Knowing the Audience in the Information Age: Big Data and Social Media in the US Television Industry

by

Annemarie Navar-Gill

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Doctoral Committee:

Associate Professor Megan Sapnar Ankerson, Chair Associate Professor Daniel Herbert Professor Amanda D. Lotz, Queensland University of Technology Associate Professor Aswin Punathambekar Annemarie Navar-Gill

amngill@umich.edu

ORCID iD: 0000-0002-6673-5320

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Dedication

For JZ, who gave me the courage to speak that I wanted to leap instead of settling for a gilded cage. Our paths split long ago; despite it all, I remain forever grateful.

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Table of Contents

Dedication	ii
Acknowledgements	iii
Abstract	7
Chapter 1 Introduction: Algorithmic Culture and Hollywood Production	9
Chapter 2 Ad-Supported TV's Currency Crisis and the Promise of Big Data	32
Chapter 3 Storytelling Between Art, Audience, and Algorithm	70
Chapter 4 Fuel, Followers, and Fandom: Making Sense of Television as Digital Culture on	
Social Media	118
Chapter 5 Conclusion: The Contemporary Texture of Audience Knowability	150
Bibliography	157

Abstract

In the American television industry, knowledge about the audience is a structuring factor that essentially all operations are organized around. For the majority of American television's history, the Nielsen ratings—which offered insights into viewership numbers and demographics using principles of inferential statistics—were the dominant audience information regime that determined everything from the viability of creative projects to relations between advertisers and networks. In the digital age, however, thanks to social media and big data technologies, the volume, velocity, and dimensionality of the audience information available to this industry has increased exponentially and at a rapid pace. Although little about how to use them is fully settled, these new forms of advanced audience information have been transformative in industry operations. This dissertation explores and interrogates the ways these new forms of audience information are reshaping practices and expectations across a range of industry sectors, along the way altering industry professionals' perceptions of their jobs and identities, shifting economic arrangements and partnerships, and requiring new categories of labor to manage the incoming information.

Based on industry fieldwork and interviews conducted in 2017 alongside a longer-ranging analysis of trade press (2010-2018), the project takes a deep dive into different industry sectors—business operations, creative production, and social media promotion/engagement—to show how each sector is reconfiguring itself in light of the new types audience information available to it. With so much information and multiple technological paths to reaching it, each sector and firm is free to construct the audience in the way that best serves their interests, a move

that has destabilized industrial common sense around notions of audience, and which makes sense in the context of an algorithmic culture with an orientation towards personalization. In offering an empirical account of people's experiences dealing with these technologies in this field of cultural production, it also demonstrates that the mixture of "algorithms" and "culture" is not a top down process of imposing rationalization and datafication, but one where humans have agency and must find ways to make algorithmic technologies fit into existing cultural milieus. Although much about how to use advanced audience information is still evolving, the processes of making sense of it documented here show how a major "legacy" commercial media industry is navigating the transformations of contemporary algorithmic culture.

Chapter 1 Introduction: Algorithmic Culture and Hollywood Production

In the spring of 2011, I had recently finished my second season as the writers' assistant on *Gossip Girl*, the CW drama about the oh-so-dramatic lives of ultra-privileged Manhattan teens. I had also just received some enormous news. Apparently, my "dues" were all paid up, and it was time for my big break. In the show's upcoming fifth season, I would get to write an episode. My longtime dream was coming true: I was about to be a television writer. And then, one Monday night, just after our latest episode had aired, a total stranger hopped into my mentions and completely derailed my life:

"@annienavar: Do you have children? If a guy did the things Chuck does to Blair to your child, would it still be ok? #abuseisnotromantic"

I was just a regular twenty-something whose 25 followers were all people I knew in real life that didn't actually use Twitter, and I conceptualized the platform as a place I could post random self-deprecating musings I wanted to express without anyone actually seeing them. In my current position on *Gossip Girl*, my name didn't actually even appear in the credits. A stranger had never tweeted at me before. But that night, the anger kept rolling in. The episode had depicted an act of domestic violence in the relationship of the show's most popular couple, and many viewers thought that this was an irresponsible normalizing of unhealthy relationship behaviors for a series that was so popular with young women.

I wanted to respond and defend myself. Writers' assistants are a fraught hybrid of apprentice and secretary—as you take notes, you're supposed to be honing your room "participation" skills, but your capital for offering pitches and especially critiques is limited.

Even all these years later, I still feel a certain obligation to the writers' room "cone of silence," so I'll leave out the details of how the plot came to be, but I will tell you that I had *spent big* with my objections to this particular storyline. I was on the side of the people who were berating me on social media. Professional obligation prevented me from saying so, and I was haunted by it.

In the weeks and months that followed, I tried to convince myself that everything was fine, that I was on a path, that it was going well, that I should stay the course. And I stayed with *Gossip Girl* until the end, writing for both of the last two seasons. I went through the motions of everything you're supposed to do as a budding TV writer. I signed with an agent and a manager. I got my WGA card. I made many, many regretful purchases of designer clothing. But the truth was that I was never quite the same after that night. The Twitter fans had gotten in my head, and they weren't leaving.

So I started leading a secret life on the side. In my free time, instead of writing the pilot I was supposed to send out next staffing season, I read media studies books. One Sunday morning, I got up at 6AM to take the GRE. I did not particularly know what academia was, or any of the things that you were actually supposed to do if you were interested in becoming part of it, but I had questions, and something told me that this was how to answer them. Somehow, I fumbled my way in the door, and before I knew it, I found myself across the country pursuing a PhD at the University of Michigan, huddled under a stack of blankets during the Polar Vortex, missing my beachside apartment but not my Hollywood life. Eight years later, that stranger's tweet has metastasized into this document.

Even before that fateful night, social and internet technologies, broadly defined, had played a substantial role in my Hollywood career. I worked in television from 2007-2012, spending a season each at *Smallville* and *Grey's Anatomy* before landing at *Gossip Girl* for the

latter two-thirds of its run on The CW network. Textually, *Gossip Girl*'s entire premise focuses on how young people interact with internet and mobile technology. @GGWriters, which was as far as I can tell the very first of the now common practice of having a writers' room Twitter account to connect with fans, was my idea. When my boss and I started it in mid-2009, no one even thought to mention it to Warner Brothers or The CW, or even to ask Twitter for a "verified" checkmark. We took a grainy photo of our office sign with the camera on my *Blackberry* and started posting about what we'd ordered for lunch that day. Twitter was about two years old at this point, and Facebook had been around even a few more than that, but we had very little sense of what social media was meant for in general and certainly no anticipation whatsoever of what it was going to mean for television. We just thought this might be fun?

Beyond my "invention" of the writers' room Twitter, I often found myself talking about how social media might figure into our work. I was (very much) the "young person" in the writers' room, which meant I was frequently the translator for new platforms and practices. As writers' assistant, I was expected to keep up with the pulse of what was being talked about online to provide a layer of insulation between the writers' creative processes and the ever-increasing flood of fan feedback online. Even the fact that *Gossip Girl* got renewed year after year, despite our atrocious Nielsen ratings, was sometimes explained by the fact that we had high "engagement," a buzzword that no one could quite define, but that meant something about what "people on the internet" were doing. Technology, changing practices, and what it all meant for the future of our careers were a constant topic of conversation in every workplace and at every industry networking event I ever attended.

The ad hoc environment where we didn't bother to ask permission was starting to fall away by the time I left television. Just before the final season of *Gossip Girl*, the network caught

on that we'd been tweeting insider info to our thousands of followers for years without letting anyone know (and that my boss had recently started fighting with people over their negative tweets). I wasn't privy to the conversation that followed, and at that point control of the account was taken away from me. My understanding is that officially, they were displeased, and they made some rules about what could and couldn't be posted. But it wasn't lost on me that the following year, every other writers' room at The CW started a Twitter account too.

In the years after I left Hollywood and headed to grad school, the importance of social technologies—both in people's lives and in the US television industry—only grew. The forces that had brought such painful awareness of real people watching and reacting to television into my bedroom uninvited that night, leaving me shell-shocked, were now just an all-day, everyday part of the job. And social media was only one of the technologies that was dramatically changing the way American television professionals in all parts of the business experienced the people on the other side of the screen. By the time I started this project in 2016, vast databases recorded and stored every channel change and remote click from the set-top box. Analytics firms claimed their machine learning algorithms could tell networks what the audience was feeling on a minute-to-minute basis. Smart TVs used content recognition software to follow audiences across screens and platforms, thus inferring the outcome of promotional spots. And Netflix, which was still a relatively new player on the scene back in 2012, now sucked up 37% of North American internet traffic with its data-driven strategies for identifying and recommending content to the micro-audiences it called "taste communities." For an industry that had long known the audience primarily through the abstract and relatively simple information regime of ratings and demographics, these vast quantities and diverse types of information were a major change.

I have a distinct memory of a particularly dull day in the Smallville writers' offices during the WGA strike in 2007—with production in Vancouver and our bosses on the picket lines, there was absolutely nothing for the support staff to do, but they didn't want anyone to lose their livelihood, so we came into the office anyway, occasionally taking turns to go and join them. On this afternoon, I was wandering the halls, desperately trying to find inspiration for something, anything to do, a closet to organize, a script to read, whatever, and I picked up a binder I hadn't ever looked at before from the shelf of resources outside the door to the writers' room. It was labeled "Ratings." Inside, there were sheets of paper with the season's Nielsen overnights, dutifully printed out and filed by the writers' production assistant, the most relevant lines highlighted in blue. 4.2. 18-49. HH. 14.0. 8/13.3. It basically looked like number salad. To be clear, I absolutely knew how to interpret Nielsen ratings. I knew what a ratings point was, knew what share meant, knew why the particular and limited demographic information on those pages was there. I knew that they were important as a way of representing television programming performance to advertisers. I especially knew their relationship to network renewal and cancellation decisions. But I remember flipping through that binder, looking at that number salad and thinking—this tells me *nothing*.

This was certainly the unnuanced, inexperienced thought of a 19-year-old who hadn't given much thought to how the business aspects of television might come to circumscribe my creative ambitions. But considering both this rather nondescript experience of audience and those far more vivid ones from later in my career, I think, begins to illustrate several significant points. First, that what information television industry professionals are able to access about their audience can matter very much to how they understand themselves and their profession. And, that during a period in the early 2010s, the volume, velocity, and level of detail in that

information changed immensely, at a pace faster than the American television industry was able to settle on new practices and procedures for dealing with it.

This project is the story, or at least a story—it is by necessity of documenting a complex moment of change in a complex industry, a partial account—from that time of uncertainty. Where once the American television industry accessed "audience" through a limited set of means—the ratings, audience research, that evanescent insight known as "gut instinct"—suddenly there were cavalcades of information about any dimension of audiencehood you could possibly imagine. Much of it was perhaps no less abstract than old information regimes but was so vast as to seem like an entirely new beast. Some of it, as I hope my personal anecdote convincingly suggests, did not seem abstract at all. And, of course, not all of the new information was equally accessible to everyone. In fact, limited access, especially to anything that was being processed computationally, was an enormous change from an environment where the main means of accessing audience was the Nielsen ratings, a measurement system that had its flaws, to be sure, but that everyone had agreed to.

The transition from a relatively shared, relatively simple audience information environment to an incredibly rich and rather uneven one is substantial and provokes many questions about how a media industry should operate. For one, what is all this new information actually good for? How does it change practices and expectations across a range of industry sectors? How does knowing the audience in this richer way alter industry professionals' perceptions of their jobs and identities? Shift economic arrangements and partnerships? Require entirely new categories of labor to manage all of the incoming information? In the period from 2010-2018, the US television industry did not necessarily manage to settle many, or even any, of these questions. But the negotiations, tensions, and processes of making sense that new forms of

audience information spurred are an important record of a culture in transition. And as this industry was not alone in grappling with the challenges of suddenly being inundated with so much of so many forms of new information, these sensemaking moments may shed light on a broader moment of epistemic transition.

The need to understand the audience is a foundational issue for media industries, as well as one that has shaped media studies from its inception. Whether funded by advertisers or some means of direct pay from the audience itself, without people who are invested in paying attention, it is hard for a media product to justify its existence. As a result, trying to make sense of audiences and their unpredictable desires has always been an industrial imperative. In the radio era, as the mass audience formation was established, Paul Lazarsfeld and the administrative school of research at Columbia University developed "a whole battery of techniques...to measure responses to the outputs of the modern media of mass communication" and attempt to predict and replicate what people responded to (Scannell 2007, p. 17). Later, as broadcast television became the dominant medium, Todd Gitlin (1983) documented industry executives' various approaches for trying to manage the unpredictable business of anticipating what content will resonate with mass television audiences. As cable and eventually streaming technologies fragmented the mass audience, new problems of how to value and understand smaller, more niche audiences arose (Lotz 2014, Napoli 2011). With the key technologies of audience ratings, media industries capture a version of the audience that can be bought and sold, but their social reality remains invisible (Ang 1991, Meehan 1993). Even when it is has been measurable, the audience has never been really knowable, and media industries have constantly sought to find ways to try to apprehend and reach it.

Where the contemporary moment's iteration of the need to understand the audience distinguishes itself is the introduction of advanced computational technologies (Napoli 2011). These technologies, which come in a number of different forms, have introduced many dimensions to the television industry's attempts to access the receivers of its messages. Social media, for instance, created a large-scale environment of connected sociality that linked our social and affective ties, while giving everyday people the ability to share their own content (Van Dijck 2013). This gave the television industry access to the expressed thoughts and feelings of audience members in real-time. "Big Data," which would later get rebranded as "Artificial Intelligence" (see Broussard 2018, Elish and boyd 2018; in this project, I largely continue to use the "data" framing of this technological development), offered a vast apparatus for recording human behavior along an unprecedented number of dimensions and analyzing it with complex algorithms. This promised the television industry the ability to see viewing behavior in more accurate and individuated ways than its old information regimes had offered. Both datafication and connected sociality offered, or at least seemed to offer, ways of accessing audience members in situ, giving the television industry both more accurate behavioral observations and a glimpse of the social reality that old ways of knowing the audience obscured. They are also two of the fundamental components of life in "algorithmic culture," an important framework that has emerged for making sense of the significant cultural shifts around how deeply computational technology is now enmeshed in everyday life (Gillespie 2014, Seaver 2017, Striphas 2015).

Algorithmic Culture, Meet Production Culture

The US television industry's adoption of big data and social media as tools of algorithmic culture is driven by the industrial imperative to better understand audiences in a dramatically shifting landscape of television consumption. While the shift to algorithmic culture in developed

nations with advanced computing capacities is a phenomenon that is taking place very broadly, spaces of production culture like this television industry offer a particularly productive locale for unpacking its implications. Understanding how algorithmic culture impacts the production of culture may have far-ranging implications on what culture is produced. As a result, one of this project's goals is to bring together these two recently significant strands of scholarship.

The central concern for scholars of algorithmic culture is the increasing use of computational processes in the domains of knowledge, social life, and creative expression. To quote Tarleton Gillespie (2015, p. 168), "as we have embraced computational tools as our primary media of expression, and have made not just mathematics but all information digital, we are subjecting human discourse and knowledge to [the] procedural logics that undergird all computation." In other words, computers, for all the complex tasks we have trained them to perform, are still only capable of "thinking" in 1s and 0s along the instructions and rulesets (i.e. the "algorithms") we have told them to follow. The complicated algorithms and sophisticated machine learning techniques that today's computers are capable of may allow them to process information at a scale beyond human capacity, but according to much more limited parameters—parameters that we are now trying to fit just about everything into. But our human minds are much more elastic in their ways of thinking than computers are (Broussard 2018). Minds are, however, conditioned by practice and surroundings—which are increasingly made up of computation. Interacting constantly with computational processes, "habits of thought, conduct, and expression...arise in relationship to those processes" (Hallinan and Striphas, 2013, p. 119). Thus, for me, the study of "algorithmic culture" is not the study of "algorithms per se" (Gillespie 2016 p. 25, see also Bucher 2017, Kitchin and Dodge 2011), but the study of life under a broader set of sociotechnical conditions. Under these conditions, as computational technologies and their

underlying architectures become increasingly inseparable from the various activities of daily life, people and algorithms work with on, with, and through each other to shift underlying logics of the human experience. Labor, self-expression, creativity, democracy—these are just a few of the many, many aspects of our world that have seen profound transformation next to algorithmic technologies.

An emerging critique of these lines of scholarship, however, is that much algorithmic culture and critical data studies work is done at a distance, applying classic critiques of rationalization and quantification to new digital objects and contexts largely in the abstract, mostly without the overt presence of humans (Kennedy 2018, Seaver 2017). As Helen Kennedy (2018) notes, the focus is on the incredibly significant work of pointing to emergent harms of surveillance and discrimination and thus the emphasis on dominant actors, experts, and new concentrations of power in algorithmic society. Without dismissing the importance of these findings, such a focus leaves an absence in terms of the lived experiences of the people (particularly those who are non-experts) embroiled in algorithmic systems and their agency in living and working with them. This agency may be circumscribed by the structural factors that critical algorithm and data studies have thus far focused on, but still plays an important role in how the transformations engendered by these technologies may play out (see Havens and Lotz 2012).

Adding people into theory can be a disruptive business; as Nick Seaver, (2017, p. 3) points out "ethnography often throws analytic frameworks into disarray" by revealing the messiness of human practices, processes, and definitions. For him, ethnographic work revealed that some aspects of the critiques of algorithmic systems were perhaps too totalizing:

"Algorithmic systems are not necessarily populated by data fundamentalists but rather by diverse and ambivalent characters, working in contexts and with meanings that cannot simply be read or guessed at...it is too easy (and too common) to try reading programmers motivations off of algorithmic systems and to conclude that the programmers themselves must be algorithmic—limited by naïve and rigid assumptions about human life. Ironically, this mistake echoes a common humanistic critique of Big Data: that it reduces people to decontextualized formalisms" (p. 9-10)

In real life, people build and take up computational tools within complex social and cultural milieus. Given that algorithmic culture is socially enacted, the complexity and ambivalence of those people and milieus matter for fully understanding its implications.

Like most other algorithmic culture scholars, Seaver focuses on explicitly technological contexts, with a particular interest in engineers of recommender systems and the implications of their conceptualization of "the algorithm." However, a core part of his argument is that even in those contexts, it is not only the "technical people" who are involved in producing and defining the algorithmic system as a social reality. Taking this point a step further, "technical contexts" are not the only spaces where algorithmic culture is enacted. These tools are widely embraced, used by all kinds of individuals and organizations. The majority of this use is by "actors...with ends over and above making a profit directly" from the data production aspects of algorithmic systems that have proven most profitable and who are not themselves technical experts (Couldry, Fotopolou, and Dickens, 2015, p. 119). Comparatively little work on either algorithms or datafication has attended to them in such contexts (Kennedy 2018). Whether trying to use computational tools in the service of organizational or personal goals, these people retain agency and reflexivity in their interactions with technology. Further, these everyday interactions with algorithmically driven technologies provide meaningful opportunity for interpretation, discourse, resistance, and contestation (Bucher 2017, Couldry et al. 2016, Couldry and Powell 2014, Couldry 2015, Eslami et al. 2016, Kennedy 2018, Willson 2017).

In non-technical contexts, people's everyday experience of algorithmic culture typically takes the form of delegating the everyday tasks of work and life to software systems that are

opaque to them (Willson 2017). When people use social media in their personal lives or log into an analytics platform at the office—this is enacting algorithmic culture too. We have hundreds of everyday personal and professional engagements with algorithmic technologies on a daily basis. While everyday users have a different kind of influence on the algorithmic system than programmers do, it does not require expert knowledge to have agency within algorithmic culture. Algorithmic technologies have had much influence on contemporary culture, but they are not our robot overlords, imposing their will on us from above to transform society. These software systems are simply tools that people use to do things, and the ways that people do so shape the systems even as the systems shape the users. To be sure, this is not an even exchange; algorithmic technologies are embedded in corporate power structures. These structures have the advantage, which is why the key interventions of this field have focused on the problematics of their new concentrations of power (e.g. Noble 2018, Pasquale 2015).

That said, the actions of everyday users matter. Whether people understand that their experiences using computational technologies are shaped by "algorithms" and theorize about what that means (e.g. Bucher 2017, Eslami et al. 2016) or are unaware of the "algorithm per se" (e.g. Eslami et al. 2015), the system "learns" or is adjusted in response to their behavior, and consciously or unconsciously, they likely adjust their behavior to become more (or less) legible to it. Either way, as Michelle Willson (2017, p. 141) writes:

"When we talk about algorithms and the delegation of tasks and processes to them, we therefore need to take into account the ways their designs and their actions interact with their human counterparts, their relations, systems and structures (social, technical, cultural and political)."

In other words, when introduced to people and our various social structures, algorithmic technologies can't just "take over." They have to interact with what is already there.

And that brings us to television. Producing and distributing television is an incredibly complex endeavor, especially in the commercial system of the United States television industry. It is a multi-billion dollar industry where the vast majority of power is concentrated in the hands of a few major media conglomerates. It is also "both a site of artistic and social expression as well as a business concerned with the maximization of markets and profits" (Havens, Lotz, and Tinic 2009 p. 249). Thus, despite a shared end product, workers specializing in the many moving parts of the television pipeline from creative production to advertising sales to promotion bring quite heterogenous goals and values to their parts of the process (Bolin 2011, Havens et al. 2009, Meehan 1994). There are also many levels of literacy about and interest in social media and big data technologies throughout different industry sectors. This heterogeneity makes it an intriguing site for examining how people make sense of and use technologies of algorithmic culture. In particular, as these technologies make the audience information environment more complex, how do different sectors of this complex industry approach the new information in similar or different ways? What implications for industry practices, and ultimately for cultural production?

Like the rest of the world, the television industry is embracing computational tools, whether by using data analytics for ad targeting or Instagram to get deeper engagement out of today's fragmented audiences. As John Caldwell (2008, p. 343) posits, "complex critical and theoretical ideas churn through even mundane industrial matters" it seems worthwhile to examine how people with the diverse perspectives that television's different stakeholders hold make sense of the addition of these technologies to their work. As Caldwell (2008), Miranda Banks (2009, 2016), and many other scholars of production cultures (Caldwell, Banks, and Mayer 2009, Havens et al 2009, Martin 2018) have noted, the Hollywood film and television industries are a complex cultural community in which workers tend to be quite thoughtful and

reflexive about their tasks. The values, practices, and cultural expressions of this community are not necessarily commensurate with the needs of algorithmic logic and computational ontology. This follows from the fact that historically, though the American television industry has long produced a lot of hard numbers and statistical data about its work, it has always had a deeply ambivalent relationship with this mathematical way of thinking (Caldwell 2008, Gitlin 1983). Numbers are drawn on when convenient, and quickly jettisoned for "intuition" when that better matches with personal desires or the pursuit of cultural capital. Returning to Seaver's (2017) argument that assuming that the people who make computational systems "think" like computers is an overly simplified conceptualization, they are at least trained in how computers work and familiar with how to solve problems using those capabilities. This is not something that we can assume about the majority of workers in television, and it adds a certain complexity to their imagination and deployment of the technologies. Engineers are assigned the job of making the technology do the task; these are non-experts who must apply it and assess the consequences. So, for instance, as I discuss in Chapter 3, the expectations and assumptions that television executives bring to their dealings with data technologies produce an imaginary that does not mesh with its current methodological capabilities. These tensions, past and present, are something that television industry workers actively grapple with as they engage with big data and social media. They are not just using the tools of algorithmic culture blindly but thinking about how they fit in to television industry cultures as they previously exist.

Scholarship examining the intersection between television and algorithmic culture has thus far focused on its most visible junctures, emphasizing the interventions of digital endemic companies—primarily, but certainly not exclusively, Netflix—who have entered and risen to prominence in television presumably on the strength of their algorithmic differentiation (e.g.

Barker 2016, Finn 2016, Hallinan and Striphas 2013). This project, however, engages with American television production culture broadly as opposed to a specific focus on the enactment of algorithmic culture at digital-endemic television companies. These companies and their workers certainly figure here, insofar as they are at this point established players in the American television industry—Netflix, Amazon, and their ilk are characters, even important ones, but the backdrop is a broader scene. I sought to account for a more diverse set of experiences with the technologies of algorithmic culture than a narrow focus on the Silicon Valley interlopers who have reshaped the industry landscape could provide.

Knowing the Audience in the Information Age

This project is located at the intersection of critical media industry studies and algorithmic culture studies. It seeks to bring the two areas together while making a distinct contribution to each. Each chapter dives into a different industry sector to consider how it is making sense of advanced audience information. The chapters loosely represent financing logics, production, and promotion, but are not meant to be an exhaustive accounting of all the ways that data and social media are being used to understand audiences in the American television industry. Rather, they are taken as three distinct sites within the industry that are navigating the new audience information environment differently, and thus provide productive comparison and contrast.

As a production study of television, this project tracks a variety of emergent practices that show a destabilization of industrial common-sense around notions of audience and how to operationalize it. With so much information and multiple technological paths to reaching it, each sector and firm is free to construct the audience in the way that best serves their needs, a move that makes sense in the context of an algorithmic culture with its orientation towards

personalization. This erosion of common ground and personalization of the audience has complex implications. The ability to customize constructs of audience in this way has destabilized financial arrangements in ways that seem likely to lead to even more concentration of economic power in the industry, on the one hand. On the other, the ways that writers and producers seem to be negotiating the new information they are confronted with suggests movement towards more inclusive hiring practices and storytelling norms. While little that I describe here is settled, it shows that some process of making sense of and placing one's work in relation to "audience" using advanced audience information is now part of the job across the US television industry. These processes are distinct in every sector.

As a contribution to algorithmic culture studies, offering an empirical account of people's experiences dealing with these technologies in this field of cultural production shows that the mixture of "algorithms" and "culture" is not a top down process of imposing rationalization and datafication, but one where humans have agency and must find ways to make algorithmic technologies fit into existing cultural milieus. Adjusting practices in relation to this technology is often a creative act. It may engender unexpected forms of critical reflexivity. Within this, there are certainly cases of buying into the hype and misunderstanding the capabilities of these technologies, but there are also people aware of the same critiques of rationalization and datafication that scholars warn of. Anticipation of these critiques is often woven into emergent practices.

In exploring the US television industry's take-up of digital media technologies as tools for understanding television audiences, I sought to map the practices that are emerging as television workers make sense of the abundance of new information about audience members available to them—information that ranges in scale from population level "big data" behavior

tracking to individual encounters with a fan on social media. I unite these different types of emergent knowledge about audiences with the umbrella concept of *advanced audience information*, which I define as audience knowledge mediated through big data and social media technologies. This advanced audience information is vastly more detailed than the ratings-based audience information regime that the American television industry has traditionally relied on, but lacks its cohesion as an agreed-upon standard for conceptualizing the audience across the industry.

The audience is a structuring concept for all work in the television industry (Johnson 2014). As such, it makes sense that advanced audience information is the primary means through which the broader contemporary turn toward algorithmic culture is being integrated into the US TV industry. Advanced audience information technologies have simultaneously made the industrial cultural imaginary about audiences far more complex and increased the salience of a variety of audience practices that constitute day-to-day labor. Ultimately, because so much of how the television industry operates is in anticipation of or in reaction to the way that it understands audience, the way that these workers make sense of their vastly changed audience information landscape has a direct impact on a wide range of practices, changing everything from the way money is spent to the way stories are told.

I sought to ground this project in the lived experiences of industry workers as they make sense of audiences in a landscape of connective technologies. My choice to frame this as being about the "audience" despite the fact that my focus is on connective technologies emerged from my grounded approach. However, though it initially emerged as an emic choice—I say audience because my informants do¹—I believe that there is some value to reclaiming "audience," or at

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¹ Or, if not "audience," they would say "fan," a term that industry arguably uses far too broadly.

least reconsidering it, in studies of the digital. "Users" have been a preferred term when discussing spaces and technologies of interactivity. In looking at television's intersection with the digital—in particular, innovations like the Automated Content Recognition software in Smart TVs that I discuss in Chapter 2—however, I see the reminder that in today's technological systems, we are always producing data to be collected, that our activity is always of value even when we seem to be sitting back on the couch, "using" nothing. All media consumption, from the most active to the most passive, produces advanced audience information.

