gawker Media staffers, *Deadspin*'s writers and editors were not hostile to the idea of using metrics to inform editorial decision-making. In fact, both Greenwell and Petchesky pointed out that *Deadspin* covered topics that were not strictly sports-related in part *because* these stories performed well in terms of traffic. But Great Hill Partners made the relationship between content and traffic seem too explicitly transactional. In dispensing with relational strategies that had made it possible for writers to reconcile their professional identities with traffic-boosting activities, the firm alienated the editorial staff. In an ironic turn of events, *Deadspin*'s traffic plummeted soon after the staff's departure, providing a vivid illustration of how attempts to boost traffic without performing relational work can backfire spectacularly.

4.2 LaPlace

In Paris, a web magazine we call *LaPlace* (the name was anonymized) started in 2007 as an independent website and was bought in 2011 by a larger media group. Responding to the repeated requests from the new parent company to attract more traffic, *LaPlace*'s top editors sent an email to the staff, entitled "the battle for the audience," in December 2012. In it, they asked staff writers to do their part in bringing more traffic to the website:

> What is at stake today is the role of *LaPlace* as an independent site, in the context of a brutal acceleration of the commercial crisis that touches all the media. (...) We need to realize that growing our audience is vital in this context of crisis. Reaching this goal depends on the behavior and mobilization of each and every one of us (...). Many recent examples show that we have much to gain from being more reactive

> and covering hot news right when it occurs. This is important for the editorial line of the website and in order to win the battle for the audience.[2]

A follow-up email specified that writers would be explicitly evaluated based on traffic from then on:

> You will all be scheduled for individual meetings. We will talk about our goals and see where we stand. (…) The programmers are working on a program that we will use to track these objectives. Every month, the machine (*sic*) will send you a summary of your publications, as well as the total number of articles on the website. The email will also include figures about the evolution of the number of visitors.

Unsurprisingly, *LaPlace*'s staff reacted negatively to these expectations. The staffers drafted a collective email to the management, in which they criticized the top editors' "obsession" with "quantitative goals":

> We received your email entitled "The battle for the audience." We want to be part of this battle. Our work, our team, and the survival of our site depend on it. But your note distressed and surprised us. (…) We refuse to follow quantitative goals regarding our production (number of posts, number of bloggers, etc.). If we have to define goals, we want to talk about it with you and define together the relevant criteria and some realistic objectives. We ask you not to send individual emails with quantitative measurements of each journalist's production. (…) We need to know your editorial goals in qualitative and not quantitative terms for 2013. (…) We have concrete propositions at the editorial level and also regarding traffic numbers. We are available to discuss them with you. We believe that the editorial risk is too high right now. We are being evaluated based on clicks, which mirrors a loss of identity (of the website). This obsession (with metrics) is not only demoralizing; it is also counterproductive.

The staff writers countered with a different picture of *LaPlace*'s role. As they wrote in their response, "*LaPlace* (is) an independent website which invents, innovates, creates, entices, amuses, instructs, inspires, refuses to comply, and bears responsibility for its choices. We need a young, innovative, independent, and different media, now more than ever." Following this conflict between the management and the journalists, most of the staffers left the publication. The newsroom, which had fifteen full-time journalists in 2014, only had four full-time staffers in 2018. Over time, it became a simple "vertical" in the website of its parent company.

In both of these cases, managers engaged in what we call "overspelling." That is, they made explicit the connection between metrics and market pressures when incentivizing journalists to maximize traffic numbers in their daily output. But at both *Deadspin* and *LaPlace*, the strategy backfired, as journalists reacted against this overt commercial assessment of their editorial work. At *Deadspin*, the new managers bluntly and abruptly implemented the new pay-for-performance policy, exhibiting a striking disregard for how the change would be interpreted and accepted by the editorial team. In this case, it appears that the failed match was really a missing one, in the sense that there was no attempt at relational work on the part of the managers to make metrics seem less directly connected to market pressures. The stark and sudden

2. The translation from French is ours.

nature of the change provoked a strong reaction on the part of the staffers, who resigned en masse.