My focus on the US's major centers of television production and distribution is also a deliberate choice. Commercial creative industries are reframing the audience in response to connective technologies across a diverse number of fields and global contexts, however, television has always been a particularly key site of theorization about audiences. Although similar issues are playing out interestingly in the short-form oriented digital-video industry (e.g. YouTube), I agree with those who suggest that these are distinct industries (Cunningham and Craig 2019, Lotz 2017). Additionally, there is already a growing body of literature looking at how digital video has emerged in a cultural space between Silicon Valley and Hollywood and merges aspects of the ideology of both (Cunningham and Craig 2019, Cunningham, Craig, and Silver 2016, Christian 2018, Lobato 2016). There is not, on the other hand, much information exploring how the addition of Silicon Valley tech plays out in established entertainment industry institutions. I argue that the interaction between Silicon Valley and Hollywood is not only occurring in technology companies like YouTube that have moved into the entertainment space, but in entertainment companies moving into the technology space. As for my focus on the United States, the broad circulation of US media goods (and influence of US production practices) in the global entertainment market makes the US industry a particularly central location for this type of

work, while its complex commercial/creative structure makes it a useful site for examining how workers with diverse orientations towards the uses of algorithmic technologies make sense of them. Lastly, although, this dissertation examines events largely taking place from 2010-2018, I do seek to take a long view historically, contextualizing recent developments and emphasizing caution about declaring things to be revolutionary.

Research Questions and Methods

The project focused on the following research questions:

RQ1: What practices are emerging around the new forms of knowledge about audiences—involving both large-scale data and small-scale audience/producer communication that are enabled by connective/algorithmic technologies? What do these practices tell us about how the television industry is changing as it adapts to algorithmic culture?

RQ2: How do industry workers make sense of the changes brought by algorithmic technologies? How do their expectations, anxieties, and imaginaries about these technologies will have fit with the affordances and the impact they are having as new practices develop?

RQ3: In what ways are television industry audience knowledge practices and negotiations reflective of and useful for understanding broader cultural issues of the transformations of algorithms and datafication?

To answer these questions, my primary method was industry fieldwork, conducted according to what Gina Neff (2012) describes as a "network ethnography" technique, drawing interviews and observation sites from the community of professionals in a particular field and location regardless of what firm they are employed by. As suggested by Seaver (2017), I embrace a multisited "scavenging" approach that is ultimately fairly interview-centric to exploring algorithmic culture. Particularly in my engagement with non-experts, I was inspired by Couldry and colleagues (2015, Couldry et al. 2016, Couldry and Powell 2015) provocations to push past the digital objects and focus on the agency and reflexivity of people engaging with them in the

service of their goals, emphasizing how television industry workers make sense of their everyday engagements with algorithmic culture.

I conducted the fieldwork for this dissertation over the course of seven months, from February to August of 2017. During that time I was based in Los Angeles, but I took three one-week trips to New York City for additional data collection. I went to industry events and conferences (see Caldwell 2008), made visits to offices, and attended dozens of social events with industry professionals in which topics related to technological change and working conditions were a frequent topic of conversation. I conducted 54 in-depth semi-structured interviews in which I was able to focus the conversation on specifically on issues of technology and the audience. My interview subjects included writers, producers, executives of various types, assistants, social media coordinators, consultants, attorneys, advertising managers, and employees of audience measurement and analytics firms. I interviewed everyone who was willing to talk to me, so while my focus was on the industry that produced and distributed the kind of longform scripted content we referred to as "primetime" before the marketplace was split between linear and non-linear distribution, I ultimately also conducted interviews with people working in reality competition, late night, daytime talk, and children's programming.

With some exceptions in Chapter 3, where the focus on storytelling meant that some details were essential, I have opted not to provide identifying details or information about where my informants worked except in general terms. Those identified by name in Chapter 3 are showrunner-level writers who are at this point public figures; while I have connected some quotes from lower-level writers to the names of the series they worked on, I have done my best to obscure their identities. I made this decision after conversations with each of my informants. While a number of them (even beyond those named) are public figures or in powerful positions,

the majority are in early career or lower-level management roles—in general, I found that people in those positions (typically with job titles of assistant, coordinator, manager, etc; among writers generally staff writers, story editors, and co-producers) were both more engaged with the day to day use of advanced audience information technologies and, in line with Caldwell's (2008) "inverse credibility law" more open and forthcoming. However, most expressed trepidation at being quoted given their low levels of power and experiences with workplace retaliation, which tends to be an unfortunately mundane part of working in Hollywood production. Because of my personal experiences working in their milieu, I am highly sensitive to these concerns and have thus gone as far as I could in de-identifying them; a number felt that even a pseudonymous identification could easily be decoded. While not all informants were equally concerned, I opted to do this across the board for consistency and maximum protection for those who were.

Additionally, some informants asked not to be quoted even in a de-identified manner, and I have used those interviews only as background and to establish themes in concert with those that are quoted.

In addition to my fieldwork, I also collected trade and popular press materials related to my topic for the period from 2010-2018. This secondary data set allowed me to contextualize my findings from the field in 2017 within longer-range industry discourses, fill in gaps, and get a higher-level view of the scene, helping me understand which companies were the major players that I might not have access to as well as who the industry considered its thought leaders on these issues.

Chapter Outline

In Chapter 2, "Television's Currency Crisis and the Promise of Big Data," I look at the ongoing struggle to replace or upgrade the Nielsen ratings currency system that ad-supported

television has long traded on. The industry has been frustrated with the disjuncture between ratings and contemporary audience habits for quite some time, yet the currency remains dominant. Big data has been imagined as the resource that will provide the solution to this problem, but a variety of efforts have fizzled or produced less than anticipated results. I show that business hype has produced a data imaginary out of sync with the capabilities of these technologies and the institutional arrangements that support the advertising business model. Further, contrasting these failures with the more successful gathering and application of audience data at digital endemic companies like Netflix and Amazon, I suggest that the current affordances and limitations of data technologies do not lend themselves to supporting the business models and industry structures of traditional television. This made it particularly easy for digital endemic firms whose business models allowed them to imagine the uses of audience data differently to quickly amass audience attention.

In Chapter 3, "Storytelling Between Art, Audience, and Algorithm," I show how storytelling practices in scripted television production are shifting in light of new forms of audience information. Writers perceive both social media interactions with fans and industry's growing reliance on digital data as potential threats to both their individual creative identities and the medium's hard-won status as a preeminent modern storytelling form. They fear that if their writing is guided by audience desires, it will be lower-quality and diminish perceptions of their artistic abilities. However, the actual ways that they are making sense of both data-driven work environments and social media interactions suggest that advanced audience information has a tremendous but significantly less straightforward influence on television storytelling, inspiring TV writers to engage in what I call *networked industrial reflexivity*.

While Chapters 2 and 3 look at categories of workers who existed before algorithmic culture adapting to the uses of these new technologies, Chapter 4 looks at one who was created to deal with them: social media promotion and engagement workers. This chapter documents the sensemaking that has gone into creating this new profession. Following a series of key tensions that its first generation has had to negotiate, I show how they are using their position as digital knowledge workers in a legacy media industry context to guide the television industry towards understanding its key concepts in the context of a television ecosystem that is part of digital culture.

Looking across these sectors and how practices have shifted, the industry's understanding of audience has changed because of these technologies. In particular, the "audience" that television industry workers experience today is oriented toward personalization. Each sector can "see" an audience that makes sense for its goals, needs, and interests but there is little common frame of reference between them. Do these technologies make the audience more "knowable"? Sometimes, maybe. It depends, probably, on what you want to know, and if you have the skills to find it in this glut of information.

But whether the audience is "knowable" now or not because of algorithmic technologies, it certainly looks different than it used to the people who make and sell and promote television because of them. And whether this means measuring demand for advertising dollars differently, or just thinking about how someone different than you might react to the story you want to tell, that has the capacity to change culture.

Chapter 2 Ad-Supported TV's Currency Crisis and the Promise of Big Data

How to Lie with Statistics.

It's the title of a 1954 illustrated book about common misinterpretations of quantitative reasoning, one of the bestselling mathematics books of all time, and as he welcomed the profession to the Audience Research Foundation's 2017 Audience Measurement conference—"Modern Measurement: Media, Models, and Methods"—the association's President and CEO, Scott McDonald, held up the well-worn copy from his introductory college statistics class.

Today, more than ever before, this was relevant in audience measurement, he told us. As the pace of technological change continued to accelerate, the culture in the profession was becoming—and rightly so—"more relativistic and cynical about the veracity of the numbers." How in this climate of vast, contradictory information and black boxes were we to separate reasonable claims from "flim flummery"? In the digital era, audience measurement had lost its senses of transparency and trust.

In the part of the television industry that operates on the basis of advertiser support, buying and selling audience attention is the business model's core. For decades, audience transactions were conducted on the basis of the Nielsen ratings currency, which operated as an agreed upon standard for valuing audiences among buyers and sellers (Buzzard 2012). In the digital age, however, contemporary viewing behavior is fragmented across devices and content, and much richer data sources providing advanced audience information are everywhere. The Nielsen ratings have begun to seem woefully inadequate for capturing the contemporary

attention market. While the Nielsens persist as a transactional standard because nothing has emerged to supplant them, trust in their soundness as a currency has eroded.

"Big data" has long been imagined as the panacea that will alleviate frustrations with the current state of advertising transactions. From set-top boxes to Smart TVs to social media, the sources collecting data about television viewing behaviors are many; if combined, they would seem to offer surveillant superinformation about TV's audiences that would make transactions precise, efficient, and useful for both advertisers and networks. But even when the solutions of data are figured as close at hand—year after year, the trades tell the story that the data-driven sea change in how advertising transactions are conducted is just around the corner—they seem to never materialize, slipping through the industry's fingers. Meanwhile, Silicon Valley interlopers, who use different business models, have taken advanced audience information and leveraged it to enter the industry and swiftly command an impressive percentage of audience attention.

This chapter investigates ad-supported television's attempts to use data to solve its currency crisis as productive failures that tell us something about the limits of datafication and algorithmic culture. Clashes between affordances, business models, stakeholder interests, and cultural imaginaries have prevented predicted change from taking hold. And where data has been more successful at reshaping economic relations in television, the implications—for audience privacy and the relationship between data-driven business models and monopoly power—are quite troubling.

The Currency Crisis: Eroding Trust in the Nielsen Ratings and the Rise of Data Hype

For decades, the Nielsen ratings served as the unchallenged operating currency of American ad-supported television. These ratings used a representative panel and inferential statistical methods to estimate how many US households were tuned into particular programs.

Advertisers bought airtime during programs based on where they could access audiences' attention. More people, in more key demographics tuning into a program meant higher prices for those audiences. Exposure was not a perfect proxy for attention, but certainly during the broadcast era, the Nielsen method was a statistically sound approximation of audience size and demographics (Gitlin 1983). Nielsen ratings served as a currency for the television industry because they were an agreed upon standard of information that people agreed to view as an authority. Yet, as Amanda Lotz (2014) notes, the industry was aware of the shortcomings of this method for estimating audience attention to commercials long before digitization, changes in distribution, and broader economic pressure started to chip away at its dominance. However, fragmentation, delayed viewing, and commercial skipping behaviors taxed the ratings' usefulness and the industry's ability to rely on commercial audiences and the value of those audiences in the same way it always had (Lotz 2014, Napoli 2011, Turow 2009). In 2007, Nielsen responded to these pressures by changing the currency to the C3 standard, which measured average commercial minute viewing (instead of program audience) for up to three days after the original airing, as long as the ad load remained the same.

Despite this change, relevant stakeholders continued to lose faith in Nielsen over the next decade. From the beginning, many desired a C7 metric that would account for seven days after original airing instead of three. Even with C3, the ratings continued to fall. But in a complex environment with many screens, distribution, and content options, actual viewing behavior did not seem to have decreased. It seemed to somehow not be fully captured by the ratings methodology. As Philip Napoli (2011) suggests, Nielsen's panel sampling strategy is illequipped to handle an environment where niche audiences cluster in the long tail, meaning that many audiences will be sampled in numbers too small to be statistically meaningful. This leaves

networks concerned about "leakage" or the discrepancy between ratings and actual viewer behavior (NBC ad sales chief Linda Yaccarino once colorfully described the problem, saying, "Imagine you're a quarterback, and every time you threw a touchdown it was only worth four points instead of six. That's what I'm dealing with every friggin' day."). On the media buying side, broad age/sex demographics are seen as an outdated way to plan advertising campaigns when it is now so easy to gather data about particular people from which one can infer intent and interest (Fulgoni and Lipsman 2017). While Nielsen has introduced many new products and innovations to "keep up" with evolving technological conditions, its approaches to doing so have been in keeping with the measurement firm's fundamentally consistent and conservative style (Buzzard 2012, Bermejo 2009). This has not been well received; Nielsen innovations have almost invariably been met with controversy or at least a chilly response. Whether this is deserved or not one thing is clear: Nielsen's vision of the audience is no longer fully resonating with the needs and practices of today's US television industry. I call this loss of faith and the resulting environment of uncertainty and mistrust around transactional standards for audience attention ad-supported television's "currency crisis."

In large part, the currency crisis is the result of today's information environment becoming so much richer. Today's television industry has access to many forms of advanced audience information. As Göran Bolin and Jonas Andersson Schwarz (2015, p. 1) write:

"Mass media audience intelligence was premised on socio-economic census data variables such as age, gender, ethnicity, education, and media preferences...Big Data technologies register consumer choice, geographical position, web movement, and behavioral information in technologically complex ways."

These data would seem, on their face, to be able to easily present a portrait of audiences that adsupported television could operationalize and deploy to keep both buyers and sellers of ad time satisfied. This has not, thus far, proven to be the case.

With the rise of technologies capable of tracking people in this way, the idea of "big data" has had a powerful zeitgeist moment where it was seen as a silver bullet for problems across a range of industries, including television. This is typically attributed to changing technological conditions, but as Crawford, Gray, and Miltner (2014) note, larger cultural factors are at play as well. In their highly influential 2012 essay "Critical Questions for Big Data," danah boyd and Kate Crawford offer a meaningful definition of the term "big data" as something much more expansive than a method or a large set of values:

"a cultural, technological, and scholarly phenomenon that rests on the interplay of:

- (1) Technology: maximizing computation power and algorithmic accuracy to gather, analyze, link, and compare large data sets.
- (2) Analysis: drawing on large data sets to identify patterns in order to make economic, social, technical, and legal claims.
- (3) Mythology: the widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that were previously impossible, with the aura of truth, objectivity, and accuracy" (p. 663)

In this definition, big data is less about the size of the data collected and more about our capacity to work with it and the mythology about knowledge that capacity engenders. boyd and Crawford suggest that, surrounded by a mythology that paints its immense volume as a superior path to information compared to all others, big data changes the definition of knowledge, or at least has the capacity to do so if it is allowed to "crystallize into new orthodoxies" (p. 666) before receiving adequate critical interrogation. Applying the elements of boyd and Crawford's definition to the domain of television audience measurement, a number of emergent technologies now capture data on television audiences that could seemingly supplant the panel as the source of information about viewing behavior. But while the mythology that big data audience

measurement was inevitable and would alleviate the currency crisis developed, analysis methods have lagged behind.

Crawford and colleagues (2014) argue that what is most important to understand about big data is what it can and cannot tell us, and what its relationship to other ways of knowing—as well as to "new concentrations of power" in society (p. 1667)—might be. One important concentration of power related to the use of big data is the "analytical digital divide," or the fact that because specialized tools are required to capture, store, process, interpret, and analyze big data, very few people can genuinely access the knowledge it produces. And those that can are rarely incentivized to share it with others. For those in the business and tech worlds monetizing data analytics, their "opacity to outsiders and subsequent claims to veracity through volume" (Crawford et al. 2014, p. 1667, see also Kitchin 2014, van Dijck 2014) are key selling points. Ironically, these are precisely the properties that have made them difficult for ad-supported television to harness.

Elsewhere in advertising, however, big data has been put to use to great effect. Alongside the erosion of trust in the Nielsen ratings, there was the emergence of another advertising ecosystem online. Digital advertising works differently, taking advantage of the affordances of data, primarily the internet's ability to use "cookies" to track you and store the tracking information in databases (Bermejo 2009, Turow and Draper 2012). By the late 2000s, audience data exchanges facilitated the exchange of individuals with particular characteristics in real time. As Turow and Draper (2012, p. 136) write:

"It is now possible to buy the right to deliver an ad to a person with a specific profile at the precise moment that person loads a web page. In fact, through cookie-matching activities, an advertiser can actually buy the right to reach someone on an exchange whom the advertiser knew from previous contacts and was tracking around the web."

While television advertising has focused on efficiency, delivering large audiences at a low cost per exposure, computational advertising focuses on effectiveness, delivering smaller and more expensive but more precise audiences for a higher return on investment over time (Malthouse, Maslowska, and Franks 2018a). However, despite this precision, digital advertising struggles with ads being served to bots and other forms fake traffic (Lotz 2014). Because ad exchanges are content-agnostic, delivering messages to audiences regardless of what they appear next to, some advertisers have concerns about brand safety and being placed next to controversial messages. Nonetheless, the capabilities of digital advertising have set some expectations of how precisely an advertiser should be able to buy an audience. In 2016, for the first time, digital ad spending exceeded that for TV in the US.

Although traditional television mass advertising and digital advertising have had very different practices, their norms seem to be on a "collision course" in the 2010s (Malthouse, et al. 2018a, p. 2). Though still a bastion of traditional advertising, TV is now experimenting with computational approaches derived from digital approaches. Increasingly, both networks and agencies are turning to their own internal data analyses rather than ratings to try to choose where and when advertising should run (Malthouse, Maslowska, and Franks 2018b). Lotz (2014, p. 224) concludes that "the days of a single measurement service with a standard currency are over," as the plurality of strategies and fracturing of business practices means that multiple approaches are necessary.

As hungry as it seems the American television industry is to rethink its methodological basis for conducting advertising transactions, no innovation has thus far proven transformative.

The information environment has become much more complicated, and supplementary practices have emerged, but the Nielsen ratings currency persists, because it remains "the least bad

alternative" (Lafayette 2018). And caution is warranted. Such a move would have enormous consequences. The business implications of such a shift are staggering: a different measurement methodology produces different audiences, which has huge financial implications in a business that invests billions annually on the basis of the information it gleans from Nielsen ratings (Buzzard 2012, Lotz 2014, Napoli 2011). But moreover, as Lotz (2014), emphasizes, producing different audiences produces a different sense of demand, leading to different programming and ultimately a different culture. Measurement may not be the sexiest topic in television, but the industry's desire to drastically shift practices in light of current technological conditions has farreaching implications. And in its hope for using advanced audience information to change this landscape, it may not have effectively matched up the problems and solutions. As M.C. Elish and boyd (2018, p. 58) caution, "through the manufacturing of hype and promise, the business community has helped produce a rhetoric around these technologies that extends far past the current methodological capabilities."

"Things are Moving a Bit More Slowly Than Anticipated": Big Data Solutions that Never Materialize

Such business hype helped to feed a television industry data imaginary suggesting that "big data" in some form would be the tool it took to bring stability after the currency crisis. The array of sources from which to draw datasets about television viewing behavior (or related audience behaviors relevant to advertisers) was quite diverse: set-top box databases, social media posts about television, third party consumer purchase tracking, Facebook "identifier" data sets that could unite all of the above by connecting them to particular device owners. These were just a few of the advanced audience information sources considered for their potential. In theory, surely the ingredients for a new currency—or some other non-currency solution for restoring

order to television advertising transactions—are somewhere within this vast amount of information.

However, to harness this much data effectively requires not just vast computing power and a great deal of work, but also consensus about what the data mean—consensus that becomes harder and harder to produce the more data there is. Current technologies are capable of far more transformation of the television advertising space than has been implemented; the shift to networked, datafied architecture is not the same as a shift to functional measurement practice (Bolin and Schwarz 2015). Various stakeholders are both entranced by the seeming possibilities of its potential and fearful of falling behind others who they believe understand it better (Kelly 2017, Koesterich and Napoli 2016). As Lotz (2014, p. 225) notes, "the variety of stakeholders and range of proprietary technologies have slowed development of measurements that match the sophistication of contemporary technology." For years, trade discourses have figured the shift to a data-driven solution (whatever that might be) as right around the corner—this year, next year, the next ad-buying cycle—but each upfront comes and goes, with headlines pushing the payoff to the following year's advertising sales cycle.

This is not to say that plenty of data insights/"insights" have not made successfully made their way into industry understandings of the value of television programming and television ad space. An early discourse about data imagined social media as a potential source of an alternative currency. Because social media activity related to television took place in the "internet ecosystem" instead of on television sets, these data were one of the first clear ways connect television viewing to other behavioral datasets generated by online activity, so their potential quickly became intriguing to those hoping to find a way to bring the two together (Hill 2014). In their account of the industry's process of wrestling with these data's potential to serve as a new

dominant market information regime, Allie Kosterich and Philip Napoli (2016) explain that, although social media data were clearly not a proxy for viewing/exposure, part of their appeal was they seemingly got at a different dimension of audiencehood: level of engagement or interest. Emphasizing this dimension has been considered as an approach that could counterbalance the shrinking/fragmenting of post-network audiences by making them higher value (Napoli 2011). As the industry navigated this information's potential, stakeholders researched whether high engagement on social was associated with better ad outcomes. Some television companies experimented with decision-making based on social metrics, as when The CW canceled a higher rated show over a lower-rated one that generated more social media activity. However, as adoption of social data became more widespread, Nielsen brought social measurement products to market. Koesterich and Napoli argue that, in line with its longstanding conservative approach to audience information, the measurement firm strategically blunted the disruptive potential of these new data by translating and standardizing them into the terms—such as traditional age/sex demographics—of existing measurement products. Considering their many methodological weaknesses (see Baym 2013), it likely would have been quite problematic if social media had somehow become a dominant tool for apprehending audiences. However, social media data—largely understood using analytic tools other than those provided by Nielsen settled into a role as a supplementary audience information regime and are used in a variety of ways, including providing an alternative narrative about a television program's value when traditional ratings are lackluster.²

² As informants that I spoke to in different position throughout this project emphasized, no single tool, whether Nielsen's or any other, has really proven adequate to analyze social media data as a supplementary audience information regime. It was common practice to use Nielsen's social tools alongside native social platform analytics and subscriptions to a handful of other intermediary services, such as Canvs, ListenFirst, Sysomos, Affinio, and others, that each offer fairly different approaches to the data. As one network exec said, "There is no one-stop shopping when it comes to social data."

It is not social media data, however, but set-top box data that have been particularly figured as the industry's true "great hope" in the currency crisis (Baumgartner 2015, James 2016). Cable and satellite set-top boxes can capture and create databases of what every viewer in the entire system has tuned into, as well as capturing other behaviors, like remote control clicks.³ Datasets produced by set-top boxes are huge, but bounded by the subscriber bases of MVPDs, which are not representative, possessing at a minimum major geographic and socioeconomic skew. However, because they are able to capture viewing behavior at a scale that the sample of the Nielsen panel cannot, they are believed to be able to handle some of the problems of fragmentation better, for instance by providing a meaningfully large enough audience sample for highly niche content. Importantly, the notion that the data provided by set-top boxes gets conceptualized as true "population level" viewing information seems to come from academic concern rather than industry practice. Audience measurement professionals often have advanced degrees in mathematics and understand these data as larger, less representative samples that contain more variables than the panel samples used in traditional audience measurement methods. Working with set-top box data versus panels becomes a matter of trade-offs familiar to any social scientist; is it better to work with a sample that is generalizable in composition but lacking statistical power (in some segments) or the reverse? In the power relations of the television advertising transaction, statistical power favors the networks, making audiences look larger. Representativeness, with its better sense of who is watching, favors the advertiser, although, having become accustomed to digital ad norms, most now want to understand what

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³ Data collected through connected TV devices (Amazon Fire Sticks, Apple TVs, etc), SmartTVs, and TV Everywhere apps on browsers, mobile, and tablets, are also relevant throughout the discussion here, and are often used alongside set-top box data (for instance when trying to create a cross-platform currency), but because these may be configured to work with existing digital advertising practices, set-top box data is the most closely intertwined with imaginations of how data can transform traditional advertising transactions.

they are buying in terms more specific than demographics. Many of those working with this data are trying to develop a "fusion" approach that uses both panel and set-top box data to take advantage of the strengths and minimize the weaknesses of both approaches.

There are two primary approaches that the American ad-supported television business has taken to addressing the currency crisis using these big data methodologies: developing a cross-platform currency system and moving towards a digital-style "addressable" way of buying, selling, and targeting advertisements. To be clear, these are far from the only ways that the industry has tried to utilize data to bolster the ad-supported business model, but they have been the most significant. Although there can be some overlap between the two, particularly when it comes to audience targeting, they are different problems technologically and conceptually (Fulgoni and Lipsman 2017). Each represents a different imagination of what data can do to solve ad-supported's currency problem. Developing a cross-platform currency means using the new data to modernize the old system. Switching to addressable means copying the disruptive system of digital advertising. In the failure of both to materialize as anticipated, there are frictions between technological affordances, business model arrangements, and cultural imaginaries of both what data can do and what television advertising represents.

Modernizing the Old System: Cross-Platform Currency

With the widespread availability of large-scale data-sets tracking relevant audience behaviors, perhaps the obvious solution to the problem of eroding trust in the Nielsen ratings is to use today's wealth of advanced audience information to devise a new currency. However, this is far easier said than done. As Comscore CEO Gian Fulgoni laid out in an industry talk I attended, the scale of viewing behavior fragmentation—across devices, distribution platforms, locations, age groups, socioeconomic status, and more is so immense it is difficult to wrap your

head around. Coupled with the unprecedented diversity of content choice, the number of datapoints you have to collect to get viewing information on every option is both vast and unstable. And, as Mark Andrejevic (2013) argues, the more information you have, the harder it is to make sense of it. Moreover, in closely examining some of the problems that attempts to create a new cross-platform measurement system have faced, some disjunctures between what the data of advanced audience information provides and what a currency for basing audience transactions on needs to offer emerge.

As Fulgoni and Comscore's principal researcher, Andrew Lipsman, wrote in an article for an academic journal, there is a theoretical solution that could create a cross-platform currency while preserving the status quo: a larger representative panel that whose watching and behavior was tracked across televisions, desktops, smartphones, and tablets (Fulgoni and Lipsman 2017). However, the practical problems with this theoretical solution are myriad. Most significantly, given the combination of four device types and the diversity of content choice, in order for each intersection to be statistically significant enough to be meaningful, the panel would need to be so large that the cost to produce the data would be too prohibitive. If these intersections are not meaningful, a new measure certainly couldn't make up for the inadequacies of the current currency. While a cross-platform measurement system does not necessarily need to be a transaction currency to be valuable in some other way, it does need to account for fragmentation. Fulgoni and Lipsman conclude that with a meaningful, representative cross-platform panel essentially impossible to create, the only way to build a cross-platform currency is to stitch together a variety of "big data" sources collected in different ways to build some measure that describes contemporary viewing in terms that are meaningful to both the buyers and sellers of ad

time. But whether this proposition is any less theoretical than the enormous cross-platform panel remains debatable.

The most significant problem plaguing attempts to create a cross-platform currency is the issue of data commensuration. Building a single composite measure from multiple indicators is a theoretically complicated problem even in a simple scenario without "big data" where one is able to design data collection instruments that fit together well. These are, to quote one industry audience researcher, something closer to "a Tower of Babel produced by incompatible systems." To begin with, you cannot add together viewing across platforms unless it has a common unit of analysis—impressions, viewers, households, plays, etc (Fulgoni and Lipsman 2017). The various distribution channels have simply not been designed for this, and researchers find themselves working with what a 2013 Broadcasting & Cable article described as "a morass of incompatible data" (Winslow 2013). A set-top box is a device that captures data at the household level, while a smartphone captures it at the person level. Online measurements of video usage usually use the month as their base unit of time, television measures use the day (Winslow 2013). From their inception, "digital" and "television" have conceptualized what they are capturing in different ways (Malthouse et al. 2018a, Winslow 2013). As Malthouse and colleagues (2018a, p. 13) describe, "TV measurement focuses on potential rather than actual reach" because it conceptualizes attention through the proxy of likely exposure, while digital advertising measurement models of "impressions" emphasize the act of loading on a screen. Even within a single distribution channel type, say the set-top box, ownership of the data is scattered across a variety of different providers without format standards. Trying to combine data across providers results in patchworky, inconsistent information (James 2016). The result of trying to put all of these incompatible data sets into one measurement system is what one researcher called

"Frankenmetrics, because we are getting arms and legs and heads from different places that have to be sewn together...the result isn't a fully functioning entity" (Winslow 2013).

But let's say, hypothetically, that your Frankemetric does function. You've solved these problems of data equivalency, and tamed the information until you can reasonably add together viewing numbers from different providers and different distribution mechanisms under a common unit of analysis. Now you have a new problem: Are all the views across each one equal? Is an audience member watching on a television set worth the same amount as one watching on a tablet? This problem of interpretation begets many others. Does being a buyer versus a seller of ad time change your answer to the previous question? How will your measure, or the software suite it comes packaged in, break down the information further to help an advertiser decide which distribution channel they should buy ad time on? Will a network feel maligned if the way you design your solution for that suggests they aren't worth it and start calling your methodology flawed? Even if you can solve the problem of making cross-platform data commensurate enough to be a workable dataset in the barest mathematical sense, a nearinfinite number of additional design questions about the commensuration of meaning, and how you interpret that meaning shapes the relationship between the buyer and seller of ad time emerge. Part of the big data hype was its "neutrality" and the fact that supposedly, "the path of interpretation between the data and its meaning is short" (Puschmann and Burgess 2014, p. 1701). But as applications like this make clear, the existence of big data sets doesn't present the solution without a great deal of work. The information has to be manipulated, molded, and processed. Design decisions have to be made. None of these are neutral. In creating a transactional standard, all parties are on the lookout for how any decision disadvantages them.

While the idea of commensuration, broadly conceived, is probably the biggest obstacle to creating a cross-platform currency it is far from the only one. One problem that measurement professionals have put a great deal of effort into designing algorithms to tackle is the issue of deduplication, or ensuring that individuals who watch something on multiple platforms only appear once in the measure. Considering this interest in individual viewer identity, privacy issues, too, are a potential hurdle. The level of de-anonymization that must be done to link data sets for purposes of creating such measures is significant; even when technically separated from "identifying information" (i.e. real names and addresses) such separation becomes functionally meaningless as more and more data sets are linked together (Turow and Draper 2012). Although consumer data protection laws in the US are relatively lax, there are many who believe that this violates regulations and have filed complaints with the FCC and FTC about the level of data collected by MVPDs, and especially the practice of combining that data with third party data sets (James 2016). With the current regulatory environment more favorable to business than privacy concerns, these complaints do not seem to have had much effect. The intermediaries like LiveRamp who provide the service of linking individual audience member profiles across different data sets (for both the television industry and others) go by the less than coy moniker of "identity resolution providers."

The fact of the disparate data sets in and of itself also presents a problem. Because the data is owned by many different stakeholders, creating a measure that tells you about *all* cross platform viewing and not just a particular slice requires a certain level of cooperation between competitors without providing much incentive for such transparency. While there are arguably ways to work with data from a limited number of cooperators and create a meaningful measure—though there is little transparency about the algorithms and data cleaning involved,

this the goal of the "fusion" methodologies" briefly described earlier—both advertisers and networks have seized on perceived elisions and lacks of transparency to question the veracity of proposed measurement solutions. This is the opposite of what is needed for a useful currency, which requires authority and buy in across a wide range of stakeholders. Recent attempts to create new measures that reflect contemporary viewing habits have debuted into an environment of skepticism that quickly deteriorates their promise amidst power struggles.

The troubled launch of a Nielsen product called Total Content Ratings in 2016-2017 provides a good illustration of how any promise of an emerging standard quickly deteriorates amidst power struggles, preventing a functional cross-platform measurement standard that everyone can agree as a transactional standard on from coming to market. Though Nielsen said in the aftermath that the TCRs were never intended to be a "currency" per se because they marked a return to measuring viewership for program content instead of the commercial minutes tracked by C3/C7 (a claim that does not fully track with pre-launch rhetoric about the impact the new measure would have on upfront transactions), the expectations set ahead of release were that this would be a much-needed missing piece of the audience information puzzle. Even if it wasn't directly transacted on, it supposedly held potential to be a cross-platform measure that everyone could agree on. But both advertisers and networks were so vehemently displeased with the product it forced the measurement firm into a rare full-on retreat. The TCRs were intended to compile viewership numbers for programs across linear TV, DVR, VOD, connected TV devices, mobile, PC, and tablets with a full launch of the ratings in March 2017. Ahead of this, they planned a late 2016 soft preview with network clients (who had to do a lot of expensive encoding of content to become compatible with the methodology), and a January-February 2017 test of the data and related toolsets with advertising agencies. However, as the networks started to work

with the TCRs, they became concerned about Nielsen's methodology, in particular the claim to "totality." Nielsen had not at this point secured partnerships with Hulu or certain other pay TV providers, in particular the emerging virtual MVPDs (e.g. Sling TV, YouTube TV) that offered live streaming bundles as an alternative to cable or satellite. Given these absences, a number of networks insisted that the new methodology was still undercounting their viewership significantly.⁴

Led by NBC's ad sales chief Yaccarino, a group of networks pushed back against the product, asking Nielsen not to launch it, citing serious concerns with methodology. While Nielsen maintained that the methodology was robust, they caved to the networks surprisingly quickly (Poggi 2016, Reynolds 2016). Instead of releasing the version of TCRs they had planned to the agencies in January, Nielsen let the networks customize what data the advertisers would be able to see about their viewership, blocking anything they were unsatisfied with entirely. This let the networks entirely set the terms of the information environment and did little to create trust in the new measurement standard. For their part, upon seeing the tool, advertisers were less than impressed—even bracketing the issue of the cherry-picked information. They said it told them nothing about what they actually wanted to know: who was seeing what ads where and actually marked a step backward for trying to measure the viewing of commercials (Poggi 2017a).

For all the complexity of bringing immense data sets together and trying to make them commensurate, Nielsen hadn't managed to solve either side's problem with the existing currency. In some ways, by rolling back certain changes of the C3/C7 standards, they had made

⁴ Notably, during this test period, when Nielsen temporarily retracted some of their findings to investigate specific claims of undercounting in live streaming at ESPN, they ended up ultimately reaffirming the initial estimate. It is not completely clear what this means about either network skepticism of the TCR's omissions or Nielsen's methodology; it would largely seem to indicate that in this contested situation, both sides were interested in standing their ground.

existing issues worse. Despite merging datasets at an impressive scale, they had deployed claims of totality in ways that still left networks believing themselves undervalued, while still failing to provide clarity for advertisers about what they were buying. In the aftermath of the controversial soft launch, Nielsen did a limited launch instead of the planned full release of TCRs in March 2017. Later in 2017, they secured two of the most controversial missing partnerships in Hulu and YouTube TV's virtual MVPD, adding them to the Digital in TV Ratings, one component of TCRs (Munson 2017). As part of a broader "Total Audience Measurement" audience data tool that Nielsen offers clients, TCRs get internal use as a planning tool (Lynch 2017, Reynolds 2017), but the controversy around their launch seems to have tainted their ability to ever be seen as widely or comparatively useful. Yet the failed launch is highly illustrative of the challenges that the task of using advanced audience information to build a new currency faces. Making data sets work together into a measure is in and of itself horribly difficult. But doing that by itself isn't enough to create a system that solves the problems of the existing currency. How the measurement presents information will set the power relations of the transaction, and to gain purchase with a variety of stakeholders who have different interests, a new measure must face the methodological challenges of building something valid while remaining sensitive to how they will feel empowered or disempowered by it.

Beyond Nielsen, other stakeholders have tried to offer alternative ways to solve the problem. GroupM, a subsidiary of agency holding company WPP and the largest buyer of TV ad-time, which played a pivotal role pushing in the move to a currency based on commercial minutes during the 2000s, is one such stakeholder. GroupM's proposal, called "Unified C7", generated much discussion if very little interest in actually taking it up when I was in the field in 2017. GroupM argued that given all of the problems in trying to make apples equal oranges to

create a standard measure the best thing to do was to move the industry to a standard practice of running identical ad loads on all platforms for the first seven days. This, they argued, would make it possible for measurement to become standardized and transparent while capturing all types of viewing behavior in a way that was focused on advertising exposure. It would quickly solve the problem of cross-platform data commensuration by quickly creating a standard unit of analysis. Since the environment of mistrust makes many hesitant to go all in on a single currency again, the openness of this solution also affords for multiple measurement firms to co-exist and vet each other's findings without fracturing the market. It would also quickly create a common unit of analysis that would more easily allow the measurement industry to explore the power and relevance of other dimensions that distribution technologies can now capture in order to figure out what the real value of various types of advanced audience information is. GroupM never presented United C7 as a permanent fix. Much like the initial implementation of the C3 currency, they saw it as one that could buy time to make better sense of today's complex audience information environment. As the company's research director explained, with this plan "we don't have to rebuild planning and buying systems, we can just slot it in there and stem the bleeding...instead of waiting for the next gun to our head, it gives us time to get ahead of the game in a thoughtful way."

But while these elements of the logic of GroupM's proposal make it a good conversation starter, few saw it as an implementable solution. Neither marketers nor audience members want to engage with every platform the same way. Marketers want to take advantage of the affordances of non-linear TV platforms to employ different creative and superior targeting.

Audiences often turn to devices other than the TV set because they expect a lighter commercial load. And many advertisers are already frustrated with the expectation that they buy space for

time-sensitive messaging on a C3/C7 basis. The ad encoding required would also be incredibly expensive and labor-intensive for networks to implement (Poggi 2017a, Steinberg 2017), which is a major drawback for a measure designed in many ways to maintain the status quo while other approaches catch up.⁵ Ultimately, this proposal was highly generative of conversation about the scope and facets of the problem area but did very little to actually move the needle. As one buyer told *Advertising Age*: "It's a blunt tool to get at a nuanced challenge. I don't think the execution is the right one but bringing the concept to the table is right" (Poggi 2017a). While GroupM's proposed measure was never as contentious as other examples of cross-platform measurement like the Total Content Ratings, it was also never quite taken seriously because of its simplicity.

The inadequacy of these approaches raises some questions about what a currency needs to offer and whether that is actually compatible with what big data offers. A television currency is "money by which to buy and sell an otherwise invisible product" (Buzzard 2012, p. 1): the audience. As this chapter's opening anecdote from the Advertising Research Foundation conference indicates, a major concern felt by those in the intersecting fields that make up the television advertising market is the loss of measurement transparency and the concomitant loss of trust in each other. At ARF and other conferences and talks I attended, a constant recurring theme from the talks to the lunch table conversations was the conflict between the desire for innovation and the fact that there is so little transparency in data science. How can you trust, much less transact on, a measurement when you cannot comprehend how it was constructed? The dominant metaphor for explaining the complexity and secrecy endemic to big data and algorithmic culture is "the black box" (Pasquale 2015, Seaver 2017). More practically, since "devising and revising systems to understand what captures user attention is a labor- and

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⁵ Networks also already made such a heavy investment in encoding (program content) for the ultimately disappointing Nielsen TCRs.

resource-intensive process, requiring large data sets and complex math" (Christian 2018, p. 243) there is little incentive to be transparent about techniques, resulting in a culture of proprietary information and methods. And this perhaps is above all else what is preventing big data from building: a currency for buying and selling an invisible product cannot itself be invisible. In one trade article, an audience researcher played off of the black box metaphor—for audience measurement, it may prove to be more like a black hole, sucking in efforts and labor across the field while producing little of value (Winslow 2013).

In lieu of a united cross-platform currency, what has tended to happen instead is that each stakeholder develops its own suite of data analysis tools, typically a combination of in-house creations and analytics firm products. This results in a landscape characterized by a hodgepodge of different interpretations of a variety of different datasets. When data becomes *too* granular, you can construct all kinds of narratives about the audience it describes. And when each party in a transaction has access to different highly granular data sets, this sets up a situation that is difficult to reorganize back into a transparent market. If every stakeholder can look at the data in ways that tell the story most favorable to them, it shifts the balance of power in advertising transactions tremendously.

Copying the Disruptive System: Addressable TV

While the "new currency" imagination of how data could resolve the currency crisis has largely been stymied by methodological difficulties and struggles over transparency, the parallel pursuit of an approach that tries to copy what digital advertising offers is far more achievable from a practical perspective. Technologically, this is a far less difficult proposition than a crossplatform currency. By 2018, a version of it certainly existed—or really, multiple versions with control scattered across different stakeholders, but capable of reaching 65 million US households

if still a low single-digit percentage of TV advertising buys. These buys were, for the most part, of television's lowest value ad space, mostly either local inventory or ad space in cable VOD offerings once the obligation to run the original ad load had expired. "Addressable TV" (or "programmatic TV," I'll unpack some of this area's complex and overlapping terminology in a moment) invokes a version of television with digital-style ad exchanges, automated buying and selling of airtime, ad personalization or at least targeting against advanced segments, and potentially dynamic real-time ad insertion. Though the conventional wisdom at the trade shows and conferences I attended in 2017 was that eventually television advertising would transition fully to this model of transacting, its moves toward such a reality have come in fits and starts, often only reaching for one or perhaps two of these characteristics. But this is not, as you might expect, because of a lack of technical capability. Rather, it is because addressable approaches find themselves at odds with dominant imaginations of television advertising. Although there is much rhetoric about how a move to digital-style would be good for everyone—leading to increased effectiveness for advertisers and increased pricing of ad slots for networks—few stakeholders seem to actually believe in it. Neither advertisers nor television executives seem to like the implications of computational advertising for themselves and what they have to offer in practice.

The terminology of the computational television advertising space can be somewhat overwhelming, especially because as I and various industry commentators (e.g. Shields 2016) have observed, there is a certain amount of slippage in the ways television industry stakeholders employ them. There are three key terms in particular that I want to unpack and discuss the

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⁶ Though technologically enabled in 65 million homes, this is quite early days. Notably, regulatory and infrastructural conditions around digital distribution and bandwidth have enabled this at a substantially larger scale in the US than in any other country; it is not, at this time, nearly as technologically possible to run addressable advertising on television anywhere else in the world.

relationship among: programmatic tv, addressable tv, and advanced audience segmentation/targeting.⁷ Programmatic TV is typically the umbrella term under which the others are grouped and is most loosely employed; "programmatic" itself refers to the automated buying and selling of ads according to preset criteria on an exchange. Addressable TV is a subtype of programmatic, in which the advertisements are not just bought and sold on the exchange, but also targeted to particular data profiles based on advanced audience segmentation—defining audience segments based on criteria like 'new mothers' or 'cruise enthusiasts' rather than demographics like 'women 18-34'. However, while in ad tech language, addressable = programmatic + targeting, tv executives seem to play looser with the terminology. They will sometimes use "addressable" simply to indicate that advanced segmentation and targeting have been involved in planning, as well as a host of things that fall somewhere between that and "true addressable." This slippery usage of terms can make separating hype from reality in computational advertising extremely difficult.

While advanced segmentation and targeting are on their face probably the simpler ideas to understand given their relationship to existing advertising norms, the way they have been deployed during this potentially transitional period is by far the most difficult to untangle.⁸ In working towards fully addressable television as a goal, advanced segmentation and targeting have often been separated from the programmatic process.⁹ When this happens, networks and

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⁷ I am outlining a few key stakeholder types and terms in the computational TV advertising space relevant to my argument, but there is a vast terminology and many more kinds of stakeholders beyond the scope of what I am discussing here. A brief but accessible resource that I have found quite useful in laying out the broader picture of definitions can be found on the company blog of an adtech firm at http://altitudedigital.com/company-blog/programmatic-tv-definitions-projections-and-resources/.

⁸ It is also difficult to understand because of the contested nature of defining identity through data, and the difficulty of operationalizing people through such complex categories. For a good critical account of how big data is used to create such 'measurable types,' see John Cheney-Lippold, *We Are Data: Algorithms and the Making of Our Digital Selves*.

⁹ At the same time, as Turow (2009) notes, there have been ways to target messages using database techniques in blocked ways (for instance changing the voiceover in a car commercial to point you to the local dealership by zip

buyers use various data analysis tools (the hodgepodge of solutions discussed at the end of the previous section) to identify where a particular advanced segment is located in the viewing audience, and then negotiate an advertising deal in the traditional way. Sometimes the data analysis is simply used to identify a television program, and the deal for the advertising slot is made against traditional Nielsen currency. Increasingly, however, networks will instead guarantee the audience segment against their in-house audience analysis tools (e.g. Poggi 2017b). While programmatic and advanced segmentation have often been worked on separately, the ultimate goal of the digital-style computational approach is to merge them into fully addressable TV that will automate the process and serve relevant ads in real-time. Here, however, the question arises of whether addressable television actually offers a solution to a problem that ad-supported television has, or is simply an example of hype leading to the unnecessary application of an incompatible approach.

While the technology enabling all of this has been in a consistent state of evolution and development through much of the 21st century, elements of it have been possible for much longer than you might expect. In fact, Google attempted to bring a programmatic product to television as early as 2006, developing a "TV Ads" product for its dominant AdWords digital advertising platform. The Google product was admittedly not fully functional at its launch in 2007 (and never fully delivered on everything it hoped for by the time it shut down), but it brokered partnerships with Dish Network, local cable ops in Northern California, and—in its biggest get—NBCUniversal, which let Google handle scatter inventory on its portfolio of cable networks (minus the flagship USA). These partners were attracted by the vision Google presented of aggregating demand on niche channels that fall off the radar on their own, then using data points

code) for quite some time. Fully addressable television would make this achievable at the household/device/possibly or "ideally" even person level.

gathered from set-top boxes and remote control clicks to build metrics showing ad performance and using those to choose which ads to show and set pricing in real-time (Morrissey 2008).

Notably, the Google TV Ads approach was different from current programmatic strategies in that it sought to match prospective advertisements to keywords related to show content—today's approaches focus on delivering ads to the correct audience data profile, usually in content-agnostic ways (Lafayette and Whitney 2008, Malthouse et al. 2018b). Despite those few early partnerships, the industry's general response was pushback at all levels—networks, MVPDs, and advertisers all generally viewed Google's proposition as a horrible one for their business, and were reluctant to let TV advertising fall prey to "Googlization" (Morrissey 2008). Advertisers also saw it as a way to push worthless inventory on them (Whitney 2006). Even for those who had signed on, it did not appear to be promising. In 2010, NBCU backed out of the deal, and by 2012, Google closed down the effort entirely.

Although approaches to computational advertising in television have changed substantially since this early effort, the resistances and roadblocks that it faced are quite similar to the ones that have plagued later efforts. Because different aspects of the addressable process are controlled by different stakeholders with different interests (Lotz 2014, Malthouse et al. 2018a), its feasibility is highly dependent on unstable partnerships, and the whole thing can fall apart when one party no longer feels served. MVPDs own the technology for making addressable possible, while networks control the vast majority of advertising space inventory. The tiny amount of advertising space inventory that MVPDs control themselves—which is where the majority of programmatic and addressable transactions currently happen—is generally viewed by advertisers as less than desirable space. Google's plan was briefly intriguing on a small scale because it was able to broker a partnership for more inventory—it was scatter inventory on niche

cable networks, so far from the most valuable time available--but more valuable than the remnant (and sometimes local) inventory that is typically available on current programmatic exchanges. It was also built into a system that many advertisers already relied on to run digital campaigns. However, it fell apart—as did a few other contemporaneous efforts in programmatic, most notably Canoe Ventures, sponsored by a consortium of cable operators—because of a lack of buy-in from those who saw the digital approach as culturally incompatible with television advertising.

Despite problems of fragmentation, television advertising still possesses something of a rarefied reputation as a particularly premium product in the advertising marketplace. Adsupported television executives obviously have an investment in maintaining the idea that running an ad on TV is a particularly powerful marketing tool. One argument television executives make to justify this claim is that television audiences are more invested in the programming, and thus more likely to pay attention to the embedded advertisements. They also argue that "quality" audiences are more likely to be found on TV. Considering that digital advertising suffers from issues with bad traffic and brand safety, there has been consistent concern that a move to a more digital-style approach will degrade the product of TV ad time. For many working in this space, there are also fears of their own obsolescence. In digital advertising, as ad-networks and exchanges took over, traditional media buying firms struggled to find their place and found themselves becoming obsolete (Turow and Draper 2012). Should these norms take strong root in TV, it is likely that many of the current positions related to ad buying and selling would similarly fade away. For this reason, advertising agencies are reluctant to embrace programmatic models, while networks are concerned about alienating agencies. These cultural resistances have remained consistent even as the technology has developed to functionality.

From 2015-2018 in particular, substantial technical strides toward an addressable reality were matched with substantial cultural push-back. When a number of programmatic announcements from 2015 that were supposed to make waves in 2016 failed to deliver, it sparked conversation about whether this was even a useful development (Lafayette 2017, Shields 2016). A large part of the proposition of programmatic is that it automates the ad buying and selling process. As Shields (2016) notes, that wasn't really the problem that ad-supported television was hoping to solve by applying data methodologies. Generally, agencies and networks are satisfied with the process, but frustrated with the way that audiences are represented. During this time, a number of networks and agencies debuted data analysis tools for advanced segmentation that were incorporated into planning, but lack of transparency was again a problem, as each stakeholder had their own approach. In 2017, Turner, Viacom, Fox, and eventually NBCU joined forces to form Open AP, a consortium to create a standardized system for advanced segmentation, but while the move was buzzy at the time, it ultimately made little impact (Shields 2017). By late 2018, it was expected that Open AP would eventually disband in favor of individual solutions.¹⁰

In 2017 and 2018, there was also some increased testing of true addressable, including a particularly high-profile partnership between Nielsen, CBS, and A+E Networks to run addressable with full dynamic ad insertion in linear programming in five markets (Lynch 2018). This pilot was announced during the 2018 upfronts, which were otherwise distinguished by networks repeatedly slamming digital advertising approaches for not being up to the standards of television (Guthrie 2018). This theme carried over from the previous year—in 2017, executives at upfronts emphasized that television could offer a brand safety that digital could not. Just

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¹⁰ In April 2019, Turner became the first Open AP partner to officially jump ship.

weeks before, a number of companies had pulled ads from YouTube after scandals involving their ads running with alongside racist white nationalist content. In 2018, Facebook's Cambridge Analytica scandal offered yet another angle of critique. Even as true addressable advertising became a reality, executives argued that the best way to maintain ad-supported television's distinction was to differentiate it from "lower quality" ways to advertise, not by adopting their practices.

Experts continue to predict that fully addressable advertising is the future of ad-supported television. In 2019, another, even larger industry network consortium, OAR (Open, Addressable, Ready) formed to try to negotiate the transition toward addressable together (Poggi 2019). Smart TV penetration rates are on the rise; these devices make addressable advertising even simpler than the version run through set-top boxes. Google has recently restarted efforts to provide a programmatic TV offering. But even though the 65 million US households currently equipped for addressable is a figure that will continue to grow, cultural conflicts about whether television advertising *should* work like digital remain. While the level of cooperation between different stakeholders required is not as extensive as that required to create a new currency—multiple digital advertising exchange systems could reasonably co-exist—there is still quite a bit required. Primarily, networks must make advertising inventory far more broadly available on exchanges than they currently seem willing to do.

Perhaps one path that might make digital-style computational advertising feel more compatible with the television's ideas about what it means to advertise on TV is a return to some aspects of early programmatic ventures like Google TV Ads—specifically, the fact that they were not content agnostic. Contemporary addressable (in its fullest form) promises access to an audience segment with no promises about where that audience might be found. This is where

brand safety issues are introduced. That keeps advertisers and thus ultimately networks from getting too invested. There is some evidence that content pairing matters more in programmatic television advertising (Malthouse et al. 2018b). And, albeit in a context where they are supporting a very different business model, Netflix seems to have had great success moving its data analysis models and recommendation models from a pure behavioral model to one that integrated behavior with content features (Finn 2016). Still, whatever approach is taken, any actual implementation of addressable advertising means that longstanding television business relationships and norms will have to be reconfigured. And though there has been much hype around the idea that television advertising going computational is an inevitability, the resistances this approach faces suggest that some consideration of whether this approach actually solves any problems or simply complicates relations between key stakeholders is merited. This approach was designed for a much more distributed market. Advertising exchanges make sense on the internet because of how vast the space is, how many publishers, how many advertisers, how many places to put ads. While addressing fragmentation is something that any solution to the currency problem needs to do, concluding that television advertising has the same properties as internet advertising seems premature.

Can Data Be Used in Ways that Fit the Business Model of Ad-Supported Television?

To return to the Advertising Research Foundation's 2017 conference, I want to reflect on a remark that Turner Broadcasting's research chief Howard Shimmel used to open a panel about the challenges of big data measurement he was moderating. He said that, before you devise a measurement, you have to think about what business model that measurement is supporting. In some ways this is a quite banal observation, but also one that I think is worth unpacking.

Measurements produce audiences (Ang 1991, Meehan 1993). The television industry produced

audiences through a ratings currency so that it could buy and sell them. If, as Lotz (2014) and Koesterich and Napoli (2016) conclude, we are past the time of one dominant currency, and the US television industry is in a place where it needs to have multiple ways to approach the value of programs and audiences, this is incredibly disruptive. In its present state, the underlying economy could be shifting from one of currency to one of barter, where each stakeholder uses their own data to construct their own narrative of value and try to use that as a transaction standard.

It is hard to compare products without transparency or any unified standard. When experts in the field speak of trying to bring "order" to the "chaos" of how advertising transactions have begun to be conducted, I am not sure that they can do so when they are depending on big data with its near limitless "interpretive uncertainty" (Petre forthcoming). Perhaps transparency and standards are coming. My goal here is to depict the struggles of a moment of transition, not to predict the future. While certainly to some degree these struggles can be accounted for by the difficulties of working with large amounts of data or moments in time when the technology was not yet there, I also think that the limited imaginations of how to apply data to the currency crisis have stifled its potential to transform operations as meaningfully as anticipated. By only imagining updating the old way of doing things and/or trying to be more like internet advertising, many in this sector of the American television industry have not thought about how to meaningfully blend what this data affords with both the business model and the medium specificity of television in a useful way.

These failures to create a successful blend also offer insights into the limits of datafication. Like any method, big data approaches need to be matched to the question. When the scope of the problem to be solved has been imagined and then the data is applied later, it can be

hard to make it fit. Conversely, when the data hype gets ahead of the problem, you may end up "solving" problems that were not there without addressing the core issues. Additionally, it is hard to put datafied information to work in situations where you are trying to create a relatively equitable arrangement among a variety of stakeholders.

Putting Big Audience to Data to Work Effectively: Alternative Data Imaginaries and Critical Implications

While these methods of employing audience data have not seemed particularly successful for ad-supported television, it does seem unlikely that, amidst all of this new information about television audience behavior, there is not something that these businesses could leverage. As a contrast, it is worth briefly considering how the businesses that have been more successful in gathering and deploying audience data are situated in other conditions and other imaginaries. While the legacy ad-based tv industry struggled to figure out how to work with audience data, companies like Netflix and Amazon started successfully leveraging it to enter the industry. Being separated from preconceived notions about what "television" should be or how it should be structured—as well as having different business models to support—these digital endemic companies were able to envision—and importantly, to control—audience data differently than legacy ad-supported networks. In the ways that they employ audience data they offer some illustration of the way that different conditions enable alternative imaginations of how television audience data can be employed.