In contrast, at *LaPlace*, the "battle for the audience" email can be read as a discursive attempt to maintain continuity rather than announcing itself as a dramatic break with the organization's past. The email was sent by the site's original founders, who remained in the newsroom as editor-in-chief and president after the sale. In the ensuing backlash, they claimed — perhaps disingenuously — that the email was only intended to make explicit informal norms that already existed in the newsroom. Thus, in this case, there was at least a nominal *effort* towards relational work, but one that failed to forestall newsroom dissent. These two examples give a sense of what "bad matches" look like, and how they can take a variety of forms (Bandelj, 2020, p. 263–265).

5 Discussion

Existing work on quantification often emphasizes the clear meanings and lack of ambiguity of numbers, which plays an important role in their diffusion over time. Numbers travel well through time and space, scholars explain, because they typically erase complex contextual features that are hard to translate (Espeland & Stevens, 1998). In the words of historian Sarah Igo, numbers tend to carry a great deal of weight because they are "spare, clear, and direct" (Igo, 2008, p. 247).

Yet our findings complicate the idea that numbers are always "spare, clear, and direct" — or at least, that their meanings are always interpreted that way. We argue that the connection between metrics and market forces is not a mechanical one. This is particularly clear in the case of web newsrooms, where metrics have an ambiguous relationship with market pressures. On the one hand, traffic numbers obviously correlate with economic revenues in a competitive online news market where monetization comes from advertising (itself based on traffic) and, for paywalled sites, subscriptions. Individual journalists in turn depend on the financial well-being of their organizations to ensure their career and monetary prospects. On the other hand, audience metrics are contested symbolic objects, in the sense that they also relate to the public mission of journalism, which is to share content with a broadly defined public.

Given this structural ambiguity of audience data, we find that many relational strategies used in web newsrooms to make peace with metrics work by establishing an added distance and playing up the indirectness of the relationship between metrics and market pressure. Put another way, the relational strategies we identify seek to bring metrics closer to the side of editorial values — or somewhere else altogether. First, when relying on moral boundaries between "good" and "bad" metrics, editors and journalists emphasized that "good" metrics such as time engaged were not as closely related to economic incentives as "bad" metrics such as pageviews. Second, the strategic invocation of "best-case scenarios" involving high traffic and high editorial value implicitly criticized a "clicks for clicks' sake" approach, arguing instead that metrics could only be meaningful when they correlated with highly newsworthy content. Third, prestigious publications like the *Times* and the *Guardian* domesticated analytics by developing in-house tools that carried the imprimatur of the editorial brand. Fourth, reframing metrics as democratic feedback further obfuscated the connection between metrics and market pressures, since editors and journalists explicitly relied on non-market metaphors (e.g., describing metrics as a signal of relevance in the public sphere) to put in place an added layer between metrics and markets.

By contrast, the last two strategies we analyzed maintained a strong connection between metrics and economic pressure. High audience metrics were sometimes justified as a form of organizational subsidy enabling the production of high-quality journalism. In such cases, editors emphasized the economic value of metrics but put it at the service of professional values — namely, "paying" for ambitious editorial projects. Similarly, the cases of overspelling we discussed explicitly highlighted the relationship between metrics and economic pressure. Both G/O Media and *LaPlace* had recently been acquired by larger companies, which were counting on high and rapidly growing traffic numbers from their new acquisitions. The managers of the parent companies did not have any strong emotional attachment to the editorial project and journalistic team of the two publications; they were also larger companies, with a diverse portfolio, and probably had little attention and resources to devote to the relatively small editorial teams of *Deadspin* and *LaPlace*. At *Deadspin*, virtually no effort was made to package and align their message to make it fit the editorial culture of the newsroom and organizational collapse resulted; at *LaPlace*, the original founders' "Battle for the Audience" email vaguely attempted to convey continuity under the site's new owners, but ultimately failed to do so. What occurred at *Deadspin* and *LaPlace* highlights the importance of relational strategies that match metrics with conceptions of journalistic integrity in a way that is persuasive to rank-and-file newsroom staffers: when such strategies are absent or when they fail, the consequence can be organizational implosion — and with it, dramatically lower traffic.

The different relational strategies analyzed above also raise the question of which groups rely on relational work within news organizations. As we mentioned above, Zelizer primarily examined cases of relational work taking place within close interconnected social circles (families, intimate partners, college students, and so on). Interestingly, within news organizations, we found that relational work was hierarchically stratified: editors and top managers were primarily in charge of the relational efforts that were needed to make audience metrics acceptable and non-threatening to journalists and staff writers. This specific role of editors as "bridges" between commercial and editorial concerns in turn stems from the early structure of news organizations in the United States, specifically the creation of a "wall" between editorial and marketing departments that only top editors are allowed to cross (Gans, 1979).