Though Netflix and Amazon's television arms are both technically run on a subscription business model, it is worth unpacking some differences in their business arrangements. Netflix operates on a pure subscriber business model as a one-sided market. While they initially distributed only content from legacy producers, Netflix moved into content production in 2011.

Netflix's first content deals originally positioned them as a distributor (i.e. network in legacy industry parlance) purchasing/licensing content from outside production companies. However, in recent years, they have ramped up their vertical integration with the acquisition of studio space in a number of US production hubs and by moving the production companies of top talent in-house. However, Netflix still makes a variety of types of content deals. While Netflix has managed to capture a remarkable amount of global bandwidth while staying in a narrow lane, Amazon is a digital giant with its hands in all types of internet business operations, in particular internet infrastructure (Netflix, in fact, relies on Amazon for this) and retail. There are two significant sister divisions of the company involved in television: Amazon Studios is its production arm, and Amazon Prime Video is responsible for digital distribution. The relationship between the two is akin to that between ABC Network and ABC Television Studios inside the Disney conglomerate. Access to original television content produced by Amazon Studios via Amazon Prime Video is bundled into an Amazon Prime Subscription along with a variety of second-run content.¹¹ Although this is technically a subscription, Amazon Studios does not consider itself as serving subscribers in the way that Netflix does. As one executive that I interviewed explained, they are a "promotional arm" for Prime Subscriptions that is, he quipped, "funded by the change in Jeff Bezos' couch." In other words, all Amazon Original Series need to do to be considered successful is act as an incentive for people to purchase the overall Amazon Prime subscription, which bundles a variety of features including faster shipping for online retail purchases, a small discount at Whole Foods, and the ability to purchase Amazon's in-house brand of "everyday

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¹¹ Beyond Amazon originals and other Prime subscription content, however, Amazon Prime Video's operations are actually more complex, with multiple business models operating simultaneously. A wide variety of other content can be accessed on the service through direct purchase and ad support, as well as by add-on subscriptions to other networks (e.g. HBO) that add additional tiers of content. These tiers are slightly less relevant to my points about their approaches to data.

essentials," Amazon Elements, along with access to media libraries including that of Amazon Prime Video.

These differing business arrangements enable an entirely different approach to audience data from the start. If you are supporting a subscription rather than a transactional market, the goal is to keep individuals interested and paying their subscription fees from month to month (Lotz 2017). Instead of trying to support transactions among different stakeholders, they use audience data analysis to manage and present a better individual subscriber experience on their content portal. A key part of this is the use of the recommendation algorithm to keep the subscriber engaged with content of interest. When a user engages with the recommendation system, they are entering into a cycle of data production with the portal: their behavior produces data that produces more recommendations that produce more user behavior that produces more data and so on and so forth (Christian 2018, Hallinan and Striphas 2013). Processes of curating content feed directly into processes of predicting demand because processes of recommendation are central to "moving away from an undifferentiated mass toward an aggregation of highly differentiated micro-audiences" (Hallinan & Striphas 2013, p. 128). Providing better recommendations, in other words, helps identify the existence of niche audiences to match them to potential content, and then, once produced, ensure that content is presented to them, and keeping them invested in subscribing to the system. Unlike in the marketplace and traditional mass audience advertising, the most watched content not most valuable because of how data contributes matching individuals with the best content (Lotz 2017). In the Amazon variation, there is also interest in how interaction with the video portal interacts with the broader Amazon suite of subscription services. For instance, a 2018 leak of some internal documents revealed that the company has a particular interest in audience metrics showing what originals new subscribers watch first (Dastin, 2018). The connection between viewing and retail purchases also matters (Johnson 2018).

Equally significantly, in these cases, the data is contained in a closed system and owned by a single company. Centralizing power and control over the data eliminates the many messy issues caused by trying to broker cooperation across different stakeholders. For most of their brief history, streaming services have typically been quite secretive about all of their viewership data (Lotz 2017). While in 2018 Netflix in particular began some increased disclosure of viewership numbers, this has been very much on their terms (Ng 2019). Whoever controls the data controls the narrative. When Netflix selectively releases viewership numbers, they don't necessarily offer clarity about what they mean. When they say 40 million people watched You in a month, does that mean 40 million people pushed play? Watched an episode? Finished it? No one but Netflix really knows. The business models and data imaginaries of these companies, with their Silicon Valley DNA, are set up to work with data's affordances instead of wrestling to fit them into the box of traditional industry operations that they may not match with. The much greater success of these approaches also suggests, potentially troublingly, that it is much easier to leverage big data to make sense of audiences and markets under tightly controlled monopoly conditions than conditions of competition.

Alternative Data Imaginaries for Ad-Supported Television

But, if they moved past the approaches of trying to update the old currency system and/or copy digital advertising, are there ways that ad-supported television could work with data that leverage its affordances while supporting the business models and cultures that currently exist in this part of the US television industry? There is an additional emerging trend that seems potentially more compatible, if also potentially quite troubling from an ethical perspective. When

I was attending audience measurement conferences in 2017, the large keynote addresses were focused on problems of cross-platform and addressable, but I found myself far more intrigued by something that still had undercard billing, discussed in small breakout rooms rather than on the mainstage: advertising attribution.

Advertisers have long wanted some way to have real accountability for their television advertising dollars (Lotz 2014). Smart TVs may be the technology that finally offers it. ACR, or automated content recognition, is an umbrella term for several software processes of quickly identifying media playing on a device. Some form of an ACR application—whether enabled by a third-party provider or a subsidiary of the device manufacturer—is now typically integrated into Smart TV sets. While it has many, many functions, one thing that ACR can do is recognize an ad playing on the device, regardless of whether it came in from a set top box, the Hulu app, YouTube, or any other source. The information of which source it came in from is also readily provided by the TV.

In one example that I saw presented, researchers working for TNT wanted to track the success of their promotional campaign for the new series *Animal Kingdom*. The show was something of a brand departure, and they were hoping to draw in new audiences with a substantial off-network promotional campaign not just before but during the season. While they typically saw themselves as having the most overlap with USA, they thought this program would appeal to more "FX" or "AMC" type audiences. To test how well this worked, they partnered with an ACR software company to monitor what network or source every smart TV in the US with that software installed was tuned to when a promotion for the season appeared on screen. Then, for, that subset of TVs, they tracked how many tuned into the season premiere, as well as all subsequent episodes of the season. Though this methodology obviously cannot demonstrate

causality, their findings substantially suggested that the off-network campaign drew viewers who had not otherwise tuned into TNT at any point during the campaign, especially viewers who continued to see the ads during the season and caught up on VOD in time for the finale.

The example of off-network program promotion is a very simple version of how ACR can be used to track an ad's effectiveness. It does not involve third party data about consumer behavior or devices. ¹² Add those in, particularly matched with the services of the "identity resolution providers" who functionally eliminate any notion that the data collected about us online is de-identified, and there is a clear path to knowing that a particular person saw an ad for a particular consumer product and also purchased it at the store using their shopper loyalty card for a "discount." This use of data seems far better matched both to the surveillant capabilities of the data-gathering technologies around us and to the industry's imagination of itself as a premium ad market, because it is a way to *show better results*. While the room where I saw the TNT presentation in 2017 was relatively empty, I was not surprised to see that advertising attribution was, a year later, an increasingly hot topic in trade discourses about data and advertising (e.g. Berg 2018, Lafayette 2018, Munson 2018).

Of course, it certainly remains to be seen whether the attribution approach has staying power. Its embrace of a vast surveillance apparatus has been a significant target of privacy advocates, who believe that these practices are at best unethical and at worst illegal. Inscape, now a subsidiary of SmartTV manufacturer Vizio, is generally considered the industry leader in ACR technology, and has been followed by controversy for its poor consumer protection practices for years (Angwin 2015). ACR can be disabled on most devices, but its default setting is "on." But suppose attribution does last, and does become the dominant way that the ad-

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¹² When presented, the study did include some findings that came from a representative panel inside the data-set where households opted in and created a household device and person map, but I have not focused on those here.

supported sector of the television industry thinks about audiences. It seems like this is something very different than the measurement of attention, or even the careful calibration of the right message to the right person at the right moment in a programmatic exchange. In an imagined future where attribution becomes the way that networks made promises to advertisers, the audience becomes something very different. Instead of something to be measured so that their attention can be bought and sold, the audience is something to be followed across devices and stalked across both virtual and physical space.

Chapter 3 Storytelling Between Art, Audience, and Algorithm

At the Tribeca Film Festival in 2014, WNYC public radio hosted a panel discussion called "Stories by Numbers" featuring Beau Willimon, the writer behind Netflix's House of Cards, and David Simon, the creator of HBO's The Wire and Treme. The two were scheduled to discuss the use of big data in television's creative decision making. The panel was set up as a clash of the titans between Willimon, the slick disruptor whose data-driven hit had already been mythologized as a triumph of algorithmic creativity, and Simon, the crotchety old-school visionary who trusted his own gut instinct above all else. But after just a few minutes, it became clear that the two writers were far more on the same page than the organizers had anticipated, with both emphasizing the ways they followed their own creative visions rather than audience information in making storytelling decisions ("I don't care what the audience thinks at all...that's why television was a juvenile medium," growled Simon; while Willimon offered a more measured statement about trusting his own instincts). "I'm not trying to be difficult," Willimon finally told the NPR moderator, who continued to press him about the ways Netflix's data insights informed his storytelling practices, "but I genuinely don't have access to any of that data." (WNYC 2014). Finally, Willimon talked about a kind of audience data that he was interested in: the 1- and 2-star reviews left behind by people who didn't like his show. It was a kind of instant feedback telling him that he "didn't communicate something clearly because it wasn't received as intended."

This panel discussion—which ultimately offered a variety of rich insights about what it means to write television in a time when "data" is king and the audience is always just a few clicks away while also utterly failing to live up to its anticipated premise of a debate over the virtues and vices of letting algorithms guide the creative hand—offers a crystallized microcosm of much of what emerges when introducing advanced audience information into the creative processes of television. The panel's fundamental question sets up the opposition between technology and creativity that serves as the starting point for most industry discussions on the subject. In Simon's disavowal, there is a sense that advanced audience information is perceived as a battleground where television's culturally devalued past might overtake its more respected present. Willimon's rationalization of his curiosity about audiences that reject his work as being about whether he is getting across what he thinks he is offers the suggestion that advanced audience information can actually be made sense of in ways that reinforce creative identities rather than threatening them. But perhaps most crucially, the panel's failure to deliver the fight it promised shows that the alchemy between algorithmic technology and TV writers is far more unstable and unpredictable than it seems on its face.

This chapter explores the negotiations through which algorithmic technologies are reshaping the storytelling practices of American scripted television. Just as the previous chapter showed how advanced audience information has not been effective as a solution to the audience currency crisis when simply plugged into and used to modernize old systems, this chapter shows that industrial anxieties rooted in network era thinking are a poor predictor of the ways that it has actually come to reshape storytelling practices. While television's storytellers express fear that advanced audience information will serve as a regulating force imposing severe limits on their creativity, examining the spaces and moments in which they engage with this information reveals

something more complex. Social media and data analytics certainly enter into the processes of television storytelling and impose certain constraints, but the responses that television writers have to them show that writers are making sense of advanced audience information as a tool for working through their own senses of identity and purpose.

To be successfully incorporated into Hollywood cultural production, big data and social media must be made sense of in ways that mesh with existing industrial value structures. In the case of storytelling practices in a medium whose practitioners feel that it only recently attained "artistic legitimation" (but who cling tightly to this artistry as part of their identities), this means positioning the use of algorithmic technologies in ways that are understood as creatively freeing rather than constraining. Big data and social media reshape the way that television storytellers see their work in ways subtle and unsubtle. While there are a variety of examples illustrating how this plays out in the working lives of television writers, here I focus on two key narratives that emerged over the course of my fieldwork which position advanced audience information in relation to storytelling practices—one about data analysis and one about social media feedback. Though the particulars of these two narratives are quite different, they also have many parallels, both types of technologies introduce similar anxieties for television writers. While these anxieties make sense in light of television's history, writers' expectations about the negative impact that algorithmic technologies will have on their creative environments are not really reflective of what actually seems to happen as practices shift following their introduction. The reconciliation between algorithmic logic and creative values through which these technologies are incorporated and made sense of in the writers' room engenders both creative responses and unexpected forms of what John Caldwell (2008) calls critical industrial reflexivity.

The Anxieties of Network Era Thinking: Television's Artistic Identity and the Threat of Advanced Audience Information

When advanced audience information enters the writers' room, it comes into a space where people have many preconceived notions about its impact. The television writers I interviewed expressed fairly uniform anxieties when discussing the relationship between social media, big data, and their creative practices, specifically, that they perceived advanced audience information as a potential threat to their creative autonomy. While the later sections of this chapter discuss the ways in which the realities of the interaction between advanced audience information and storytelling practices fail to map onto these anxieties, I first want to establish the industrial conversations that have emerged around these issues, and contextualize them in broader historical and contemporary discourses about television's cultural status. As Derek Johnson (2014, p. 51) argues, "industry professionals understand their work and lay claim to specific kinds of identities and cultural capital by taking up positions in relation to their audiences, situated within specific sociocultural shifts that alter the way audiences are imagined and understood." Today's television writers work in an environment in which the way that audiences are imagined and understood has evolved not just in relation to new technologies, but also in relation to intertwined shifts in television's cultural cachet, which have allowed them to publicly claim the identity and cultural capital of "artists" in a way that their predecessors could not. Where advanced audience information regimes intersect with this broader discourse, they are anticipated as a threat to artistic identity.

American television's cultural position was historically that of a popular medium, seen as unsophisticated and set in opposition to higher forms of culture (Gray and Lotz 2007). In popular discourse, it has been treated as "a 'vast wasteland,' a drug, or junk food" (Tryon, 2015, p. 104).

Industrial formations of the network era, including the dominant audience information regime of the Nielsen ratings, created and reinforced this perception. The technical properties of this version of audience knowledge, the imaginaries it encouraged, and the market formations it facilitated all played a role in subordinating television as a lower cultural form. In the network era, the three major broadcasters competed over and split a mass audience between them, with their ability to draw and charge advertisers directly tied to the proportion of the Nielsen ratings they were able to win. Because the market in which television operated consisted of three entities competing against each other for the highest ratings, the audience was primarily imagined through the size and share measures by provided by Nielsen. Quantity was by far the audience's most salient dimension, and the pursuit of quantity shaped programming strategies and content. Under these conditions, the most desirable forms of content were those considered "least objectionable programming," in other words, content that was broadly appealing and unlikely to alienate any audience segment. Victoria Johnson (2008) argues that an audience imagined through this lens is understood to have bland, undifferentiated taste. Although valued for its status as a "majoritarian market ideal", this audience is simultaneously devalued for its lack of cultural capital. Programming created to appeal to such a tasteless mass is thus discursively positioned in opposition to ideals of artistic merit and creativity. Additionally, as Elana Levine (2007) notes, the industrial practices the three major American broadcasters used to draw audiences during the network era were characterized by similarity and inter-network imitation. Thus, while television writers were as central to the production process as the writers of today are, the market imperatives of the time—which was influenced by how the audience could be imagined through the dominant audience information regime—limited their cultural status as artists and creators (Banks 2016, Newcomb and Alley 1983, Perren and Schatz 2014).

As cable and eventually internet distribution made the competition for audiences more complex than simply dividing a pie into three broadcast network pieces, however, fragmentation provided the opportunity for the industry to reconfigure its notions of desirable content, a move that dramatically transformed the cultural status of writers. As Amanda Lotz (2014, 2018) argues, the movement towards "narrowcasting" aimed at more specific audiences shifted television's cultural function, diversifying both the types of texts that could be produced and the industry practices that created them. During the resulting boom in scripted television content from the late 1990s onward, the medium acquired a new respectability. Popular discourse spoke of a new "Golden Age of Television" featuring "complex" (Mittell 2015) narratives that rose to the level of other art, providing television with a new legitimacy (Newman and Levine 2012). An increased perception of the television text as something that was "authored" was key to this transition (Mittell 2015, Newman and Levine 2012, Perren and Schatz 2014). Thus, in this environment, the figure of the television writer acquired a substantially different cultural position in which it became broadly seen as an artistic figure with authorial credibility (Banks 2016). During this period, there was a dramatic rise in high profile writers. This began with brand-name showrunners but with the help of social media eventually extended down through the ranks until many audience members were often familiar with most of the writers on their favorite series (Banks 2016, Mittell 2015, Navar-Gill 2017, Perren and Schatz 2014).

At the same time that television writers received this increased cultural validation of artistry and authorship, however, the combination of this shift and the rise of internet technologies significantly expanded not just the access that writers had to the audiences of their shows, but the boundaries of the job. In the digital age, numerous professional fields, in particular those understood as creative, have been subject to what Melissa Gregg (2013) calls

"function creep," or expansion into a variety of new job responsibilities enabled by digital technologies, many of which erase the boundaries between working life and personal life. In the case of television writer-producers, a group of professionals who had largely been responsible for brainstorming stories, writing scripts, and managing production processes this has meant adding the functions of entrepreneur, salesman, public relations specialist, multi-platform brand manager, celebrity, and fan community shepherd (Mann 2009). From social media and podcasts to bonus features and constant press appearances, writers are today responsible for a substantial number of ancillary content channels in addition to the already substantial task of making a television show (Banks 2016, Mann 2009, Mittell 2015, Navar-Gill 2018, Holt and Sanson 2013). The writer-producer figure now serves an incredibly complex role as an intermediary nexus in industrial practice, "engaging variably with network and studio executives, advertisers, above- and below-the-line personnel, critics, journalists, viewers, and beyond" (Perren and Schatz 2014, p. 90). As I have discussed elsewhere (Navar-Gill 2018), the expanded public profile that writers experience in this environment has in many ways afforded writer-producers, particularly those who rise to the showrunner position, new kinds of power within the industry. However, it also requires a lot of time and attention, and exposes them to both positive and negative feedback on a previously unprecedented scale.

This history of the shifts in both popular perceptions of television writers and the expectations that come with the job is key context for understanding the identities that television writers bring to their interactions with advanced audience information technologies of social media and big data. Most saliently for this project, many writers have approached the access to audiences that the digital era affords with uneasiness, fearing that writing to "what the audience wants" threatens their only recently acquired artistic autonomy and cultural credibility.

In part, this is because of the ways in which programming directed by the dictates of audience information was constructed as antithetical to artistic distinction during the network era; as David Simon's remarks at Tribeca in 2014 illustrate, many of today's writers see an unmistakable link between the ways in which their predecessors were beholden to the ideas about the audience and their lack of cultural capital. He explicitly framed his uneasiness about audience "data" in the creative process in terms of fears about the past: "When advertising dictated what you could do on television, you couldn't tell a grown up story."

Although my interviewees did not necessarily make the same explicit connection to television history that Simon did, they repeatedly invoked their identities as "artists" or "creators" in connection with dismissing the notion that advanced audience information influenced storytelling processes. For instance, one longtime writer-producer asserted, "Writers and creators with sufficient self-esteem and ego write what they wanna write. You know Twitter will respond, but it doesn't change what you're gonna do. You're gonna follow your muse. Sometimes straight to hell." Despite the fact that—as his quip about "hell" suggests—he had personally experienced substantial backlash from audiences for his storytelling decisions, he felt that it was far more significant to pursue his personal ideas than to consider how it might be received based on advanced audience information. While younger and lower-level writers were not as quick to claim artistic credibility for themselves, likely because they did not feel as established in their careers, they often attributed it to their superiors when dismissing the importance of advanced audience information, as when one new staff writer, just recently promoted from his previous role as writers' assistant, told me that his showrunner "has a very specific vision for the show...so he's not going to be influenced by that." By invoking a professional identity as artists either explicitly or implicitly via concepts like "vision" and "the

muse" and placing that identity in opposition to ideas about the audience's influence over their storytelling decisions, these writers are reasserting identity as creators. They are also maintaining an idea that persist from earlier eras of television suggesting that that audience driven storytelling is less "good."

Writers dismiss big data/analytics and social media as influences on the creative process by deflecting to their identities as artists. However, the discourses about what type of threat the two types of technology potentially present to creative autonomy—and how that threat is resolved in the minds of television writers—are different. With social media, the fear that writers articulate is about becoming the puppet of an audience that lacks their talent and professional skill. Ask a TV writer how social media impacts storytelling processes, and there's exactly one way that conversation is going to start: "I don't let social media dictate creative choices." As one of my informants elaborated: "If you do that...it doesn't help the show's story, because you are never going to make the fans happy. There is always going to be somebody who is upset...you keep giving them stuff, they are just going to keep demanding more and more." This framing of the social media audience (most writers seem to be fairly discriminating about the fact that active posters are a skewed sample of their viewers) as both insatiable and indiscriminate about what constitutes good storytelling is relatively consistent in anxieties about becoming too influenced by social media. But while everyone is quick to deny their own participation, anxiety about "listening to the social media audience" as a broader industrial practice persists. While few people could provide specific examples of a series they believed did this, the show that "writes to social media" has been deeply mythologized as something to be afraid of and to avoid at all costs. In fact, one showrunner described anxiously losing sleep turning over a story decision she

had made because she felt haunted by the idea that she might have made it because of what people on Twitter were saying. The punchline is that she did not even have a Twitter account.

While these fears about social media fans influencing the writing process have persisted relatively consistently over the past ten or so years—my interviewees voiced similar things to the conversations I heard and participated in when I was in writers' rooms from 2007-2012, and a variety of articles discussing the issue at various times over the course of the decade reflect roughly the same story—the conversation about "data" and its relationship to creativity has shifted substantially. Anxious discourse around data reached its high point in the period surrounding the release of Netflix's *House of Cards*, a program whose relationship to data was intensely mythologized in often misleading ways that suggested the program had been "designed" by algorithm (see Smith and Telang 2016). At the core of the discourse at this point in time was that the notion of data-driven storytelling—at least in theory—represents a threat to ideals of artistic originality. During the Tribeca panel that I discussed at the beginning of this chapter, David Simon expressed concerns that using big data to guide storytelling decisions would result in "paint by numbers storytelling."

This sense that data-driven storytelling would interfere in the creative process, ultimately resulting in sameness and repetition across the industry was echoed by a variety of players across the industry. FX chief John Landgraf was another one of the most vocal skeptics of data-driven creativity, telling the *New York Times* that "Data can only tell you what people have liked before, not what they don't know they are going to like in the future" (Carr 2013). Landgraf's sentiment indicates a belief that truly gifted creatives are able to come up with new creative ideas in a way that cannot be captured by predictive modeling based on the past. Now, in some significant ways, these anxious perspectives on data were animated by ignorance and uncertainty about what

companies like Netflix—which were just entering the business—were actually going to "disrupt," but they resonate with broader cultural beliefs that rationalization and optimization in cultural industries reduce the opportunity for creative risk-taking (think the endless discourse about how sequels and franchises are boring and derivative).

But if the show written to please its social media audience appears to be at least somewhat apocryphal, the data-driven television storyline has proven perhaps even moreso. By the time I conducted my fieldwork in 2017, though anxieties around social media persisted, the anxious mythology engendered by House of Cards had all but faded from industrial conversation—even as the practice of using data analytics in the management of television productions had become more commonplace. In truth, both social media and big data have a substantial effect on how television stories get told. However, it doesn't take the prescriptive shape that writers imagine when they disavow advanced audience information's influence on their creative process. As Caitlin Petre's (2015, 2018, forthcoming) ethnographic work inside The New York Times, Gawker Media, and leading journalism analytics company Chartbeat shows, when algorithmic technologies are introduced into professional spheres that are highly defined by codes of expert knowledge and specialized skills, successful adoption and integration depends on whether the technologies can be made sense of in ways that reinforce those professional codes rather than threatening them. Like journalists, television writers have very strong professional identities. And while their field's past history with audience information leads them to approach algorithmic audience technologies with apprehension, they have still entered daily production practices with less resistance than their overt rejections might suggest.

So how is this happening? In the remainder of this chapter, I examine two ways in which, even as they impact storytelling practices, advanced audience information technologies are being

made sense of as tools for *enhancing* writers' creative autonomy rather than as rationalizing or threatening it, as well as the emerging tensions that are beginning to complicate such beliefs.

Finding the Golden Ratio of Algorithms to Artists: Television Streaming Services and the Management of Data Dissonance

When Shonda Rhimes abandoned her longtime overall deal with ABC Studios in favor of a new one at Netflix in 2017, she explained the streaming service's appeal as the fact that it "provides a clear, fearless space for creators" (Andreeva 2017). Later, she elaborated, saying that, without content restrictions or ratings, the streaming service offered "a clear landscape to do whatever I want" (Littleton 2017). In contrast to those earlier visions of Netflix's brand that claimed the service "gives viewers exactly what Big Data says we want" (Leonard 2013), leading to derivative storytelling, Rhimes's enthusiasm implies that Netflix's management strategy is far more creator centered. In the four short years since the debut of *House of Cards*, our cultural imagination about Netflix and data seemed to have changed significantly; in 2017, no one pushed back against Rhimes's claims that this was about creative direction and not data the way the moderator had when Beau Willimon made similar statements on the Tribeca panel in 2014. Yet Netflix—as well as its two major compatriots in the American television streaming market, Amazon and Hulu—maintains a brand image as a fundamentally data-driven company alongside one as a creative haven for artists seeking total freedom.

Considering broader cultural imaginaries, the quantification-based epistemology of the data-driven company and its endless drive towards optimization seemingly ought to be at odds with the desire for experimentation and play bound up in notions of artistic freedom. And yet, streaming services have swiftly penetrated the American television industry and thoroughly dispelled fears that their data practices would lead to increased regimentation of the creative

process. Whether they had experience working for streaming shows or not, the dominant belief in writers' social circles, was as one of my interviewees put it, that "they just treat writers and creators better" thanks to a more relaxed management style and less taxing producing schedules. This shift in perception is in some ways simply the inevitable outcome of streaming service productions becoming less novel and thus the industry writ large developing better literacy about their practices, but it is also the result of careful discursive positioning and information control on the part of the streaming services themselves. Although the exact degree to which audience data is used in the process of supervising writing and production is broadly uncertain because of the tight-lipped way that streaming services approach the audience data they consider their most valuable resource, writers make sense of these work conditions in ways that figure the datadriven environment as enabling greater opportunities for creativity, even at times arguing that more overt regulation by data would be better for their creations. However, as streamers become a more established part of the broader television production ecosystem, spaces of friction and tension between their uses of audience data and the expectations of the creatives they employ are beginning to emerge.

Information Control and the Discursive Positioning of Streaming Service Branding and Operations

Similar to the way that Petre (2018) shows that a popular journalism analytics dashboard built deference to journalistic values into its rhetoric and user experience, Netflix, Hulu, and Amazon have each worked to perform deference to the artistic values of television production and downplay their technological innovations as a threat to creativity as they entered television productions. Taking Netflix as an example, from its entry into the original content space in 2011, the company's figuration of its own data-driven technological innovation in relation to creativity has always broadly linked cutting-edge tech to cutting-edge narrative. However, the particular

ways in which Netflix has encouraged this link have evolved over time, with an increased emphasis on human talent and the more ephemeral cultural qualities of media texts a more traditional and less "disruptive" vision of production. In the earliest days of the Netflix Originals slate, Netflix executives were quick to attribute the success of programs like House of Cards and Orange is the New Black—as well as less buzzed about but important parts of their strategy like Hemlock Grove—to their data driven environment. In early 2015, Columbia University law professor Tim Wu (2015) asked Netflix's Chief Content Officer Ted Sarandos about the mixture between data-driven decision-making and human judgement that informed Netflix's creative strategy, Sarandos described it as a "seventy-thirty mix" elaborating: "Seventy is the data, and thirty is judgement. But the thirty needs to be on top, if that makes sense." But in 2018, he flipped this ratio, telling New York Magazine's Joe Adalian (2018) that "It's 70 percent gut and 30 percent data. Most of it is informed hunches and intuition. Data either reinforces your worst notion or it just supports what you want to do, either way," even saying that there were certainly times that Netflix executives order projects that the predictive models don't justify. While "datadriven" remains the company brand, when it comes to discussing issues of creativity and artistic freedom, Netflix has increasingly deferred to—or at least performed deference to—to Hollywood norms and ideals.

This adjustment of the discourse about data's role in the creative process is in many ways enabled by the tight information control that streaming platforms have established around their data practices. These companies notoriously keep their user data close to the vest; "another curious quirk of subscriber-funded portals has been their tendency to closely guard data about viewership—even from those creating the shows they distribute" (Lotz 2017). By completely siloing data and creative functions apart from each other, even concealing basic information

about how many people watch their programming, they are able to maintain control over the narrative about how data and creative practices interact.

Ignorance is Creative Bliss? How Writers Negotiate Data-Driven "Creative Freedom"

Among television writers, the dominant interpretation of this culture of data secrecy seems to be that it is "freeing." In my interviews with writers working on streaming productions, they expressed that there was minimal differentiation between the day-to-day experience of working in a writers' room for a linear network and working in one for a streaming service. Where there were distinctions, writers described them as being related to less micromanagement of the production process. In fact, they argued that at streaming services there was less data informing their experience. For instance, one writer noted that on her previous job at the cable network SyFy, they presented the writers with an extensive packet summarizing all the audience research they had done about the show each season to let them know what they believed was and wasn't working. At Hulu, on the other hand, they had provided the writers with absolutely nothing. Among the writers that I spoke to, the sense seemed to be that if a streamer was happy with the performance of a series on the basis of viewership numbers or whatever other audience data points they were interested in, they would simply signal it by ordering more. This was largely seen as liberatory because it meant there wasn't even the temptation to become overly invested in ratings at the expense of storytelling. A common refrain among both my informants and the top-flight talent that Netflix has lured like Shonda Rhimes is the disavowal of having ever cared about ratings. This is often couched in language about that in some way reinforces the idea of television storytelling as artistically pure. For instance, in a Vulture interview about her Netflix deal, Rhimes said: "I have never paid attention to ratings because I can't control them, and ratings can never control the story. I couldn't base my story on what the ratings were, so why should I pay attention to those numbers. What I like is that now I don't have to work at a place where people believe it could be helpful for me in some way" (Adalian 2018b). The streaming environment is not without its drawbacks for writers, particularly when it comes to individual financial compensation, show promotion/branding, and the power that comes with information asymmetry (Adalian and Fernandex 2016, Izadi 2017). However, despite the immense potential that possessing vast reams of audience data has for regulating creativity, in general, as Lotz (2017) has suggested, creatives seem to feel far less regulated in the streaming environment.

In my interviews, there were three significant recurring themes in writers' explanations of why they perceived the streaming service environment in this way. The first key way that writers make sense of streaming services' culture of secrecy as enabling creative freedom is the fact that it gives them the ability to judge a series' success according to their own personal qualitative "metrics." In the vacuum left by the absence of the type of information through which they are accustomed to evaluating their work's performance, television creators develop a variety of proxy strategies for getting a sense of how their programs are being received. These may involve—among other things—browsing social media, reading reviews (from both critics and audiences), and monitoring the online thinkpiece ecosystem. There are a variety of ways that writers take this information and use it to benchmark their understanding of a series's performance. However, what is most important about these strategies for evaluating a show's success is not their particulars, which are highly individualized, but rather the ways that they align with writers' self-concepts better than quantitative measures of audience size. As a coexecutive producer from Hulu's *The Handmaid's Tale* noted, "It's weird not knowing how the show is doing, but *I feel it's doing well*. It's starting a cultural conversation" (emphasis added). For her, getting people to talk about sociocultural issues and having what she perceived as some

kind of political impact was a more personally significant barometer than the absolute number of people watching. She elaborated that working for broadcast and cable networks, you had to pay attention to ratings, whether you cared about them or not, because industrial structures forced them as a standardized measure of success. Without them, she could evaluate the show on her own terms according to whether the series seemed to be meeting her creative goals. Being kept in the dark about—or perhaps protected from—viewership data gives writers the ability to judge success by whatever it is that matters to them, be it winning an Emmy, getting a good spot in *New York Magazine*'s "Approval Matrix" column, or having women cosplay your show's signature dystopian uniform at statehouses around the nation in protest of legislation restricting abortion rights.

A second crucial thing that writers invoke to explain why they view data as a vehicle for creative freedom is *the role that data plays in the greenlighting system at streaming services*, which they argue enables them to tell stories that conventional "industry lore" (Havens 2013) would not support by demonstrating the existence of unconventional audience niches. As the previous chapter discussed, the business models of these companies enable them to value audiences using criteria other than their desirability to advertisers. This can potentially support unusual content because stories that appeal to audiences who were not considered economically viable in an advertiser-driven marketplace can be valuable under other business models (Lotz 2017). Reliance on industry lore about what audiences are viable in decision-making can reduce risk-taking, often, as Timothy Havens (2013) points out, with side effects that can reinforce certain problematic power relations about whose stories are viable in the marketplace. These ideas, however, often reproduce through industrial discourse in ways that aren't necessarily based on empirical evidence but rather gut feelings and personal experience. Data offers the

potential of evidence-based arguments for discarding conventional wisdom and acknowledging the existence of previously underserved audiences, which can be creatively freeing. While details of these greenlighting processes are rarely discussed publicly—and creators are reticent to provide specifics when asked—the example of *House of Cards* is fairly well known and illustrates the general idea of how this works. Based on data analysis that suggested a high level of intersection between groups of subscribers who watched Kevin Spacey films, David Fischer films, and the British format that the show was based on, Netflix decided that the show's likelihood of finding an audience on their service was great enough that an enormous commitment of \$100 million dollars and 26 guaranteed episodes was a justifiable risk (Smith and Telang 2016). Although the actual analyses performed were doubtless more complicated, the critical piece of information here was essentially a Venn diagram of audience groups related to the project Media Rights Capital had pitched to Netflix. Given that streaming services possess population-level data about viewing behavior, they are often able to identify audience intersections that defy intuitive prediction—as Ted Sarandos told *Variety*, "You wouldn't guess that people who like Bob's Burgers also like American Horror Story" (Spangler 2018)—this often has the benefit of enabling oddball passion projects that were considered inviable by traditional industry lore. For instance, one interviewee told me that data "allows me to take the risk of focusing an adult animated sitcom on a female perspective because...data puts the wind in my sails and allows me to think...it's different, people don't normally do this, but there's enough information out there to merit me taking this risk." Of course, when interpreting data's role in getting projects greenlit as creatively enabling in this way, creatives don't usually highlight the fact that to make arguments about the existence of unusual audience niches, you need to have access to the data. Without access to the data, they can only benefit from it on the

streaming service's terms, when an executive chooses to tell them that the evidence for a particular niche appeal exists. This is, as I will discuss later, one significant emerging point of friction between creatives and streamers.

Finally, writers note that working in the non-linear distribution format that streaming services provide eliminates the constraints of traditional television storytelling conventions, allowing them more flexibility in mechanics and more opportunity for creative experimentation. Though they have shifted in small ways over time, there have long been certain rules about how to tell television stories (Thompson 2003). For instance, commercial breaks meant building every episode's story to a series of climaxes and cliffhangers, while weekly airings necessitated checking on characters and storylines in every episode lest the audience forget. The 22 episode season had substantial implications for the pacing of serialized arcs, and given the need to make time for commercials, an hour really meant 51 minutes that gradually diminished to 42, but every episode was the same length. What the disruption of streaming services has made clear, however, is that television storytelling developed this particular syntax as a result of a temporality that resulted from a combination of distribution technology and business model. Freed from that temporality, the rules of episodic storytelling can essentially be thrown out the window. From a viewer perspective, these shifts in story syntax are the data's most easily observable impact on television storytelling. For example, episodes of the Netflix comedy series Dear White People have ranged in length from 21-36 minutes, a fifteen minute difference perhaps less acute for a binge-watcher, but clearly noticeable to a viewer who might be trying squeeze in an episode amidst a busy day (and by no means the most extreme version of varied episode length in the streaming space). Without commercial breaks, stories no longer need to have 5 separate artificial climaxes. A show that will be released all at once and likely watched several episodes at a time

can have varied pacing and intensity in the structure of multi-episode arcs, or let a plotline lie for a while without feeling like it's been dropped; as Beau Willimon has said: "When you know you have two seasons, it lets you do something in the first episode and then call back to it 26 episodes later, like a little gracenote" (WNYC 2014).

As another example, the writers I talked to from Hulu's *The Handmaid's Tale* knew that in the initial US run of the show's inaugural season, Hulu would release the first three episodes at once, then the rest on a weekly schedule. In the writers' room, they deliberately thought about constructing those three episodes so that the first two encouraged the audience to keep binging, but the third—which ended on the image of Alexis Bledel's Emily realizing she had been subjected to an involuntary female circumcision as punishment for an illicit same-sex relationship—built to a point of such uncomfortable intensity that audiences would be grateful to have a break before the next one. To credit looser expectations around story structure and syntax to "data" per se certainly conflates it with other affordances (e.g. non-linearity) of the streaming environment—not to mention the fact that plenty of other developments in television history have shifted conventions—but what writers invoke when they do so is the idea that understanding the details of how audiences consume a television series can tell you something about how to build it. One writer expressed this, saying:

"Data can shape story practice. Maybe we don't need to see a character for an episode because they'll watch the next episode right after. Sure, you could have gotten there without it, but knowing how people watch a show is creatively useful. It allows you to figure out how to pace it, have big moments, know when you can have a quieter, slower episode, not see a major character for an episode. That's interesting and worth knowing. I would like to know. I wonder why they are so closed-handed with data...some things might help us make creative choices."

What is particularly fascinating about this perspective is that it expresses a desire for *more* datadriven regulation of the creative process. While television writers explain their attitudes toward the data-driven environment as offering greater opportunities to break the rules in pursuit of creative freedom, some of the critical discourse around streaming shows has suggested that structure might be useful and the "anything goes" structure of the "10-hour movie" concept that many creatives speak of excitedly makes for frustratingly-paced narratives. That some creators are expressing the desire to make creative choices *more* informed by data about audiences suggests that the withholding the data has made it more desirable to creatives. The information gained from this type of audience data do not offer one to one prescriptive instructions about what beats a story should hit, but could—paired with expertise-guided interpretation—offer the type of structural ideas that the above quote suggests. Of course, as Petre (2018) has suggested, the more entrenched in a media industry data particular technologies become, the less they have to justify themselves in relation to existing professional norms, and potentially, the less those who wield them will perform deference to existing professional norms like creativity. Of course, this would look quite different in the context of television writing than the journalism she explored—we are a long way from an analytics dashboard for TV writers—but the possible parallels in the overarching questions remain. Namely, will creatives still interpret this environment as creatively freeing in the event that incorporating the feedback loop of viewer data becomes a regular and expected part of crafting television stories, or will they come to resent the data regulation they currently desire?

Emerging Frictions

The demand for additional access to data is not just indicative of writers' desire for increased data-driven regulation in the streaming service production environment, it also reflects some bubbling resentment around information control and the power relations it forces between streaming services and creatives. As Lotz (2017, n.p.) suggests, although streaming services may

"diminish or eliminate practices that have frustrated creatives producing for broadcast and cable, they will likely create new practices that similarly challenge creatives." Indeed, there are certainly emerging signs of creatives experiencing friction between the "ignorance is bliss" perspective on audience data and the desire for creative autonomy, as certain aspects of how data asymmetry restructures power become apparent.

The near-wholehearted belief that not knowing audience data is creatively liberating seen in my interviews is almost certainly at least partially an artifact of their timing. I conducted my fieldwork at a time when cancellation of streaming service shows remained a relatively rare occurrence. Roughly around the time I exited the field in late summer 2017, there was something of a bloodbath at Netflix, with a number of shows, such as *The Get Down* and *Girlboss*, condemned after just one season. Although Netflix execs narrativized these moves as indicative of their willingness to take creative risks (Spangler 2017), Amazon and Hulu followed suit by early the following year, axing a cadre of well-received shows like *One Mississippi* and *The Path*. These moves showed that the creative runway the data-driven environment supposedly provides is far from infinite.

While the dominant discourse that streaming services provide greater creative freedom remains even after these cancellations, there are also hints of what future conflict might look like. One particularly contentious early streaming original cancellation that perhaps portends a backlash to the notion that evaluating success without audience metrics is empowering for creatives is the case of Amazon's *Good Girls Revolt*, which was released in October 2016 and swiftly cancelled the following month. "Blindsided" producers and stars described this cancellation as sudden and at odds with Amazon's previous assertion that they were "happy" with the show's metrics; creator Dana Calvo openly trashed the notion that Amazon provided a

supportive environment for creatives in *The Hollywood Reporter* (Sandberg and Goldberg 2016). *Good Girls Revolt* was the first non-limited drama series that Amazon had cancelled after only one season, and it announced the cancellation far faster than was typical practice, conflicting with the company's statements claiming that the library distribution model allows them to give shows time to find an audience.¹³

When the writers wanted to know why, Amazon declined to share anything about the data that led to this decision, simply making a vague statement that the show was "underperforming." In the information vacuum, the staff was left to make sense of the cancellation using the same types of qualitative strategies that writers describe using to make sense of a streaming show's performance when things are apparently going according to plan. Given that online audience feedback about *Good Girls Revolt* appeared to be overwhelmingly positive (and that the show's critical reception was good, if not rapturous), this ultimately lead to widespread rumors that the show was cancelled not because of anything to do with audience data, but because Amazon Studios head Roy Price was a misogynist who didn't like the feminism-themed period piece, which centered on a group of female employees fighting sexual harassment and discrimination at the newsmagazine where they worked in 1969-70. A year later, when Price was ousted due to real-life sexual harassment revelations related to the #MeToo and #TimesUp movements, the argument about Good Girls Revolt's cancellation opened up yet again since this lent credibility to the rumors (Izadi 2017). Though the renewed conversation ultimately did not yield a second season pickup, it did provide another opportunity for writers and stars to

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¹³ Amazon had previously ended three of its adult scripted shoes after only one season. It cancelled the comedy Betas—which was released in weekly installments—two months after its finale/five months after its premiere in 2014. Earlier in 2016, it had ended Crisis in Six Scenes and Mad Dogs, both limited series intended to run only one season, although Amazon had explored the possibility of extending Mad Dogs, ultimately announcing they would not be doing so about two months after its wide release.

make the rounds arguing that the evidence they had was at odds with what Amazon said about their viewership data.

In this case, the information asymmetry between creatives and executives was perceived as a way for Amazon to avoid having to justify its whims, thus achieving more control over creatives. That said, because of the vast variety of types of data available to Amazon, different individual pieces of the puzzle can be interpreted as positives and negatives on the show's behalf. Thus, seemingly contradictory positions can simultaneously be supported by the data depending on which measures the interpreter chooses to prioritize. In her frustrated rants about the Amazon experience, Calvo cited high scores on Amazon's five-star rating system and conversion to retail purchases as metrics Amazon had indicated to her that Good Girls Revolt was performing well on, and noted that external attempts to measure viewership also suggested it was a hit, particularly with the women 18-49 demographic, where Amazon Originals had tended to struggle to that point (Sandberg and Goldberg 2016). Meanwhile, Price's right hand man Joe Lewis (who was incidentally also removed from his position during the #MeToo moment) eventually responded to the backlash by citing a low season completion rate to justify the cancellation (Fortin 2017), while an internal Amazon document obtained by Reuters in 2018 revealed Good Girls' dramatic underperformance in a metric called "cost per first stream," which roughly equates to the amount of money paid for each person converted to an Amazon Prime subscription by an original series (Dastin 2018).¹⁴

The reality is, though, that none of this information ultimately explains why *Good Girls Revolt* was cancelled, or what the relationship between the available data and Roy Price's

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¹⁴ Though I don't have a comment about this specific metric, my inference from an Amazon executive's characterization of their content business model (described in chapter 2) is that this metric is likely *very* important.

apparent disinterest in producing female-centered content was in making the decision. ¹⁵ None of these individual data points cited by different parties to back their positions on the cancellation are mutually exclusive. Moreover, each one can mean something different in relation Amazon's business model; for instance, it seems reasonable to speculate that there might be some consideration of balancing the ability to drive individual retail purchases, which are unlimited, against ability to drive subscriptions, which have a finite cap. Ultimately, it is only in seeing the total range of data points and how they are interpreted by the company and its analysts to tell a story about a program's value that we can really understand how a streaming company arrives at a decision like the cancellation of Good Girls Revolt. From the outside, we can glean bits and pieces of the information, but almost nothing about the way people make sense of it. There is a substantial interpretive gap here. When streaming services keep audience data out of the hands of creatives, it may give them a sense of independence during the construction of the onscreen story, but it also ensures an interpretive monopoly over the offscreen one.

In the past, the ratings offered far more limited options for narrativization than the advanced audience information possessed by streaming companies do, but their public nature ensured that creatives could still use what they knew about their audiences to tell a story about what value their program offered to a network. Both parties were on equal footing to do so. To draw an example from my own industry career, when I worked on Gossip Girl, we often discussed the fact that our show only drew about a million viewers, but that a high percentage of them were from households earning more than more than \$150,000 a year, which mattered to The CW. Today's advanced audience information offers far, far more in terms of opportunity to

¹⁵ In addition to the *Good Girls* controversy, critics pointed to the fact that he passed on *Big Little Lies* and *The* Handmaid's Tale, which went on to be massive successes for HBO and Hulu, respectively.

narrativize a program's value. As Amazon's head of production himself told me: "When you have enough data, you can use it to tell any story you need it to." ¹⁶

The information control strategies that create this interpretive monopoly, ensuring that streaming service executives are the only ones who can see the evidence needed to make an argument about a program's value, has significant impacts that extend far beyond the fate of any one television series. The *Good Girls Revolt* case illustrates in stark detail how practices of data siloing can be used to obfuscate highly problematic industrial power relations. As one online analysis revisiting the show's cancellation after Price's ouster wrote:

"Like Harvey Weinstein and so many other powerful men in Hollywood, Price was in a position not just to assault the women in this industry, but also to dictate what the rest of us see on our televisions and computers. Amazon has had deals with Woody Allen and Weinstein, yet reportedly passed on *The Handmaid's Tale* and *Big Little Lies*. Men like Price who view women as subservient sexual props should not be in a position that allows them to decide how we're portrayed in the media, and what representations audiences have access to." (Kane 2017)

In critical studies of algorithmic culture and data, one clear recurring theme is the fact that black-boxing data, hiding proprietary algorithms, and concealing technology company operations behind layers of non-disclosure agreements hides structural inequalities by baking them into the human design of information systems and then assuming the neutrality of the technologies (Brock 2015, Noble 2018, O'Neil 2016). In streaming service television, information asymmetries around data have quietly—under the cover of artistic freedom—created a situation where a particular class of executives has an outsize level of power over what stories get told and who gets to tell them. While the business of personalization could potentially provide some protection, as these executives have a vested interest in providing something for everyone, the questions raised by the Roy Price case—whatever the truth of this particular matter may have

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¹⁶ To be clear, this quote is a general statement, not about *Good Girls Revolt*.

been—is that it shows how data power can be abused in production cultures. Ultimately, data's threat as a creative limitation may be less about what stories it prescribes that creatives tell, and more about what the practices that have emerged around it do to hide the industry's structural inequalities around who gets to be a creative.

While big data forms of advanced audience information act as a structuring force around the work of television writers, social media forms tend to be much more salient in their everyday lives and practices. Making sense of this form of advanced audience information is also shifting things about how writers understand themselves and their role in the television industry.

The Politics of Writing in Public: Social Media and Networked Industrial Reflexivity in the Writers' Room

In 2014, 21-year-old actress Alycia Debnam-Carey got her big break when she was cast as a series regular on AMC's *Fear the Walking Dead*, the much-anticipated spin-off of the cable channel's popular zombie show. Prior to this, the young Australian's most significant part had been the recurring role of Lexa, the fan favorite lesbian military commander of the warring faction known as The Grounders on *The 100*, a post-nuclear apocalypse sci-fi epic airing on The CW. At the time, *The 100* was often celebrated for its nonchalantly progressive politics; in particular, the low-key and authentic way creator Jason Rothenberg's show had handled the budding relationship between Lexa and Eliza Taylor's bisexual protagonist Clarke had earned it a devout following among queer women. At first, Debnam-Carey was able to juggle both roles—*FTWD* had a short first season order—but as production on the AMC series ramped up, this was no longer tenable. Since the series regular role was took priority, *The 100* was tasked with eliminating the Lexa character. As many shows that have needed to get rid of a character while continuing to move plot momentum forward have done, the writers' room decided to kill her off.

The fact that the series killed off a recurring character because the actor was no longer available to them is, by itself, not especially noteworthy. The type of logistical production directive that led to this situation is a normal task in the course of producing an on-going series with hundreds of moving parts and talent working under a variety of contract structures. However, there were several contextual factors that transformed this relatively regular occurrence on a niche CW show into a major industrial event rather than business as usual. Although—according to multiple people I interviewed and spoke to informally—there was some tension in the writers' room about the decision to kill Lexa off forever. However, showrunner Jason Rothenberg was insistent that it was the most resonant way for such an important character to go. Specifically, his pitch was that Lexa would be killed by a stray bullet intended for her girlfriend Clarke just moments after the two finally sexually consummated their relationship. This scenario almost perfectly replicates the 2002 death of *Buffy the Vampire Slayer's* Tara Maclay, a character considered to be one of the most important pioneers of lesbian representation in television history. On top of this, in the intervening years between these two incidents, lesbian and bisexual women had died on television with far greater frequency than characters in other demographics; this had become known as the "bury your gays" trope or "dead lesbian syndrome" in internet parlance.

While the writers could not have predicted that this episode, "Thirteen," would air near the end of a television season in which a record-breaking number of lesbian and bisexual women were killed onscreen—42, representing 10% of all character deaths on television (far, far fewer than 10% of major roles on television were queer women), the writers I talked to readily admitted that they had discussed and dismissed both the *Buffy* echo and "dead lesbian syndrome" factors as concerns. As then co-executive producer Javier Grillo-Marxuach, who was at the time

Rothenberg's "second" in the writers' room and was the episode writer for "Thirteen" told me: "I have no excuse. I knew the trope. I knew the history. I just had the hubris to believe that what we were doing...and what I could do—was better than it."

The 100 was not, as it turned out, better than the trope. When "Thirteen" aired on March 3, 2016, the episode was met with swift, furious condemnation on social media. Much of the anger and frustration on social media was directed at *The 100*'s writers, especially Rothenberg and Grillo-Marxuach, who had actively worked to court queer viewership for their show and promote its progressive politics (Ng 2017, Stanfill 2019). While these types of call-outs are fairly commonplace in social media culture, this particular outpouring of grief and rage had astounding ferocity, magnitude, and staying power, remaining active literally years after the episode first aired (Navar-Gill and Stanfill 2018). As Mel Stanfill and I have documented, fans organized their initial, furious response on the hashtag #LexaDeservedBetter, and followed this up with weeks of sophisticated protest that carefully leveraged Twitter's affordances for maximum visibility to the television industry and entertainment press. While Grillo-Marxuach was initially defensive, he said as someone who has always been especially engaged with digital audiences, he was also curious about the response, and as he took it in, it was hard to escape the reality that "this had hurt real people." Those people were from a marginalized population that he believed himself to be an ally of, and clearly, in this situation, he had not been, or they would not feel this way.

The 100 controversy was particularly large, got a lot of press, and was frequently referenced by my informants as a touchstone in current industrial discourse regardless of their connection to the show (two key informants had been writers on *The 100* at the time and discussed it in greater depth). It was both a watershed moment for fan activism and a perfect storm of bad audience

management decisions on the part of multiple people associated with a production that had previously gained the trust of a marginalized audience group (Navar-Gill and Stanfill 2018, Ng 2017, Stanfill 2019).¹⁷ What is particularly striking about the incident, however, is ultimately not its particular intensities, but that it is a magnified version of what is now a relatively mundane occurrence in television writers' rooms: the reevaluation of storytelling politics as a result of encounters with the audience on social media. The firestorm that unfolded around The 100 became a major flashpoint in an ongoing negotiation about the ways in which online interaction with social media audiences is shaping the politics of scripted storytelling in television production, particularly insofar as it relates to the depiction of marginalized communities on television. While interviewees constantly invoked the anxious discourses about fan-driven storytelling that I discussed earlier in the chapter, there was a far more unexpected and intriguing theme that emerged perhaps even more consistently in my interviews with television writers and their support staff: a sense that the biggest impact of television writers' rooms knowing the audience through social media is an increased belief that television storytelling is a networked political act and not just an isolated creative one. 18

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¹⁷ In addition to the various contextual factors I have outlined, several members of the 100's staff were viewed by the fan community as deliberately misleading the The 100's queer fans in particular in the months leading up to "Thirteen" airing. For instance, a (straight) staff writer who had been an active participant in a lesbian chatgroup about the show reassured the group that things would be fine, while Rothenberg posted photos of Debnam-Carey on set during a later episode (while the actress was on set, it was later revealed to be merely a virtual reality version of her character). See Ng (2017) and Stanfill (2019) for more in-depth discussion of the poor decision-making on the part of production that primed this incident in particular to blow up the way it did.

¹⁸ It is worth noting that I conducted most of my interviews with writers during the early months of 2017, a time when many elements of "liberal" American society were experiencing shaken complacency after the election of Donald Trump, and that this political climate doubtless contributed to the intense focus on storytelling politics that emerged in my interviews. With one exception, my informants did not actively put their thoughts about social media and Trump in conversation with each other as drivers of their increased political awareness, but my questions were about social media specifically, so it is not surprising that I did not elicit specific responses about Trump's role. Additionally, most of the specific instances they recounted occurred well before Trump's election. However, a preoccupation with the overall political climate seemed like it loomed over most of these interviews, and I would be remiss not to note their timing.

This shift in the world-views of television's storytellers is a manifestation of algorithmic cultural logic in that production workers increasingly think of practices of storytelling as part of an interconnected system where the relations between different stories are as important as the artistic trajectory of any individual story. While the notion that cultural stories are part of a larger system of meaning and representation is obviously the farthest thing from novel in media studies (Hall 1997), its adoption as a framework for critical reflexivity in production practice (Caldwell 2008), in particular as something many people have come to believe supercedes simply "following the muse" when crafting stories, has potentially significant impact. My interviewees' focus on how their role as storytellers created a responsibility to marginalized communities—which various people brought up along axes of race, gender, sexuality, immigration status, and ability—suggests that this type of intertextual thinking, which I am calling *networked industrial reflexivity* is particularly important in terms of the politics of television's depictions of these groups, although certain aspects of the approaches to this responsibility they pursue may create a different set of limitations and exclusions.