More broadly, one can ask about the generalizability of the relational strategies we identified. As discussed in the literature review, the Zelizerian framework focuses primarily on monetary transactions. Money does not have the same indirectness as audience metrics: money necessarily relates to economic transactions. Yet when people rely instead on earmarking, bringing "special monies" closer to the social end of the spectrum, they create the same kinds of layers and indirectness identified here (Zelizer, 1994). Does relational work systematically end up distancing metrics (including money) from the economic realm? Does its success always depend on how much distance can be created between metrics and markets? Future research should explore these questions by studying the relational strategies surrounding other types of metrics, online and offline, from fitness tracking metrics to financial indicators and productivity rankings.

6 Conclusion

Drawing on Viviana Zelizer's framework, this article analyzed how web editors and journalists made peace with audience metrics over the course of the 2010s. We identified five types of relational strategies that were used across web newsrooms in the United States and France: the creation of moral boundaries between "good" and "bad" metrics; the strategic invocation of metrics through "best-case scenarios" involving high traffic numbers that aligned with editorial value; the domestication of analytics through the construction of in-house technological tools; the reframing of metrics as democratic feedback; and the justification of traffic metrics as organizational subsidies. We showed that these relational processes served either to *obscure* the connection between metrics and money (as in the case of delineation and domestication), or to *justify* it (as with framing the pursuit of online traffic as subsidizing high-quality content). When effective, this relational work provided a framework that enabled journalists to accept the presence of metrics without sacrificing their sense of professional self-regard, thus facilitating the institutionalization of traffic data in newsrooms.

Yet not all newsrooms were successful in routinizing metrics and making peace with them. In the second part of the article, we turned to cases of failure that involved overspelling, typically through the creation of pay-for-performance programs where journalistic compensation and promotion were explicitly tied to individual metrics. We examined two cases where overspelling coincided with organizational breakdown: in one case because all the staffers quit the organization, in the other because the staff slowly hemorrhaged as the publication was absorbed into the maws of its new parent company. Based on these cases of failure, we discussed the role of relational work in distancing metrics from market pressures.

Following this first application of the Zelizerian framework to make sense of the uses of audience metrics in online news production, we hope that future studies will further expand on the analysis presented here. First, more work is needed on cases of "bad matches" and their structural determinants (Bandelj, 2020). Our analysis suggests that the outcome of relational work is shaped by broader institutional factors — for instance, changes in media ownership structures and hierarchical dynamics within news organizations. Future research should further examine which structural characteristics shape how relational strategies are used and whether they succeed or fail. Second, we hope that scholars will apply the (e)valuation approach in economic sociology to analyze the growing role of digital technologies of quantification, at work and elsewhere. Indeed, as market pressures and economic forces become increasingly mediated through digital metrics of all sorts, further research is needed that marries the analytic attention of economic sociologists to the structural and cultural foundations of market dynamics and the careful focus of ethnographers to the material and infrastructural details of digital technologies, which together constitute the daily manifestations of twenty-first-century capitalism.

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Angèle Christin: Department of Communication, Stanford University (United States)
https://orcid.org/0000-0002-7437-2013
angelec@stanford.edu; http://www.angelechristin.com
Angèle Christin is an Assistant Professor in the Department of Communication at Stanford University. She studies how algorithms and analytics transform professional values, expertise, and work practices. Her book *Metrics at Work: Journalism and the Contested Meaning of Algorithms* (Princeton University Press, June 2020) focuses on the case of web journalism, analyzing the growing importance of audience data in web newsrooms in the U.S. and France. She is currently a Visiting Researcher with the Social Media Collective at Microsoft Research New England.

Caitlin Petre: School of Communication and Information, Rutgers University, Brunswick, NJ (United States)
https://orcid.org/0000-0001-7846-9659
https://comminfo.rutgers.edu/petre-caitlin
Caitlin Petre is an Assistant Professor of Journalism and Media Studies at the Rutgers University. She examines the social and material implications of an increasingly data-saturated world, with particular attention to the relationship between digital technologies, knowledge work, and media industries. Using field research methods, she analyzes how new sources of quantitative data interact with long-established approaches to cultural production and the management of media workers.