Industrial Reflexivity and Progressive Politics Inside the Hollywood Bubble

With or without social media, television writers approach their job through a critical and reflexive lens. In John Caldwell's (2008) extensive study of Hollywood film and television production as a local culture, he argues that "many film/television workers...critically analyze and theorize their tasks in provocative and complex ways" (p. 2), referring to this process as industrial reflexivity. Caldwell argues that complex critical and theoretical ideas are an everyday part of industrial operations. While he importantly reminds us that self-interest and spin are part of the process of both this informal theorization and the disclosure of it, these acts of reflection on the part of film and television workers are significant, with serious implications for both what

is accepted as industrial commonsense, and ultimately how that is realized in the texts that workers produce. To some degree, Caldwell calls out industrial scholarship as failing to acknowledge workers' critical abilities, writing:

"This is especially evident when one talks to screenwriters, producers, or directors about how *personal*, *private*, *and familial concerns* they deem important work to inform, inflect, or percolate up through films and series they make. With rare exception, such creators have little problem discussing why and where the themes they deal with come from. Certainly this heightened form of analysis and interpretation by film/video professionals—together with the audience's continuous awareness and reading of production nuance—provides a form of critical interrogation every bit as complex as those of professional critics. Yet we seldom grant industry this critical capability" (p. 339-40, emphasis added).

However, somewhat absent from Caldwell's theorization of industrial critical reflexivity are notions of the *political and structural* concerns that industrial workers may bring to production processes. In fact, Caldwell suggests that they "frequently hesitate to admit or assert that their film or creative project has intellectual or cultural significance, or that it participates in a broader theoretical dialogue outside of industry" (p. 24). Notably, however, Caldwell's long-term ethnographic project was conducted from the mid-90s to mid-aughts, a period of time that—though certainly not pre-digital—was before widespread diffusion of technologies like social media platforms. And while there are many narratives about the ways in which discourses on these platforms can be have regressive impact, there is also much to suggest that they have led to theorizing around political and structural concerns among the general public that is both more complex and more everyday than it has been in the past (Day 2018, Lawson 2018, Weigel 2018).

At the same time, however, the absence of much reflection on politics in Caldwell's findings meshes with a broader disconnect between politics in theory and politics in practice

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¹⁹ Though Caldwell's focus is on below-the-line work, these passages are particularly selected from his discussions of above-the-line creative figures.

found in the Hollywood production space. Republican presidents made in Tinseltown not withstanding, the politics of Hollywood have long been figured both internally and externally as deeply progressive (Kendall 2006). Largely existing in myopic, privileged isolation, the film and television industry has not often been asked to examine itself on this point. In the United States' bifurcated political system, the left happily benefits from the industry's stable of Democratic mega-donors, while the right finds a convenient antagonist in the "liberal Hollywood elite." Of course, as numerous examinations of both textual representation and structural conditions of production have shown, Hollywood's strategies for enacting its "progressive politics" tend to be revealed as relatively flimsy when held up to scrutiny. For instance, Evelyn Alsultany's (2012) exploration of post-9/11 representations of Arabs and Muslims in American media shows how ostensibly progressive efforts to balance images of "good Muslims" against those of terrorists is a practice that creates its own exclusions and stereotypes, which she calls "simplified complex representations," and Kristen Warner's (2015) study of the practice of colorblind casting reveals that its race neutrality uses theoretical inclusiveness as a cover for what ultimately amount to discriminatory hiring norms. And of course, this is to say nothing of the #MeToo and #TimesUp movements touched on earlier in this chapter, which, while far broader than Hollywood, certainly had the entertainment industry at the epicenter of their wide-ranging gender discrimination and sexual harassment revelations.

However, within the context of what several of my participants referred to as "the Hollywood bubble," even at a time when dramatically un-progressive acts within the community are being foregrounded in public discourse, industry workers still view themselves and their professional milieu as a safe progressive haven. In this insular social world where a combination of an overwhelming consensus about politics in the industry—one economic study that used

political donations as a proxy to try to quantify political differences in Hollywood came up with the ratio of 125 liberals for each conservative (Kendall 2006)—and power structures that are defined by white male hegemony creates a problematic but unquestioned common sense understanding of the industry as a radically progressive space. This may be unmatched by practice, but when the vast majority of people generally share a worldview and validate each other on it, it can be hard to perceive either outside differences. Perhaps more importantly it can be hard to perceive the ways ways in which creative productions may be more than "just stories" to the audience members who see them. In other words, even when well-intentioned, film and television productions may reinforce problematic ideas contrary to the political values that Hollywood's creatives believe themselves to espouse.

While various forms of audience research have obviously always been interested in perspectives from outside the Hollywood bubble for business purposes, the "gut instinct" sense of what audiences wanted that creatives brought into the writers' room has been very much largely informed by their own limited social worlds (Espinosa 1983, Zafirau 2009). Social media, however, has unquestionably had the effect of expanding many Hollywood denizens' understandings about what life is like outside of their insular "bubble." It provides a 24/7 pipeline to everyday conversation and cultural discourse. Particularly as it concerns how Hollywood's products are received and interpreted by ordinary consumers, social media allows the "gut instinct" to informed by vastly more specific qualitative data informing them about what audiences' lives are like and what they care about in their media. One of my informants described this change by saying that "everyone is like in your own little bubble when you're writing a show…all of a sudden now when you're writing a show, it's like [the audience] is here in the room all the time." Particularly insofar as this expanding social network brings unfamiliar

perspectives into the writers' room and other creative spaces, it can have explicit impact on the politics of storytelling.

This is particularly true when, as experiences on social media expand the borders of Hollywood's limited social world, they significantly intersect with a sophisticated layer of protest culture that has built up on social media. This "call-out culture" is enacted by people Lisa Nakamura (2015) refers to as "social justice venture laborers," who try to intervene in the racism, sexism, and homophobia that often permeate online discourse with the specific pedagogical mission of creating better conditions for women, sexual minorities, and people of color. While Nakamura focuses on the work of social justice venture laborers as an act of community moderation, other scholars have noted the ways in which call-out culture is used specifically for putting pressure on media producers and organizations, most often in the context of their representation of marginalized groups (Kido Lopez 2016, Molina-Guzmán 2016, Navar-Gill and Stanfill 2018, Ng and Levin Russo 2017, Portwood-Stacer and Berrige 2015). Although the notion of "hashtag activism" is at times derided, as Lori Kido Lopez (2016, p. 187) notes in her discussions of Asian-American social media activism, it can be an effective way to force creators to acknowledge audience responses to their content, given that "the speed of online communication and the throng of negative publicity that an image can accrue in a short amount of time contribute to an environment in which media producers are pressured to respond immediately." Armed with an awareness that media institutions and producers are attuned to social media discourses about their products, social media users can leverage the affordances of social platforms to put pressure on the powerful who create and circulate cultural stories (Evans 2014, Navar-Gill 2017, Navar-Gill and Stanfill 2018).

In the last several years, there has been some indication that such social media interventions targeting Hollywood's progressive failings might be having tangible impact.

Following the #OscarsSoWhite social media campaign initiated on Twitter by activist April Reign to protest the lack of nominations for people of color in major categories at the 2015 and 2016 Academy Awards, the Academy of Motion Picture Arts and Sciences rewrote several of its membership rules in an effort to diversify its predominantly white, male, and aging voting body. While there was some backlash from within the academy to these changes, the response to #OscarsSoWhite suggests that social media is, at least in some capacities, a valuable tool for audiences to put pressure on Hollywood's politics and create structural change (Feinberg 2016, Harris 2016, Laporte 2016). As one of my interviewees put it, having access to audiences on social media is "at once terrifying...and a beautiful thing because it forces issues front and center, where I think in the past it was much easier to, like, hide."

In this new understanding, audience perspectives are a constant presence in the writers' room, serving as witness to and a check on the conversations that shape the stories of television in an explicitly political way. The space of reflection that this has opened up for creators/in writers' rooms is both striking and surprising. Almost every writing staff member I spoke to over the course of this project had some anecdote about how social media conversation had led them or their writers' room to reflect on and discuss the representational practices on their show and the ways that they intersected with or betrayed their self-concept of progressive politics. While some stories I heard were reactive and others proactive, all were deeply entwined with the affordances of social media platforms and the types of thinking the networked architecture of these platforms encourages.

Tripping a Trope Landmine: Representation and Audience Visibility in Practice

Similarly to practices surrounding big audience data, social media feedback needs to be incorporated into the creative process by writers in a way that they feel reinforces their perceptions of themselves as artists and creatives. As an example of how progressive politics serve as a frame for writers to make sense of social media feedback in ways that align with their creative goals, one of my interviewees, Carter Covington, the creator of MTV's Faking It and ABC Family's 10 Things I Hate About You, argued that writing "for" social media is a generally bad idea, but that reading audience responses offers TV writers a valuable opportunity: "what social media gives is the chance to think about what you're doing as an artist." Covington explained to me that he tries to challenge himself to—rather than having a knee-jerk reaction to the comments—really take the time to reflect on why the audience is reacting the way they are, and put those reactions in conversation with his own reasons for making art. As a gay man who grew up in the American south and struggled with feelings of isolation in his youth, Covington has often publicly expressed the hope that his ability as a showrunner to tell queer stories on television will offer hope to LGBT teens, especially those who feel alone in their communities, explaining that when he was young "TV was the only reference I had of what my options would be, and it was exciting to see someone gay on TV, but scary to see that most of what was shown was a struggle." But in 2014, when Faking It, his most explicitly queer project, hit the air and he got on Twitter, Carter told me he was shocked to see how much of the social media reaction suggested he was there were aspects of his storytelling that might have a radically different effect on the LGBT community. It stung at first, but he said he tried to take a step back and think through why people were reacting the way they were. For example, even though Faking It's setting was a high school so aspirationally inclusive that being gay was an automatic ticket to

social stardom, audiences were viscerally upset that one of the main characters, Shane, repeatedly outed other people. From Carter's perspective, this was a fun running joke, as well as tongue-in-cheek commentary about his hope for a world where gayness would never need to be hidden. But then he went on social media, and saw people put this "joke" in conversation with their own experiences being outed in the real world. One viewer, for instance, tweeted, "as someone who was outed at work (years before I came out) by another lesbian, I can't say I loved that outing, Shane #FakingIt." Seeing this pattern emerge on Twitter, Covington said he realized his writing wasn't being read as hopeful, but scary. SInce this was quite at odds with the greater political impact he hoped to have as a storyteller/artist, he ultimately decided to incorporate the critique as a plot point and force the character to deal with the consequences of his actions, discovering (in a way perhaps parallel to Covington himself) the ways in which his actions were harmful and frightening to his own community that he was trying to support. Without social media, he felt like he never would have been able to get out of his own head and see this mismatch between intent and impact in his storytelling.

What Covington described was a deeply reflexive incorporation of the social media feedback loop in which he used reactions from social media to critically analyze and re-theorize his storytelling practices as well as what animates him a creator. This is in many ways a personal process, but the dialogue that Covington had with himself is also something that now regularly plays out in everyday conversations in writers' rooms. For example, Fox's *Sleepy Hollow*, which faced a similar but not as extensive backlash to *The 100* in April 2016 after they killed off the show's Black female lead, played by actress Nicole Beharie. This sparked intense conversations in the writers' room about whether the accusations coming from social media—that the show centered its white characters at the expense of characters of color—were justified:

"I think we got a portion of that [kind of backlash] in that we killed off Nicole Beharie, um, which, that was really complicated to watch, because it's like, on the one hand, there's all this rage and you totally understand where it's coming from, but on the other hand, you're like, well, that actress wanted to quit. She didn't want to be on the show anymore...but then it's also like, someone brought up, do you think, like, she wanted to quit partly because her character was, like, marginalized? And it's like, well, I think in some ways...but it's good because it forces us to think about that, and like, to really take those decisions very seriously within writers' rooms" (emphasis added).

While there is a degree to which this conversation ultimately absolves the writers of responsibility, it also indicates a willingness to think about, discuss, and seriously engage with issues of racial representation, implicit racism, and tokenism in their storytelling practices. And they were left with questions to ask themselves as they developed future stories that they would not have previously considered.

Both the *Sleepy Hollow* and *Faking It* cases were reactive reflections in response to negative audience reactions, but these writers' room conversations around storytelling politics are taking place in proactive ways as well. A writer on the *Lethal Weapon* television adaptation described his thought process as he scrolled through the show hashtag on Wednesday nights:

"If you click on the Lethal Weapon hashtag, you'll see, there's a lot of people that would, traditionally, be your red state type of folks...and then there's a large audience of African-American women...it's like two different worlds, and they're watching the same show. And that gives a little bit of, you know, just *in my mind when I'm thinking about the show, and what is our story? What's the subtext to some of the things we're writing and how is it going to be read by a particular audience?* It's nice to not just look at the number, that's like a 1.6, but be like, oh yeah, these are human beings that are watching."

As an economically elite white coastal liberal thinking through the way his stories play out for "your red state type of folks" and "African-American women," this writer expresses an awareness of how the individual positionality of an audience member makes a story read differently, and a desire to be cognizant of that during the writing process. He notes in particular that seeing the differing reactions of these two different audience segments to the exact same text

made him particularly reflective about the types of stories *Lethal Weapon* tells. At the time of our interview, when the writers' room had just started discussing their plans for the show's upcoming second season, he told me that—in light of the current political climate and their awareness of their red state audience in particular—the writers had decided to make the rise of white supremacy (notably, rather than their initial plan of terrorism) in the United States a major theme in the upcoming season in the hopes of using storytelling to build consciousness and empathy.

These anecdotes describe a creative environment where, while fans are not necessarily driving specific plot beats, their reactions to what they see on screen are incorporated into a feedback loop where they are processed and integrated into future storytelling choices on a more structural level. This process is reminiscent of something that social media scholars refer to as the mutual shaping logic of social platforms. As described by José van Dijck and Thomas Poell (2013), mutual shaping is a process by which "platform programmers and users constantly negotiate the terms of social interaction" on the platform. While platform designers code algorithms that structure social interaction in particular ways and while the balance of power is always tilted in their favor, the way that users navigate and push against that code influences the development of future code, as when Twitter hard-coded hashtags into the platform's design after users started organizing conversations with them. Applied to the context of the television writers' room, the mutual shaping of storytelling occurs as writers dissect audience reactions from social media and work through what they did to elicit those reactions, as well as what they can do to get different reactions in the future. Although it was certainly possible to think through and respond to audience reactions in some ways in the past, the level of mutual shaping that happens now is afforded by the different type of audience visibility that social media creates.

As the *Lethal Weapon* writer noted, there are big differences between what the "1.6" of a Nielsen rating and the "human beings" he saw on Twitter hashtag look like to series producers. In the past, television writers had two primary sources of knowledge about audiences that they took into the writers' room on a daily basis. One, the basic demographic data of Nielsen ratings and two, the amorphous sense of possessing the "gut instinct" that they had a finger on the pulse of the zeitgeist. While this writer still describes his audience through the lens of political/geographical and race/gender segments, the way those groups look on social media in their own words is very different than what happens when you just hear the demographic descriptors of "midwestern Republican" and "African-American woman."

When Ien Ang (1991) wrote about how TV audiences were constituted by ratings, she described them as "taxonomic collectives" whose social realities were entirely obscured. But on social media, collective identity looks different—and it has a visible social reality. In her work on digital technology and social movements, Stefania Milan (2015a, 2015b) suggests that the logics and material constraints of social media technologies reconfigure the collective, making it something that is "experienced through the individual," and visible to power via the placement of a set of individual experiences next to one another. Milan is particularly interested in organized political movements, but an audience can be a kind of collective identity too, coming together around a text instead of cause. While those in power cannot see every social reality of every audience member, seeing *some* social realities of *some* audience members and using those to inform their understanding of a group of, for example, "African-American women," disrupts the the "taxonomic collective" of previous concepts of audience. As Milan suggests, the "politics of visibility" that this engenders allows individuals—whose singular perspective might get lost in the shuffle—to easily collapse into a collective in order to gain agency. This is true whether

audiences organize into a coherent "activist hashtag" or simply put an outpouring of emotion out into the digital ether simultaneously. In the writers' room, imagining reactions from particular articulated experiences of "real human beings" has much greater specificity than guessing at the responses of a disembodied demographic, even as those particular experiences are assumed over a larger population.

This visible audience has substantial implications for how TV writers think about and go about doing their jobs. Looking back on *The 100* controversy, Javier Grillo-Marxuach reflected that "Our stepping on the dead lesbian trope landmine really brought to light a big societal issue that TV keeps doing without being called to account for." But on social media, audiences are starting to call them to account. And the outcries that take shape when these actions are called out are not just conversationally drawing attention to the connections between different stories. They're taking place on platforms *constituted* by the very articulation of connection. And as as I kept hearing television writers tell me how the social media ecosystem was drawing their attention to the ways in which individual stories connect to each other in a broader system of representation, it really started to seem like the biggest consequence of social media for TV writers was the way that it made them think about television storytelling writ large as a network of related textual decisions rather than a collection of individual, isolated stories. This realization is deeply political. As tech scholar Moira Weigel (2018) argues:

"Another effect [of social media] has been consciousness-raising. Social media shows just how political the personal is. If nothing else, social media platforms are vast machines for revealing structure. Facebook and Twitter encourage each of us to share the details of our lives all day—and then analyze these data points to discover patterns. People who like x also like y. People who look p and q ways are likely to have r happen to them. Correlation may not be causation. But, as networks encourage us to discover our commonalities, to join a chorus of likes and retweets and hashtags, they show us the systems we live in...Once you see structure, you cannot unsee it."

When showrunner Jason Rothenberg was eventually forced to respond to the controversy, the *Medium* post he published expressed that what he had learned from this experience was that "no series, no episode of television exists in a vacuum" (Rothenberg 2016). While even just a couple of years ago, the party line on a narrative controversy like Lexa's death would be framed in terms of authenticity to the artistic coherence of this individual story or character journey, Rothenberg—while explaining the creative thought process that had led him to kill off Lexa said that ultimately, he had realized that no story was above the bigger representational system in which it exists. It's hard to say to what degree Rothenberg was simply making a calculated PR statement with his *Medium* post, but his regardless, his response hit on something significant that was actually happening in other writers' rooms.²⁰ As one young writer without a personal connection to *The 100* told me: "Like they were talking in [my current room] about what characters we'd kill off this season, and it was like, we do not want to repeat *The 100*. We need to make sure that we do not marginalize people that are already marginalized." When writers start to see stories through the eyes of networked information systems like social media this prioritizes thinking that places individual stories into larger intertextual systems.

The Promise and Limitations of Networked Industrial Reflexivity

Of course, the idea that individual mediated stories add up to create complex systems of meaning and representation that help to constitute lived realities for actual people is the about the farthest thing from novel in media studies, but as someone with some experience it's hard to overstate just what a paradigm shift it is that this has become an everyday topic of conversation

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²⁰ Grillo-Marxuach told me that he had advised Rothenberg to hire a crisis PR firm during the first 24 hours of the controversy, but that Rothenberg had dismissed his suggestion at the time, believing the outcry would die down. He was no longer working on *The 100* by this time, and was uncertain if his by then-former boss had ever taken his advice, and if so, what role PR played in crafting the statement. The other *100* writers I spoke to were willing to speak about their own processes of reflection around the controversy, but less forthcoming about (and less involved in) behind-the-scenes details of managing the situation.

in TV writers' rooms. Having the audience "in the room, all the time" has led to a reconfiguration of priorities in the writers' room. As social media brings greater awareness of TV stories as a larger networked system into the room, writers are spending far more time reflecting about where they fit in that system. While I'm not trying to take a technologically determinist stance on this phenomenon—there are a variety of other cultural factors including the election of Donald Trump and the exposure of rampant Hollywood sexual abuse that are involved in the contemporary shifts in Hollywood politics—my eight months of interviews suggest that a major driving factor in these conversations is the constant exposure to audiences on social media that punctures the bubble in which Hollywood has largely lived its politics free from conversation with the outside world. Being on social media with the audience seems to open up a space where television writers are able to put audience reactions in conversation with their own beliefs about themselves and their artistic politics. This leads to increased reflection on both the politics of storytelling and what it means to live out progressivism, and a reconfiguration of priorities in the writers room. This phenomenon of networked industrial reflexivity may have the potential to play a key role in helping industry industry practitioners reevaluate Hollywood's politics of representation and forcing them to confront the progressive failings of diversity strategies like colorblindness and simple multiculturalism.

There are some important critical caveats and unanswered questions, however, when it comes to what impact networked industrial reflexivity may ultimately be able to have. None of this, of course, is to suggest that talking to audiences on social media is a panacea for every representational iniquity that has ever plagued television. Though they are clearly open to reflection on the relations between stories and politics, writers certainly interpret these conversations and events in ways that are favorable to their self-concepts. It may also take time

for the impact of audience visibility to sink in. For instance, Carter Covington's public reactions to queer critique while *Faking It* was actively airing were stridently defensive in a way that was nearly opposite the contemplative interpretation of his blindspots he shared with me three years later, and he remains a divisive figure in queer fan communities.

Further, while the adoption of networked industrial reflexivity as both an individual practice and a mode of talk amongst writers seemed quite widespread across my interviews, there was far less consistency about what this realization meant that TV shows should actually do. This is, on the one hand, a fundamentally optimistic research finding. I talked to so many people who were thinking about the action of representing as a responsibility and even taking a hard look at their own complicity in creating problematic representations. Starting conversations in writers rooms as a good thing is an absolutely essential first step toward representational change. But asking what TV writers will actually do with these new ideas opens up a lot of questions for the future.

First, the representational strategies that writers are adopting in response to these issues are well-meaning, but it's not hard to see that never killing off another character from a marginalized group is another kind of systematic limitation. Scholars like Evelyn Alsultany (2012) and Kristen Warner (2017) have looked at the way that "inclusive" strategies play out problematically in texts, and it will take a far more nuanced and less essentializing theorization of ideas like queerness and Blackness than I heard anyone express over the course of this project. A lack of complexity in thinking this through ultimately would to more of what Warner calls "plastic representation" that synthetically offers visual diversity without attentiveness to the specificity of marginalized experiences.

Second, the tension between simply pursuing better representational strategies and actually moving toward structural change in writers' ideas about how to respond to discussions of their progressive failings on social media. There were a lot of differences in terms of the degree to which writers wanted to talk about the role that white cisgender male hegemony in writers' rooms has played in creating these conditions. Younger and lower level writers were eager to talk about this issue, and suggested that social media pressure could play an active role in both supporting more inclusive hiring practices and earning marginalized writers more respect within the writers rooms. As one young woman (herself of mixed white and East Asian descent) early in her career bluntly stated:

"A lot of the people who are at the top have been at the top for a long time and are not from marginalized groups, and do not understand this whole new world of diversity, and have not yet learned to listen to their diverse hires. and then, so [social media] forces the issue from another direction. I think it gives more weight to [those voices] sometimes within the room, because it's like, oh hey, if you don't listen to your diverse voices within your room, then, like, they're saying now what Twitter is going to say later. they're saying what the backlash will be. If you don't acknowledge that, then, like, you're an idiot."

For her, social media was an important tool in pushing the industry forward with diversity, and in practice, it can in fact have structural impact. Another younger writer working on a show with disability themes told me that during the first season, the showrunner had focused his hiring on writers like her who had family members with disabilities. Social media responses making the point that these writers had insight into the experience of being in a disability family but not of *having* a disability had played a substantial impact in getting a disabled writer hired for season two.

However, those who were passionate about diversifying the workforce as a path to better representation had little power to do so, and writers in more established power positions tended to frame their reactions in a very different, far more conservative ways that align with Isabel

Molina-Guzmán's (2016, p. 444) argument that Hollywood "equates the minimal on-screen visibility of marginalized groups with social progress," eliding need for structural transformation by celebrating limited on-screen multiculturalism as a testament to its progressive values. One longtime writer-producer noted that:

"A lot of it becomes white noise and we kind of push it out, but [a social media discussion of a racial misstep] was something that was particularly concerning...like, let's make sure we do better because we want people to have fun watching the show. We don't want them to be like, that was kind of gross. Like, lets not do that. So I think that's a positive on the whole."

The idea of "let's not do that" as the solution implies that what is wrong is simply what is onscreen and the fix is just to avoid the problem in future storytelling. It also supposes the people who are already in the room and granted the power to speak *even know* what the "that" in question is. Since it tends to be those with less institutional power advocating that there is more involved than "let's not do that," namely, a radical restructuring of who it is that has the agency to "do" in the first place, it's hard to know whether they will maintain this as they advance in their careers, or if advancement will come with the embrace of industrial hegemony.

Finally, while these issues around social media and representation of the marginalized were brought up without prompting by every one of my interviewees in writing and production, none of my interviewees in more corporate positions either brought them up or were interested in discussing them when asked. To see what kind of impact these shifts in thinking can really have out in the world, you have to in some way get at what happens when these political priorities interact with capital and commercial imperatives. As Warner (working paper) persuasively argues, corporate media industry responses to these types of controversies have a long history of working their way through a shame cycle that performs the appropriate response as a public

relations strategy without ultimately affecting much change. It remains to be seen whether social media technologies can disrupt the shame cycle over the long term.

Ultimately, however, I'd like to argue that no matter how these issues work themselves out moving forward, these stories about storytelling show us that technologically restructuring the way that TV writers experience audience information has really significant implications for how they think about their jobs and more broadly, their role in society. Where abstract demographic taxonomic collectives could not offer rich information about lived experience, and relying on "gut instinct" simply creates an endlessly self-validating worldview, social media logics of a collective identity that highlights individuals, networked information architecture that encourages users to see the links between its data points, and mutual shaping that sees the terms of engagement as intersubjectively constructed create a sense of "audience" that can be responded to and constantly negotiated with. And this negotiation—along with the technologies that create it—ends up being seen as creatively freeing because writers start to view their work as a form of political expression as well as creative expression.

As writers work make sense of advanced audience information in all its forms and incorporate technologies of data and social media into their practices, their changed sense of audience is influencing storytelling. This influence, however, is not prescriptive. Instead, it takes the form of a working through of creative identity and social position, of what it *means* to be a television writer.

Chapter 4 Fuel, Followers, and Fandom: Making Sense of Television as Digital Culture on Social Media

In my interviews with American's television's social media professionals, metaphors thoroughly saturate almost every conversation. This isn't terribly unusual, of course, most people use metaphors all the time to make sense of and communicate hard, abstract, or new ideas in terms of easier, more concrete, more familiar ones. It's not surprising that this literary device frequently pops up as we navigate emergent aspects of digital culture. As Lev Manovich (2001) explains, we often use metaphors of existing objects to make sense of emergent, more perplexing computational ones: hence files, folders, desktops—there is no reason we should have remediated these ideas into the digital world but that they help us understand how to navigate the organizational partitions on our computers. Particularly well-deployed metaphors frame perceptions of value as well as conceptual understanding. It makes sense, then, that the members of one of American television's newest, least established professional classes—and one far more tightly entwined with the technologies and practices of "the digital" than those of the "traditional" television industry—use so many metaphors to explain what it is that they do and why it matters to television. There was one metaphor that recurred more often than any other:

"Our motto is *fuel*, don't tell. To force something on fans just doesn't work."

"We're trying to *fuel* their fandom, that's another thing we say. We're trying to arm them with content will help them become proselytizers...throughout their friendship circles."

"Reaching the fans, letting [people] know the show exists, and then *fueling* the conversation, it's all hugely important to our strategy...part of the mix of things we try to do."

As a metaphor for what television social media work is meant to accomplish, "fuel" is exceptionally rich. Fuel is the material that produces power, a source of energy, or simply a thing that sustains a passion. Television social media work takes the potential of social platforms and tries to transform it into audience energy and excitement that can sustain a television series. The phrase also trades on the metaphors of natural resources so common in the big data discourse (Puschmann and Burgess 2014), but with a fascinatingly honest twist; "fuel" after all, is the result of harvesting the natural resource of oil, distilling it into its subcomponents, and using various forms of chemical engineering to turn those subcomponents into substances that are more "useful" for powering things. Whether thinking about this through the lens of the data produced by activity on social media, or the idea of fan cultures that exist "in the wild" without corporate oversight, this is a potent and revealing metaphor for what social media professionals who work in television are trying to accomplish: capturing those things, and then shaping and rerouting them in ways that are useful for the television institutions they represent.²¹

Industrially, this category of work has primarily been articulated to advertising and marketing, whether incorporated into subdivisions of existing promotional departments or placed in new but affiliated ones. However, it does not entirely make sense viewed exclusively through

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²¹ The practices I discuss in this chapter are often looked at from the perspective of fan cultures and the audience members that participate in them as a "disciplining," "commodifying" and "exploitation" of fandom (Jenkins 2006, Jenkins et al. 2013, Murray 2004, Scott 2011, Stanfill 2019). While I acknowledge the significance of such critiques for fan and audience studies, and my own previous work has engaged with this conversation significantly, those concerns are largely secondary to my industrial analysis here. Instead, this chapter is more informed by studies of advertising and promotional culture that focus on the ways that professionals understand and interpret their jobs. These include Nixon (2003), who emphasizes the ways in which the habitus of promotional workers has substantial implications for the way that the consumer is imagined and realized in promotional practice, and Grainge and Johnson (2015) who are also concerned with the ways that digital technologies have expanded the range of practices and thus skills needed for those working in promotion for screen industries.

that lens. Work on social media requires a substantially different set of skills and literacies than the traditional promotional work of producing spots and managing campaigns (Grainge and Johnson 2015). Additionally, the role these workers play in relation to the rest of the TV industry landscape, as well as to the audience, seems much more complicated than a simple framework of promotion or media marketing explains. They certainly serve promotional functions but are also turned to as experts about audiences—often over and above formal "audience researchers"—by a variety of others within the industry. Within the audience, they act as professionalized fans; they pull others from the crowd to professionalize them too. Perhaps most importantly, they serve as mediators between television and digital cultures, helping television position itself as part of a digital culture that has a distinctly different temporality and model of address. And although there are increasingly positions of power to rise to—particularly at digitally endemic or youth-oriented distributors—many of them they do all this from some of the lowest status jobs in the industry, working as coordinators, assistants, or independent contractors.

Variously referred to as digital promotion or social media management, the category of television industry work discussed in this chapter is a new television industry profession that has emerged in the digital era. Its primary responsibility of integrating the technologies of everyday algorithmic culture into television business operations. Because of its emergent nature, the boundaries, responsibilities, and meanings of these jobs have been constantly negotiated and reinterpreted in the early years of their establishment and remain in flux even as a greater number of practices become at least somewhat standardized. Even as it remains a shifting professional space, this work is a substantial site where advanced audience information is produced and interpreted.

This chapter explores the sensemaking that has gone into creating this new profession within the American television industry. Following a series of key tensions that television's social media workers are negotiating as their profession coalesces, I show how they are figuring out their position as "digital" media workers in a "legacy" media industry. In the process of making sense of what this new profession should look like, their place within the television industry, and the many kinds of advanced audience information produced on social media, the members of this profession are working through staple concepts and categories of the TV industry—"audience," "fan," "content—and negotiating how they should be understood in a television ecosystem that is part of digital culture. In settling how their emergent jobs should look, they are also setting the agenda for the television industry's participation in digital culture.

Imagining Social Media Work's Place in Television Industry Cultures

In their relatively short history as a part of American television's promotional cultures, social media have been imagined and re-imagined as serving a variety of different purposes for television businesses. As Paul Grainge and Catherine Johnson (2015, p. 2) note in their study of what they call the "promotional screen industries," audience fragmentation has made the work of marketing television "much more strategic and complex," with the industry required to meet its audience where they are across platforms, providing experiences and interactivity that extend beyond the primary television text. Successfully doing so extends the work of television promotion into the development of new kinds of labor and expertise.

Some of the purposes imagined for social media have figured their interaction with television as a plug in the dam of a breaking business model. For instance, recall Kosterich and Napoli's (2016) findings discussed in Chapter 1 that social media was at one point imagined as something that could serve as an alternative measurement system for television program success

until its characteristics ultimately proved unsuited to the needs of a currency. Alternatively, social platforms—in particular, Twitter, with its orientation towards synchronous communication around moments and experiences—could be a way to deal with the undermining of the of the adsupported business model from a simpler angle: the correlation between Twitter use and live television watching could be a way to drive audiences back to the live broadcast by adding a social dimension to the experience that could not be replicated with time-shifted viewing (Nielsen 2013). The early 2010s saw a big emphasis on developing "second screen apps" and creating social experiences that were designed specifically for television in the hopes that making television more "social" would keep it more live. However, initial enthusiasm for this trend waned as the dominant discourse became that the second-screen space was too cluttered for audiences to enjoy because there were "too many apps for that" (Poggi 2014). This was followed by a contraction towards a focus on leveraging the most popular social platforms from the more complicated system of owned, bespoke, and television-specific second screen apps (Moe, Poell, and Van Dijck 2016). While live tweeting remains an important practice at linear distributors (and one that non-linear distributors have developed some intriguing riffs on), by 2016, the "second-screening" discourse had substantially tapered off.

Major social media platforms have since remained at the center of the American television industry's digital promotional cultures for a variety of reasons, particularly their everydayness and the ease with which they provide datafied audience information. However, a reliance on social media platforms pushes control—as well as the greatest capacity for monetization of audience activity—out of the hands of television companies and into the hands of the dominant platforms. As one of my informants noted, discussing how she managed different platforms, "we'll mostly use Facebook in the way that I think people used to think of a website, like, go to

our website, we think of Facebook as that place." Because social platforms are distributing ancillary and not primary content the platform pressures on television have not been quite as acute as those in, for instance, journalism (e.g. Caplan and boyd 2017, Van Dijck, Poell, and de Waal 2018), but social media workers within television still find themselves very much at the mercy of these external tech companies. When platforms and their mysterious algorithms change—for instance, when Facebook tweaked itself to push livestreaming video more heavily—a moment that was relatively fresh in my informants' minds when we spoke, there is a tremendous pressure to adapt quickly: "there's a scramble to do something cool within a day, something totally new." Given that they are usually juggling a minimum of a half dozen platforms at any given time, this can be quite a bit of scrambling.

By the time of my fieldwork in 2017, the dominant interpretation of social media's purpose to the television industry had become one of brand maintenance and management. Cultivating conversation and excitement about television networks and programs has long been a concern of networks (Lotz 2007), and social media is a significant new terrain where this takes place. Keeping up and staying relevant in a busy multi-platform culture requires that television shows maintain online presences as "always on brands" on social media (Albiniak 2015). As social media is a place where audiences have discussions that are outside of industry control and then become attached to the brand, establishing a strong presence is also a way to insert a guiding hand into the conversation (Evans 2014, Navar-Gill 2017). Although, as touched on in the previous chapter, onscreen talent, writers, and other creative figures are expected to play a significant role in maintaining these online presences, it has also become a central issue in promotional divisions, leading to the creation of new positions, departments, and a new class of worker for whom social media is the primary terrain of the job.

In 2017, the existence and importance of this work was clearly established. Although it seemed to be settling into some more stable patterns, much about this new profession was still up for grabs, and still being made sense of by the workers who were very much its first generation. Some of these tensions were between mindsets held by different social media professionals, others were between their profession and other forces in the industry, still others between different things they had to make sense of while on the job. The processes of working through these tensions and making sense of the meaning of the advanced audience information on social media set the agenda for how the rest of the industry sees social media technology, and more broadly, television's place in the ecosystem of digital culture.

Mixed Methods? Balancing and Evaluating Qualitative and Quantitative Information on Social Media

Social media is a rich source of both qualitative and quantitative advanced audience information. In making sense of how to value both, television's social media workers are establishing the epistemic value of social technologies for the industry. In contrast to the types of industry workers discussed in the previous two chapters, they typically lacked an ideological belief in data-driven insights or creative intuition, instead valuing the ability to situationally shift between different styles of thinking and use different approaches to information to problem solve on the fly. As one informant noted:

"Half the time you're taking the data and drawing a conclusion about the creative format and half the time you're taking the creative and drawing a conclusion about what the data should look like. It's a horrible thing to say to someone who's in academia, but that is how things work."

While he seemingly felt sheepish in admitting his lack of empirical rigor to me, this reflected the epistemological flexibility that characterizes work across this emerging profession.

In doing social media work for television, data and gut feelings live together in relative harmony, seen more as different tools in the digital toolbox than competing ideologies. This way that this plays out is at least partially in contrast to some of the dominant ideas about the fetishization of metrics in contemporary society—these professionals are aware of the shortcomings of the different types of knowledge they draw upon in their work and actively think about how they can complement and contextualize each other—even as they seek to find ways to use social data to quantify and capture the value of audience activity on social media.

Social media metrics—from the simple likes and follower numbers made visible to all in the platform interface to more complicated measures created in external data analytics software—seemingly offer the promise of an easy way to quantify audience size and engagement. However, as scholars like Baym (2013), José Van Dijick and Thomas Poell (2013), and Carolin Gerlitz and Anne Helmond (2013) have shown, the platform architecture behind social metrics shapes their meaning in ways that make interpreting them less straightforward than it appears. Simply synthesized, on these platforms, the measurement and manipulation of variables are inextricably entangled with each other. But in their statements about the moments when it was appropriate to turn to metrics, my informants seemed relatively savvy about their ambiguity. Somewhat contrary to my expectations, these were not Mosco's (2014) "digital positivists" who believed in the truth value of the big data revolution, but rather seemed aware that it was "always already cooked" (Gitelman 2013). They spoke of social metrics as "equivocal," "flexible," and capable of being "cherry-picked" to suit their needs, and emphasized that focusing too much on metrics was a mark of less savvy social strategy. And they expressed awareness of some of the specific points that scholars have raised, if not in the same academic terms. For instance, when one strategist was explaining his preference for looking at "shares"

over "likes" on Facebook, he specifically noted that likes can be deceptive because of the way they interact with reach as the Facebook algorithm decides what to show people—posts with more likes are more likely to be shown to more people, something Baym (2013) calls "algorithmic skew." (Shares also interact with the algorithm and reach, but, as he explained, are more usefully read in terms of people's desire to attach the content to their personal self-presentation rather than as a pure metric of reach.)

Their uses and interpretations of metrics were mostly thoughtful ways that shied away from some of these limitations. For instance, the biggest day-to-day use for "popularity" metrics such as "likes" was making side-by-side comparisons between different social content types and platforms to decide where to invest more and less time and effort in the future. This might play out in a variety of ways, but one example is that "If you have your Facebook, your Twitter, your Instagram, and you have a million fans on Facebook and 50,000 on Instagram, but the same number of people engage on both platforms, disproportionately, Instagram is a more useful platform" and so, despite the fact that the overall reach of the Instagram content was much less, a social strategist who did that metric comparison would be likely to increase the time they were devoting to Instagram. Or, when starting social accounts for a new program, rather than beginning from a blank canvas or even drawing much on testing data from the audience research department about the program, they were likely to turn to what Murphy (2018) calls "affective networking" by drawing on principles of collaborative filtering to look at aggregated social media profiles they thought might be similar: "we start by looking at data on what existing and potentially similar audiences are already doing." So, for instance, if you were about to start social accounts for a new hour-long medical drama, you would want to pull data on people who expressed investment in other hour-long medical dramas by liking or following them, then

investigating the data about what else they have in common to predict the profile of a likely audience for the new show. Finally, when needed, social metrics could provide an alternative value frame against other systems of quantification—as when low-rated shows were able to persist a season or two longer than might otherwise be expected on the basis of outsize social numbers (but to be meaningful in this way, they typically needed to outperform expectations for a similarly-rated show by a significant order of magnitude).

However, in the process of creating buy-in for their work, there was a key area where the big data mindset poked through, in particular, what van Dijck (2014) explains as the belief that these technologies can track and quantify previously unquantifiable aspects of human behavior and sociality. When I asked social media workers what the most important metric in their work was, the answer was consistently "engagement." This was something that I came to understand was not actually a metric per se—there was nothing even approaching a consensus about how to derive this from the various readily available quantities—but as a shorthand for the piece of knowledge that they saw it as their duty to figure out how to quantify on behalf of their organizations, basically: "how much do people care about this?" The notion of "engagement" as an alternative way to value audiences under digital fragmentation has been percolating in the American television industry for quite some time, but is also something that has proven extremely difficult to find a consensus definition for, much less a consensus way to measure or conduct transactions around (Jenkins, Ford, and Green 2013). The ability to datify social media activity allows it to enter into exchange circuits (Gerlitz and Helmond 2013), but even if these strategists were comfortable with the idea that these numbers were representational, which they clearly were not, they are much smaller scale than the numbers of the previous ratings regime, so to offer value to advertiser, they need a clear way to argue these numbers are better. And despite

the drive to find a clear way to quantify "engagement," there was also universal agreement among my informants that all social metrics had to be understood contextually. This posed a major roadblock to creating any kind of industry standard for quantifying audience investment that could be bought and sold.

To create this context for themselves, however, they spent substantial time simply "scrolling through feeds, reading" and absorbing qualitative comments from fans. They felt that this qualitative information built a type of in-depth, nuanced literacy about the audience that they could not get from "reducing it to a numbers game." Although this literacy broadly informed every aspect of their work, there were two contexts that repeatedly came up as the most important for drawing on qualitative knowledge. First was in gaging immediate reactions to content (whether ancillary social content or the primary television text), which they found more usefully done by following a live feed and mentally synthesizing what they were seeing as an "immediate litmus test," whereas metrics were more useful once they had time to accumulate and stabilize. During this initial reaction stage, it was common for other stakeholders, including executives and representatives from production, to reach out to them and ask for their initial impressions about how the audience was reacting to episodes.

Second, the overall competency they felt they developed as a result of this immersion in qualitative audience reactions was what they perceived as the ability to get in the audience's head over time, which they believe enables them to act as a representative of the audience in conversations with the network or production:

"When you read as many comments as we do, you tend to know how they think...things don't end up being a surprise...I know a lot about they think....we get a good sense of what they want in shows, what they want in social content. We feel like we're the voice of them within the network to be like, 'no, no they're not going to like this' or 'yes, they will like this.' Meaning...generally I'm not giving

my personal opinion, I'm giving the opinion of how I think the fans will react to something."

While the high level of audience interaction they have with audience members on a daily basis means this is doubtless true on some level, there is also much to be unpacked in the relative unskepticism with which they accept the truth value of the qualitative information they get from social media as compared to their caution with social metrics. As Van Dijck and Poell (2013) point out, even setting aside the specificity of social media that has proven "a potent instrument for rerouting conversation and manipulating ideas" (Van Dijck 2013, p. 74), basic familiarity with methods literature reminds us that tapping into people's unconscious idea formation without effecting it is impossible. In line with this, previous work on media industry and celebrity use of social media, including my own, has shown that the industry side plays a powerful role in determining what shape the conversation takes through normative modeling and reinforcement (Evans 2014, Marwick and boyd 2011, Navar-Gill 2017). In claiming that their immersion in social media posts puts them in the heads of the audience and allows them to speak as a representative for fans, they elide their own substantial role in routing discourses about programming. Additionally, unlike the production professionals in the previous chapter, who often brought up the fact that the people on social media represented a narrow, if particularly devoted, fraction of the audience worth thinking about, but not worth thinking about to the exclusion of all others, social media professionals never made such qualifications. Perhaps because of the more limited scope of their jobs, they considered the social media audience to be the audience, or at least the only audience that mattered. Their claims to be representing the audience to the rest of the organization are more complicated—and they are more personally implicated—than the disavowal of "not my personal opinion" claims.

In synthesizing the ways that this group of workers seem to process the quantitative and qualitative information about audiences that they glean from social media, this example potentially adds some interesting dimensions to our understandings of how people manage different forms of knowledge in the digital economy. Although they are the class of workers that I write about here most forged in the logics of digital media instead of those of traditional media, social media workers are neither programmers nor data scientists. Their mindsets about this information, surprisingly, look much more like those of qualitatively minded critical data scholars than "data fundamentalists" (Crawford 2013). In fact, they probably could have used a bit of the information literacy and skepticism they applied to social metrics with regard to their processing of qualitative information.

Their embrace of social media as "more than a numbers game," however, is significant in terms of establishing what these technologies mean to the industry as a source for the production of knowledge about the audience. While metrics were a dominant frame for understanding social media success for television at first, increasingly, language and emotion have become the focus.

Ad Men or Fangirls? Imagining Social Media's Place in the Television Production Ecosystem

Promotional work in advertising and marketing has long negotiated tensions between its inherently commercial nature and the creative identities that workers bring into the job (Hackley and Kover 2015, Nixon 2003). Both broadly and in the specific context of promotion in screen industries, digital promotional cultures are a space where this longstanding tension is amplified and complicated (Grainge and Johnson 2015). Despite their jobs' attachment to advertising and marketing, the social strategists I interviewed believed that their jobs were distinct from "normal" television marketing. There were, however, two rather clear-cut paradigms for how interviewees parsed the difference, defined by where the strategists imagined themselves to be in

relation to both creative production and digital culture. The critical distinction between the two is illustrated by this contrast between two different mid-level social media managers' reflections on what was special about their favorite experience representing a show thus far in their career:

"Like the...in-character account was amazing, because then you're part of the show and you get to tell these mini-stories, like [the two main characters] went to Dodger Stadium and went streaking and it was a whole story that took place. *In the fans'* eyes, that's canon, you know?"

"It was really fun because we really want to connect with the audience and we're fans of the shows that we work on so it's like I'm a fan of the show and get to talk to these other fans and get them hyped up and we can bond over the fact that we both watch a show together."

While the first social media manager saw his work on social media as a transmedia extension of the show, clearly separating himself as a professional from the "fans" and describing his social media work as a "canon" part of the official narrative, the second considered herself a member of the audience with, as she put it later, "just a little bit of authority because you know what's happening." In other words, the critical distinction between the two ways of seeing the job was whether practitioners viewed the work as being primarily located in a space between *advertising* and production or advertising and fandom, and the mission of "engagement" as being about distributing additional content or building and supporting social relationships.

Despite the fact that both imaginations of the job consisted of essentially the same set of functions, the language the two groups used to describe what they were doing was quite different and evoked a very different sense of interaction with fans. While the group that aligned themselves with production very much used the language of advertising professionals, speaking about planning a "campaign," creating "assets," and writing "copy" as they tried to build a stronger connection between the audience and the content. As one informant explained to me, "It's not just us flying by the seat of our pants. We obviously have a lot of strategy and larger

corporate goals." While the language of "fans" has generally permeated industrial discourse in a way where it are used imprecisely and interchangeably with audience" it was only among this particular subset of my informants that there was a further slippage into the notion of "consumers" as the same entity as the previous two (even the businesspeople of Chapter 1, who were more expressly invested in the behavior of "consumer" avoided such simple equivalency). And, for all the time spent communicating with audiences and data analysis tools at their disposal, the advertising focused group held a rather old media perception of their audience as an unknowable, unpredictable Other that might or might not appreciate their work; as one noted "we'll deliver a solid strategy, and people will either click with or they won't." However, although they used the language of advertising to describe it, they were careful to distinguish their content from advertising, instead trying to align it with production and transmedia storytelling: "Successful social content is something that extends the story of the show and kind of creates a new piece of entertainment in its own right." One challenge these strategists often discussed was how to make social media communication that had to go through several layers of corporate approval feel organic and timely when it was not. Situated in all this planning and careful execution, the effect often made them come across as quite calculated.

Conversely, the group that saw themselves more as professionalized fans used language of emotional relationships to describe similar tasks instead, evoking far more of a sense of naturalized interaction (and, for reasons that I will discuss momentarily, tended to actually have far more latitude to interact with audience members spontaneously without approval from higher-ups). For instance, as one interviewee described:

"You become friends with people and I feel like it makes that person want to watch the show more and talk about the show more and engage with the show more to know that there's someone there from the official account who's talking back and being like, 'yeah, I feel the same way, I agree. Let's talk about it. Let's be friends and continue this conversation.' It feels very personal."

This description is quite reminiscent of Nancy Baym's (2018, p. 20) "relational labor that takes friendship as its aspiration" while simultaneously managing individuals and a broader crowd. However, the core aspect of relational labor is the development of social structures that will support long term work, and while tv social media professionals who take this approach certainly build these structures, they are not the beneficiaries of them. They perform this labor in a context where their identities are invisible (at least in the public-facing spaces of their work), acting instead as the personification of (a variety of) television brands and unable to cash in personally on the future investment that building this goodwill supposedly engenders except insofar as the experience is a resume item. Their relational labor is invested on behalf of their employer and the future of their employer's brand(s).

This relational approach typically grew out of a pre-existing immersion in the digital cultures they were tasked with connecting with. These strategists tended to be familiar with fandom from experience—some were even recruited into their position because their content creation as fans had been noticed by someone in the industry. Much of what this group tried to do was channel the relationships and fan practices into something useful for the brand of the program. In becoming part of industry operations, they learn to take their tacit insider knowledge of fan communities from their leisure time and codify it into strategies with specific aims. Their approaches tend to be very conversational, and very similar to those they would take when becoming part of a fan community themselves. They talk to people about the shows, build friendships (or "friendships"), and then find ways to operationalize them, whether simply by increasing chatter or by asking fans to create content for them. For instance, when the show one social coordinator I spoke to was cancelled, she "reached out to the fans that I talked to all the

time...and they sent in some videos and talked about how much the show meant to them." They regularly solicit other, nonprofessional fans for content that will be shared on corporate feedsfrequently the same types of "assets" (image manipulations, GIFsets, memes), that the other group spent their days designing and making (they certainly also made such assets, but the feeds they managed were more likely to feature a mixture of fan-donated and industry-created content). In this way, they are tapping into their knowledge of fandom's gift cultures and the way that these are enacted through interpersonal connection. While these actions were obviously driven by corporate goals, there was usually a more complex relationship being enacted than simple commodification of fan labor. There is, of course, the oft-discussed idea that there can be a great deal of affective pleasure for fans in having their work used in this way: their work will reach a wider audience, garnering increased likes and shares. Beyond this, however, several my informants spoke of remaining in contact with fans whose work they had used in this way *years* after the end of the shows they were involved with together. Many of these relationships had evolved into genuine friendships; in two cases they had even recruited their fellow fans into professional positions in television social media.²²

Where the distinctions between these two paradigms for understanding social promotion's place in the television ecosystem becomes really intriguing, however, is in thinking about the identities and locations of the people who took each approach. While I hesitate to quantify precisely how many of my interviewees ascribed to each of these paradigms because they were not cleanly one-to-one with the people (there was a certain porousness of the

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²² By contrast, while a few of the more advertising- and production-minded social media professionals did talk about building "personal relationships" with fans and fandoms, they emphasized that you had to cut them off when you moved on to the next show or client, even alluding to notions of break-ups: "you can kind of miss it when you have to move on to a new fan base, but the possibility of getting to form a relationship with a new one is what makes it exciting."

boundaries between them over the life cycle of an individual strategist's career, see footnote), the split was heavily gendered—and substantially, though less dramatically, aged and raced as well. The vast majority of those who saw social promotion as a creative productive job were white men in their 30s, while those who approached it as a professionalized form of fandom were largely women in their 20s, many of whom were women of color.²³

Beyond the demographic difference, however, there was an institutional demarcation as well. The ad men worked at independent digital agencies that contracted with networks and streamers to do social media promotion for their shows. The fangirls worked *at* the networks and streamers; their insider status at least partially explains the greater autonomy they seemed to have over their ability to speak as the voice of the shows they promoted. Anecdotally, unbeknownst to them, my informant pool included a pair of people who ran the same accounts for the same show—one had previously operated them at an agency before they lost the distributor's account, the other now operated them in-house. As practices like social media work become more institutionalized, they tend to become more centralized in media conglomerates. During the process of this centralization, social media seems to be organizing around a more feminized conception of what this work should look like. In academic literature about the industrial embrace of fandom in the digital era, a recurring theme has been the industry's

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²³ While these paradigms seemed like distinct approaches, there could be quite a bit of evolution over the course of a career. As they moved higher into management, fangirls tended to have to spend more time working with brand partners and less time directly monitoring social accounts, which led to a blurring of vocabulary and approach. One informant, who was two months into a big promotion noted that this transition came with a keen sense of loss for her: "I unfortunately don't do as much [interaction with fans] now because...I was a coordinator, but now I've...moved up a little bit, so I manage someone who is now doing all of that stuff. I did it for three and a half years and I think that's my favorite part of the whole job, because you're really connecting with people who are interested in the same things you are." Conversely, moving to a job at a distributor whose approach to social was seen as more in-tune with social fan practices could awaken the fangirl inside someone who was used to being an ad man, as noted by an informant who had recently moved to a streaming service after a decade of work at agencies and linear networks where it was difficult to create buy-in around social without putting it in familiar advertising language. While he still thought of himself as a "content creator" and was certainly not approaching the job in quite the same way a fandom insider who was professionalizing might, in an environment where buy-in was a given, he was embracing more of the relational aspects of the work than he had previously felt able to.

apparent preference for "masculine" fan practices over "feminine" ones (Busse 2009, 2013, Jenkins 2006, Johnson 2013, Scott 2019, Stanfill 2019). One of the tensions, both between fans and industry, but also in different threads of scholarship about the relationship between fans and industry, has been the question of whether fandom is first and foremost about a community of people or a relationship to a text. Industry, for obvious reasons, has historically embraced the latter, demonstrating blindness to the more "feminized" community dimension. The evidence of this specific slice of social promotion practices becoming entrenched in their more "feminized" form is not necessarily contradictory to these arguments—the practices of my informants are far from the more transgressive forms of reparative pleasure fan scholars tend to place in opposition to "masculinized" practices. However, it does show that the American television industry's understanding of how to make use of fan audiences is expanding to include interpersonal and affective bonds as part of what they are trying to capitalize on.

The embrace of social bonds as a key part of television's digital promotion also fits into something that feminist digital studies scholars have referred to as the broader "feminization of the internet" (Duffy 2017, Jarrett 2014, 2016, Weigel 2018). As Kylie Jarret (2014, 2016) argues, that the current internet's most valuable affordance has proven to be its vast powers for the datafication of social relations and communication makes the "women's work" of social reproduction the backbone of the digital economy in which we all participate. Writing about influencer culture, Brooke Erin Duffy (2017) shows that those who actually (try to) make a living through work on social media, there is a messy blend of the personal and the professional in this work. Though working in different genres of social media production than the beauty and fashion spaces she documents, these television social media workers have reached the point that her "aspirational labors" strive for: they have made social media into full time paid work.

However, they have done so at the expense of the autonomy and individuality that other, more precarious types of digital media workers cite as one of the upsides to their working conditions, instead subsumed by the media brands they represent (see also Marwick 2013, Neff 2011).

There are a few implications to the television industry's greater embrace of the "fangirl's" vision of social media work at the expense of that espoused by the "ad man." For one, it solidifies the centrality of the primary television text over experiments with transmedia storytelling as the main practice of "TV." While social media "content" may add depth to a viewer's understanding of the TV text, the US industry seems to increasingly be moving away from social practices that act as storytelling forms in their own right, instead focusing on those that "fuel" interest in the central longform narrative. This maintains some of the senses of gatekeeping and hierarchy in television production. Additionally, it represents a slight reassessment of the industrial value of the "fan," ascribing more value to feminized emotions, networked relations and gift cultures as well as simple veneration of the text but setting up "professional fans" to act as models for how to express these "appropriately."

Preaching to the Choir or the Uninitiated? Imagining Social Media Promotion's Audience

A third key tension that the social media strategists I interviewed discussed was negotiating who social media promotion work was supposed to engage with: was their job about creating a value added experience for fans who already supported a particular television property or drawing in new audiences? Content that serves one of these groups tends to alienate the other; new audiences are confused by the things that excite devoted fans, who in turn are likely to feel bored or overly "sold to" by things targeted to the uninitiated. Even within the audience segment

²⁴ There are of course still plenty of experiments with notions of transmedia storytelling in other forms, including independent media and even on major platforms, as with Facebook Watch's Skam Austin.

social strategists conceptualize as already fans, a degree of content modulation is required, as one interviewee noted, saying: "If you're just a casual fan you might want to see photos of the stars, if you're a super fan, you might want to see props. If you don't care about a show already, you probably don't want to see props." Additionally, in navigating the tension between evangelism and fan service, social media strategists were often acutely aware of the gap between their more sophisticated digital literacies and the entrenched ideas about the purpose of promotion coming from their superiors' more traditional marketing and television industry approaches, which tend to primarily focus on getting the word out with the largest possible reach. There are a few different ways that social media managers approach this tension, ranging from trying to develop content that would serve a purpose for both audiences to trying to leverage social media's as the first step in a two step flow strategy.

The question of who the appropriate audience for social media engagement is emerges from navigating between the more traditional and digital expectations about marketing that may be at odds in television organizations. One social strategist who had worked as an agency contractor for both legacy networks and streaming services explained this dilemma in depth:

"If their industry isn't digital they tend not to be interested in it for its own sake. They're seeing it purely as marketing and they try to manage it like normal marketing, which it isn't. Part of the magic of social media is when you tweet at something you love and they interact back. It isn't a megaphone, it's a conversation...so for a lot of more traditional clients, what they want is for you to use it as a megaphone and just...tell people every day, 'buy the DVD, buy the DVD.' It's always a struggle...to explain you have to...give the fans something back so that they then buy into it...you have to treat them they're special and important, and you have to convince them you're listening...so liking the things they post on your page, or faving their tweets, or simple replies. But a lot of the larger studios and brands, they tend to see engagement as a risk, because it's like 20 more things each day that they feel they have to approve, and it has to go through this whole corporate chain of filtration and sanitization and it comes back out as completely non-human and non-spontaneous if it comes back out at all. But digital clients, they tend to understand that the whole game is engagement. You might have a million people who follow you, but what matters are not the million people who

follow you, what matters are the 30,000 people who love everything you do and interact with everything you do. Those are the people who will buy the DVD....who will actually follow your calls to action...and if you engage with them then they'll play ball."

As he explains, in the legacy conceptualization of marketing, the important thing is reaching the most people to get the message out, and this communication is largely a one-way street, characterized by asking people to tune in at a specific time or perhaps make a purchase. This traditional, corporatized way of thinking hamstrings the potential for interactivity in social spaces because every post must go through several layers of corporate approval, hampering the natural conversational flow that social media affords. This sense of constraint was frequently echoed by other strategists working in legacy television, who felt directed by management ideas that social media marketing should be similar to previous types of legacy television marketing, saying, for instance, "A lot of the stuff we created was sort of like, a please tune in type of thing, so that's not really how you talk to current fans that's...how you talk to new people." This reflection links beliefs about the purpose of social marketing to ideas about what type of audience it is supposed to address—in this case, one that they are trying to get the word out to.

What social strategists characterized as the more digitally literate view of social media as a promotional space, however, imagined the more important audience for social promotion as the one that was already watching the show. Rather than trying to expand viewership, this approach focuses on nurturing connections with the most active fans, both giving them additional content to extend their relationship with the television property and in some way making that relationship feel like a two-way street. Importantly, while the agency interviewee quoted above characterized the split in approaches to the social media space as being between digital and legacy clients, across my broader range of interviews, the split was not so clean, with plenty of legacy networks—in particular those with younger audiences like MTV and Freeform—having

sophisticated investments in social media. This was reflected in corporate structure as well as management experiences; interviewees pointed to the presence of the phrase "social media" in job titles and department names as one sign that their organizations were more literate about social's real value. And, as several noted, traditional forms of promotion in forms like TV spots and billboards are still a major investment for television companies, so social media remains only one portion of the broader promotional landscape.

Regardless of what approach management endorsed, the question of whether and how social media promotion needed to serve both types of marketing needs and thus both types of audience remained. Some social strategists tried to serve both audiences at the same time.

Others, however, their job as one that catered exclusively to superfans—however, in doing so, they were trying to leverage a two-step flow and get those fans to do the work of interacting with and creating content for the second audience of potential new viewers.

For those who imagined their audience on social media as consisting of both dedicated fans and potential new viewers, it was important to think about how content could be pitched at a variety of levels and perceived by audience members with different levels of literacy about the series. As one interviewee noted of her approach to creating balanced social content, "Not everything is just for the super fan. We look to see what the fans want, we make sure to get it...but we have a mix of things like...this content would make sense if you had never seen the series, this content would only make sense if you had seen every episode." Navigating context collapse, or the idea that on social media we are seen by people who we play different roles to in real life, is a central tension of life on social media (Marwick and boyd 2010). Figuring out how to simultaneously address different audiences with wildly different levels of literacy about a text without confusing or alienating others is something of a corporate version of such context

collapse. Making different content for different groups, however, was only one of the approaches they used to deal with this context collapze of speaking to different audiences with radically different knowledge about the television series on the same social feed, however. They also tried to think about creating content that could have universal appeal because it simultaneously could be read with specificity by fans, but still resonate with a broader audience that lacked context. For instance, memes and quote graphics were cited as content types that were able to gain traction across audience types:

"For our comedies, we have memes. You don't even really have to watch the show to appreciate that....there was a great quote on one, talking about slut-shaming, it was saying 'guys are never called a slut'. We posted this graphic...and it got 50,000 shares...I know a lot of people who shared that...identified with the quote even if they hadn't seen the series."

Within the context of her program's storyline, a quote about slut-shaming held an additional layer of meaning for fans through their relationship with the character depicted on the graphic, its reflection of real world experiences created a potential identification point for those who were unfamiliar—some of whom might take note of the convenient branding on the image and check out the program to see if it spoke to them further. A third approach for making social content that navigates across this audience context collapse is to try to create things that, rather than offering layered meanings to different audience groups, simply serve a different purposes for each one:

"For example, we were like, how do we get new fans...who haven't seen it before and and might not have time to catch up? So we're doing a fan recap contest. A lot of superfans are recording recaps of what happened on the show so far...[and] we're posting them."

In this case, for "superfans," the contest created an opportunity for (sanctioned) fan production that might receive acknowledgement and promotion by official show representatives, something that often excites fans and also has reinforcement effects by tacitly endorsing particular forms of

fan participation (Marwick and boyd 2010, Navar-Gill 2017). At the same time, the video artifacts these fans were making then served a second purpose of getting new viewers up to speed on the events of the series so they could easily watch the new season in real time. In this way, the show's social media coordinator was able to use the same content to offer two different audience experiences, while leveraging the labor of already dedicated audience members to try to attract new ones.²⁵

This last strategy is closely related to the other dominant approach that social strategists take to imagining their audiences, which views social media as a tool for speaking only to existing fans—in the words of one informant who believed this, "social media is more fan service than it is converting people." In this perspective, the goal is to entertain and deepen fans' existing relationships with the property. But in focusing on fans, they keep one eye on growing the audience:

"We're speaking to people who already are members [of the fandom] andthey can be the marketers or they're just continuing the conversation....but it's not our job to get new fans, it's our job to talk to the current fans."

This approach of focusing on getting fans to take industry-produced (or endorsed) social content and share it with others relies on understanding social media logic. Sharing is, as Nicholas John (2017) argues, the constitutive activity of social media and also where the link between interpersonal relations and commercial profit is forged. In trying to "give fans cool things that they want to share," social media workers are harnessing the logic of sharing to spread messages about their brands. This also requires carefully calibrating content so that it is promotional

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²⁵ Practices like this are an example of the media industry profiting off the free labor of fan creation. The ways in which media industries have co-opted and potentially exploited fan cultures and practices for their own gains have been extensively written about by a number of fan studies scholars (for instance De Kosnik 2009, Stanfill 2019). While these arguments are significant and certainly related to what I am discussing here, my aim in examining these practices here is to consider how they are understood by industry practitioners rather than to add to the already rich literature critiquing the ethics of such relations with fans.

without feeling overtly promotional because "people probably aren't going to attach something to [their] personal brand that feels super marketing-y...we want to create the type of stuff that...you're going to want to repost because you feel like it actually increases your personal social cache." In their re-envisioning of the audience for promotional content, often pushing back against the directives of superiors, television's social media workers are working to position the medium as part of a broader digital ecosystem.

Building Buzz and Driving Clicks: Imagining Social Media Promotion as a Site of Value Production For Industry

A final central tension facing workers in the social promotion space is understanding and articulating the value of this work to television as a business. Even as social media has become an entrenched part of the television ecosystem, it remains quite difficult to establish concrete evidence that these practices deliver meaningful direct ROI (Neel 2012, Spangler 2012, Winslow 2013). In and of themselves, "affect and social proximity are not valuable per se, because they are intensive, hard to measure and to compare" (Gerlitz and Helmond 2013, p. 1361). The clearest monetization of audience interaction on social media, in the forms of user data and advertising revenue, remains firmly in the hands of the social media platforms rather than the television companies, who like other brands are in the position of finding a way to make this ecosystem produce value for them by leveraging affect and social proximity to spread useful ideas about their products (Murphy 2018). While social strategists see their jobs as absolutely essential to the performance of a contemporary media organization, they are fairly forthcoming that it can be difficult to articulate why they are so valuable in the easily quantifiable terms their superiors want to see. In lieu of clear revenue numbers to point to, it's important for social promotion workers to create some type of buy-in around the value of what they do.

One significant thing that social strategists argue their work leverages for television companies is social media's ability to act as a catalyst for other forms of publicity critical to maintaining relevance in the digital age. One of my informants grouped these things under an umbrella concept she termed "organic buzz." As a "strategic goal," organic buzz is something of a contradiction in terms: carefully planned and cultivated chatter that nonetheless comes across as "authentic." There is little that is more damning in the social space than something coming across as "astroturfing" or attempting to create a "fake grassroots" discourse (Jenkins, Ford, and Green 2013). The "fuel" metaphor discussed at the beginning of the chapter arises from the desire to facilitate and manage "grassroots" conversation without being perceived as overly controlling. When this is successful, the result is "organic buzz." What this concept amounts to is an intensified digital version of "what we used to call word of mouth" that takes advantage of social media's affordance of allowing a variety of different actors to share the same stage. It operates on three levels—audiences discussing television programs at the grassroots level, the more "exclusive" discourses of cultural intermediaries and media gatekeepers including industry insiders and journalists/critics, and the validation that comes from platforms and algorithms when content is surfaced—and relies on the ways that these three streams cross with and amplify both themselves and each other on interactive social platforms.

What this looks like in practice is that posts from the different layers of human actors beget more posts eventually begetting algorithmic validation in the form of trending on Twitter (or what I came to understand as the real holy grail of the platform environment in which I conducted my fieldwork: "front-paging Reddit"). Where the work done by social strategists enters this picture is when a successfully placed piece of social content accelerates and elongates this process by providing something more to talk about, and ideally "earned media," or

unprompted coverage of the social content itself by established legacy and digital outlets: "So we're going to do something so interesting that Entertainment Weekly is going to write a blog post about it, That is so much more valuable to us because it extends our reach so greatly." At this point, the Entertainment Weekly blog post finds its way into a new round of social media posts, creating more social media posts, creating more algorithmic validation, and so on and so forth. This ongoing, scalable amplification, intensification, and ultimately datafication of audience activity is the economy that social platforms operate on (Gerlitz and Helmond 2013). While the platforms absorb the primary value of this data, participation is highly valuable for shaping the message that is amplified and maximizing the reach to produce indications such as "like" counts that, as Baym (2013, n.p., emphasis mine) since they are "so visible, accessible, and seemingly such transparent markers of popularity and engagement, higher numbers are widely taken to imply more legitimacy, popularity, visibility, and influence...and thus more economic potential." Importantly, while actively mobilizing users with high network centrality is usually important for brands trying take advantage of this (Murphy 2018), television social media professionals emphasize that reaching out to influencers is a measure of last resort successful organic buzz is highly dependent on a text resonating with audiences on its own. It is when something isn't working that they pursuing influencer campaigns by finding someone with an existing following and "latching onto them like a remora." This is likely a factor of the most relevant "influencers" in social media conversations about television largely being critics, whose needs to appear uninfluenced for all stakeholders to benefit.

Finally, while my informants repeatedly emphasized that relying on social media exclusively to push people to traditional revenue streams like buying DVDs and watching live to view ads was a dated way to approach marketing, they did note that, occasional reminders that

doing these things was a way to support the property they love do work when situated in a broader approach of maximizing the investment of superfans. In the case of direct transactions like DVD sales, tracking links can be embedded in social media posts to (try to) directly demonstrate ROI, although this can be "kind of scary" because it offers a number for executives to fixate on that represents an extremely reductive sense of what is going on in social media promotion, entirely eliding the other, more important means of value generation.

In addition to these promotional functions that are highlighted in their job titles and descriptions, however, there is a significant secondary way that social media professionals in television develop organizational buy-in for their work, which is the cultivation of a sense that they are audience experts. Although still broadly defined as promotional workers, they have slipped into this role alongside and, in some ways above, those in traditional audience research roles. One of my informants explained this, saying "We are listening to the people in a way that no one else understands. We work most directly with the consumer." Their work represents a significant site of industrial production of advanced audience information. In arguing for its value beyond specific return on investment, they make the point that in television, audience expertise is more important to cultivate than DVD sales.

In the future, they argue, the expertise that social media workers gain by their close engagement with advanced audience information everyday can potentially offer the industry a new kind of future-proofing. The business has always been focused on predicting these people's desires. Now, they have a class of worker whose task is explicitly to insert themselves into the audience's social network and get to know them.

Mediating Between Television and Digital Cultures

As an emergent subclass of promotional work that is entirely the product of algorithmic culture's technologies, social media workers in television are setting the agenda for how the industry understands social technologies, and more broadly, where it fits in digital culture. In examining the ways that these workers understood themselves and their jobs in relation to their organizations, as well as how this work seems to fit into the broader picture of the American television industry, it seems that they serve a significant translational function in terms of negotiating inconsistencies between television operations and the logics of digital life. This is one reason why it is not surprising that, as these practices become more entrenched, it is their knowledge of digital cultures that has become the more prized asset rather than their advertising industry savvy.

One way that these workers are called upon to share their knowledge with significantly higher status television professionals is through training them about social media behavior and understanding how audiences interpret content. They are brought to sets, trailers, writers' rooms, and the homes of showrunners and stars for viewing parties where they tutor the others in engaging with fans in social media. While some talent is quite savvy about their online presence, others need a lot of help understanding that online fans will hang on their every post—the background of what they think may be a fun behind-the-scenes photo will be scoured for clues, so they have to be sure there isn't a supposedly dead cast member or a whiteboard full of plot points somewhere behind them (both true stories).

Training the less digitally fluent in how their social media content will be received by audience is a particularly clear way that these workers translate digital culture for others in television. It is also an example of the ways that they are increasingly seen as leading experts on

audience opinions and behavior within American television organizations. Another metaphor for television social media that appeared across multiple interviews I conducted was the notion that this space acted as a "perpetual focus group" for the industry. They are not doing research in any systematic sense, and formal audience research (which they regularly gestured to) is certainly still valued in the US industry, but there are ways that social teams have come to serve some overlapping functions, there is a sense that social media reactions are more "authentic" representation of what the audience believes because they are "unforced": "you do a survey and you circle one through five, people who do this are being forced to [answer questions] whereas on social, you are independently putting your opinion out there." As with some of the other metaphors used by my interviewees, the focus group metaphor contains some unintentional irony—a good focus group is a well-controlled conversation—yet part of their reason for invoking one is to disavow their influence in the conversation.

Further, though, in spite of the flawed nature of the data they are working with (Baym 2013, Welteverde, Helmond, and Gerlitz 2014), the appeal of looking to social media professionals instead of research professionals is often in their ability to offer an immediate response, which my informants described being asked for frequently by everyone from showrunners to c-suite execs. The idea of real-timeness has been a central feature of thinking through the changes in digital life (Coleman 2018, Chun 2011) Although digital scholars highlight the constructed nature of this idea of "real time," they also note that it is something that is used to place digital media in opposition to traditional media (Welteverde et al 2014). In the television industry, social media workers are often charged with finding ways to bridge this gap. While (setting aside entirely the notions of artistic distinction dissected in the previous chapter and focusing exclusively on the practicalities) production itself is simply too removed in time to

react to audience response from social media. A social media team, however, can react in real time to reframe reception and redirect conversation, and indeed, my informants emphasized their ability to be "responsive" and react more quickly than the show could to highlight what the audience is grasping onto, as well as to try to recuperate what isn't working. Social media workers also have to navigate the temporal fact that tv has become unstuck from the linear schedule, and people can become interested in what they are doing at any time: "our platforms are active year-round, not just when the shows are on because people discover our series year round...on Hulu or on Netflix, and they can come into the fandom on any day of the year." They see the "integrated systems of watching" (Moe et al. 2016) that they are building as the future of the medium:

"I think...the idea of thinking of it as 'social' will be very antiquated, in the next 10 years. It will be like referring to 'talkies' where at a certain point there's obviously just sound in movies...we'll think the idea that you're sharing something with your friends as just an inherent part of the media you're consuming."

The idea that social media could be as integral to watching television as audio is to watching movies seems on its face a little silly and simplistic, particularly given what an opt-in part of the experience it is. But in the way that social media workers are charged with trying to make television's past and future play nicely with each other, modeling live-tweeting practices to use social engagement to drive the audience back to the ad-supported live broadcast one moment, and making sure that audiences who start the show on a binge-watch years into its run feel welcomed the next, it makes sense that they imagine a future in which they are the indispensable glue that hold the audience's different ways of interacting with television together. To return to their own metaphor, they provide the fuel to power television's integration into digital culture.

Chapter 5 Conclusion: The Contemporary Texture of Audience Knowability

Two days before I submitted my dissertation, my afternoon was interrupted by the announcement of a series order for a new program at soon-to-launch WarnerMedia streaming service HBO Max. They were rebooting *Gossip Girl* to update it for today's social media climate. The press release for the new show (to be created by the head writer who started that first writers' twitter with me) talked about how this time, rather than a single blogger terrorizing the privileged youth of Manhattan, Gossip Girl would be all of us. At the Television Critics Association tour a week later, executive producer Josh Schwartz explained that "we are all Gossip Girl now, in our own way...we are purveyors of our own social media surveillance state" constantly documenting and sharing our own lives and the lives of others. The evolution of this premise from the 2007 version reflects both shifting sociotechnical conditions and experiences of the audience—this version is anxious about the omnipresence of a reactive audience. In 2019, questions about the experience of audience remain salient in television, and in fact for everyone in algorithmic culture.

The television audience has been, as Ien Ang (1991, p. 2) wrote, "a taken-for-grantedly...unknown but knowable set of people," seen only through as an abstract imaginary construction of television institutions. In examining the different shape it takes when constituted by contemporary technologies of algorithmic culture, some have argued that it remains the same kind of construct, albeit one with many more dimensions (e.g. Turow and Draper 2014). I generally hesitate to take a strong stand on the particular point of whether these technologies

have made the audience more knowable. From some positions, the audience seems no less an imaginary way of seeing a mass of unknown people. From others—where industry professionals are going so far as befriend members of the audience—it seems like *something* is absolutely more "knowable." But whether the audience itself is any less imaginary, the advanced audience information offers at least a very different representation of its qualities.

Attending to the lived experiences of professionals in an industry where knowledge about the audience is a starting point from which all other operations flow suggests that if nothing else, however, the texture of that taken-for-granted "knowability" Ang described has changed substantially. This matters. Derek Johnson (2014) argues that that the ways notions of audience are conceived and circulated in the industry's cultural imaginary is a central structuring concept for work in television. This imaginary is something that professionals take up positions in relation to define themselves and their work. In a television industry that is part of algorithmic culture, they orient themselves around the knowability" produced by social media and big data technologies. Moreover, the processes of sensemaking and reaction to ideas about that knowability are an important space for working out what television is, does, and is distinguished by in algorithmic culture.

When ratings were the dominant means that television professionals experienced the audience through, the texture of knowability was very different. Synthesizing the insights from several key scholars' work on the audience as a construct or commodity, there are some clear features of the old texture of a knowability emerging from ratings technology (Ang 1991, Meehan 1993, Napoli 2011):

 Based in a quantitative social science epistemology using principles of inferential statistics

- Manufactured for commercial purposes rather than naturally occurring
- Structured audience attention as a zero-sum competition
- Could be encountered by industry professionals *only* in the form of an aggregated representation
- Size and composition are its only knowable features
- Lacked insight into situated social behavior, context, or individual idiosyncrasies
- Depersonalized and defined only by the shared state of spectatorship

For television professionals, encountering an audience through these characteristics is a relatively un-nuanced experience. Making sense of the knowability of an abstract demographic group—or "taxonomic collective," as Ien Ang (1991) described it—is a process that requires a great deal of projection, often in the form of broad stereotype, on the part of the person doing the sensemaking. The ways that big data and social media and social media shift the characteristics listed above make that experience of sensemaking very different. These technologies make the audience into a database of individual profiles that can be both combined into various sorts of aggregates and viewed at the individual level if desired. (Footnote: When I describe the audience as a collection of data profiles, I refer to both the quantitative behavior tracking aspects of such a profile and the fact that particular qualitative statements made on social media can be attached to those profiles.) Making sense of this *feels* very different, producing an altered cultural imaginary of audience. These changes to the characteristics listed above alter the texture of audience knowability.

For instance, the ability to view the audience from so many different angles (including both aggregate and individual) makes it possible for different workers, firms, and industry sectors to build different audience constructs. In the past, sharing a standard required a great deal

of assumption and projection onto vague collectives to answer the television industry's different critical questions. Why did this program resonate but this one flop? Which show's viewers are most likely to buy this consumer product? The greater orientation toward this type of sector personalization allows different stakeholders within to think of the audience through the characteristics that answer the questions most relevant to them. Parsing a collective of data profiles, for instance, makes it possible to make a far more sophisticated argument about what type of profile is likely to purchase household cleaning products than finding a concentration of women 18-49. To be sure, there is still plenty of projection and assumption. When, for example, social media specialists claim to speak on the audience's behalf they are extrapolating a great deal from what they "know" based on this more complex information. But the ability to imagine a personalized audience through the characteristics most meaningful to your specific purpose as an industry professional can, as the political lens that television writers so often bring to their parsing of advanced audience information shows, be very powerful.

By embedding the structures and assumptions of a different set of technologies into the audience imaginary (see Brock 2015), big data and social media restructure the competition for audience attention. With ratings, being a member of the audience was a temporary state of spectatorship that allowed the audience to be counted. It was a zero sum game, audience member attention is on one show; they are counted in one location or another at a particular time.

Fittingly, considering that television has increasingly decoupled from the linear schedule in the digital era, the audiencehood constituted through algorithmic technologies is no longer so temporal. Instead of a state of spectatorship, membership in any particular television program's audience is figured as a persistent character trait within a database of other traits instead of a temporary state of spectatorship. Individuals are thus in the audience for multiple things at the

same time, and their membership in different audiences creates another set of data points that can be examined. This movement away from seeing the audience as a zero-sum competition means that other audiences can be resource rather than rival. There is value to be found in understanding how audience membership overlaps. Social media workers for a program rely on seeing what other audiences the members of their audience are part of to help design content strategies. Netflix-style creative development is based on identifying productive and/or underserved intersections of different audience interest groups.

Related to the restructuring of audiencehood as a persistent character trait, the new texture of audience knowability also emphasizes networked relations over the taxonomy that dominated the way audiences were understood through old information regimes. Size and composition offered a depersonalized representation that abstracted away all social context. Networked relations are experienced as a way to experience some of that social context. The networked critical reflexivity described in Chapter 3 shows television writers thinking through both the networked relations among audiences and production and the networked relations between the different stories that make up our broader cultural landscape in the United States. Connecting different data sets, especially those containing third party consumer purchase data, is a key aspect of trying to update transactional standards in ad-supported television. In television promotion, the relationships between different audiences/fandoms and the ability of audience members to serve as conduits to their own articulated networks on social media platforms are seen as valuable resources that can help a program expand its audience. For industry professionals, the experience of seeing membership in an audience as a trait rather than a state of being and the emphasis on networked relations work together to produce a belief that you can

understand your particular audience through seeing its relationship to cultural products more broadly.

These shifts in the texture of the audience imaginary produce a datafied version of the individuality, personality, and social context that were invisible in previous audience information regime. This offers industry professionals access to a representation of social reality that they can draw on in their day to day practices, but also offers affordances and space to reach through the representation and encounter situated people, as when they develop direct message friendship that may last for years with particular audience members—in other words, opportunities to "know" members of the audience. Knowing a single person who is in an audience is not the same thing as knowing "an audience" of course, but it is a very different thing to make sense of than an audience where no individuals are reachable.

However, given that the dimensions that datafied representations of audience try to get at are the ones that were totally excluded from ratings, industry professionals tend to perceive this as a dramatic sea change (perhaps more dramatic than it actual is). It may not *be* knowing the audience, but it *feels* far more like that. This creates a sense that there is definitive evidence that they can draw on in making in making the claims about audience that they position themselves in relation to. Admittedly, this evidence is partial in a variety of ways, but as documented throughout this project, most US television industry professionals seem to have theorized this partiality in some way. If not true access to the social reality of the audience that would make them "knowable," advanced audience information takes a shape that produces beliefs in knowability. It makes industry professionals far more comfortable with the claim that they know the audience.

Much of what I have discussed in this project continues to remain up for grabs. The various questions about the impact of advanced audience information that I raised in the introduction are still in flux. Some of it has changed quite a bit since my fieldwork in 2017. For instance, the tight secrecy that characterized the early years of streaming service data has begun to fade away as Netflix in particular experiments with different strategies for disclosing its numbers—on its own terms, to be sure, but in ways that are already having implications for intraindustrial relations, as, for example, talent has started to use these selective disclosures to push for higher pay. Just a few weeks ago, the company announced that it was considering incorporating (selected) viewership metrics into the user interface, offering the supposition that showcasing the popularity of particular titles could make them even more popular. (Footnote: In some ways, this represents a regression to old industry common sense, a return to Todd Gitlin's (19823) network era observation that ratings were "numbers to produce numbers."). The texture of audience knowability continues to change.

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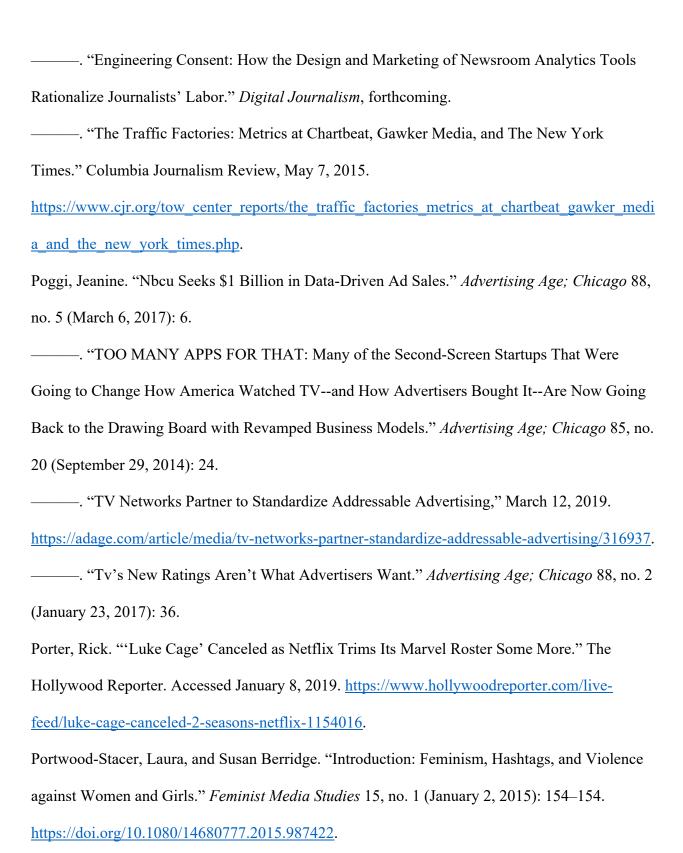
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