

Community Rankings and Affective Discipline: The Case of Fandometrics

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In 2015, the microblogging site and social network Tumblr launched Fandometrics, a project to track and rank fan engagement on the platform. The most public-facing aspect of Tumblr's Fandometrics is its weekly fandom rankings for everything from TV shows and movies to music and video games. Tumblr's (2020) "About Fandometrics" page describes the rankings as representing, "...each fandom's influence across Tumblr." In response to Fandometrics, one cultural observer predicted the rankings would result in fandoms that "duke it out for first place on the leaderboard" (Baker-Whitelaw, 2015). Tumblr is not alone in mobilis-ing metrics to quantify and leverage fan communities. For example, fan-focused wiki site Wikia (2020) calculates a daily Wiki Activity Monitor (WAM) score, a similar ranking system that Wikia calls "an indicator of the

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strength and momentum of a Fandom community." Fan fiction sites like AO3 publish fandom "Stats," and a number of fan-led fan data and fandom metrics projects also exist. In this chapter, we focus on Tumblr's Fandometrics, what it seeks to do, how it functions, and centrally, how the communities it measures are impacted by its rankings.

We conducted interviews with key fandom data/metrics workers and experts, and analysed Tumblr's Fandometrics site and other fandom metrics efforts, online user discourse, and trade and popular press. Building on work on audience measurement (Ang, 1991; Baym, 2013; Napoli, 2003) and the changing social role of metrics (Beer, 2016; Gillespie, 2016; Kennedy, 2016), we contextualise and locate Fandometrics' community rankings within larger traditions of audience and social media measurement. We demonstrate that Fandometrics encourages social jostling by online communities for relevance on the Tumblr platform, and within fandom and wider culture. By equating the strength of *communities* with their status as influencers or markets, these measurements and rankings usher fans towards subjectivities that put data and quantitative rankings at the centre of societal value and inter-community relationships. We argue that as metrics become more visible to users, some communities respond with a kind of *affective discipline*, at times exaggerating, restraining, cloaking, or reconfiguring positive and negative affect in their online engagement in line with algorithmic requirements for measurement. People tame themselves to tame the algorithms they know are at work, but which remain unknowable to them. These increasingly visible community metrics can affect users' everyday online practices and the subjectivities they engender.

We begin by locating Fandometrics relative to other forms of audience measurement. Following that, we identify and discuss the affective and social implications for the communities ranked by Tumblr's Fandometrics, including: (1) the need to be large and 'loud' to appear at all in the rankings and the affective discipline taken on by users due to Fandometrics' lack of sentiment measures; (2) that inevitably many communities will therefore feel (and effectively *be*) silenced within Fandometrics; and (3) that the rankings can represent industrial attempts at fostering competition between communities through understandings of social value based on quantification, leading to significant user anxiety about their standings. Finally, we discuss efforts by user communities to resist industrial measurement, including withdrawal from Fandometrics and/or the communities that value its rankings, and efforts to claim back their own data

through self-measurement. These efforts further illustrate the social, political, cultural, and affective impacts of industrial measurement and ranking of online communities. Further, we argue that with platforms' increasing concentration of data power, critical data studies must attend to such community-driven alternative models of data and metrics. Overall, the Fandometrics phenomenon reflects larger societal anxieties about value, relevance, and power in increasingly metrified online spaces.

FAN DATA AND FANDOM METRICS

What is today's Tumblr Fandometrics began simply as a "Year in Review" in 2013, an ambitious project thought up by Danielle Strle, the company's then Director of Community and Content. It was an exploratory attempt at representing the most reblogged tags on Tumblr. Amanda Brennan, a new hire tasked to put the content together explained that first ranking to us:

And I got a big spreadsheet and it was just every tag used on Tumblr. And we sorted it by reblogs. And I read the spreadsheet by hand and made those lists just copying and pasting and lots of color coding. And it was my first month on the job and it was just the most wild project I've ever worked on.

Brennan (who asked to be identified and is currently Head of Editorial at Tumblr) told us that after the list was published, Strle wanted to produce a more regular ranking:

Danielle was kind of like, okay, so how do we take this idea and make it something that's constantly there? Why should we wait a whole year to show off our fandoms? Because Tumblr is the home of fandom. It's where people go to really celebrate those interests.

As its name says, the weekly Fandometrics focused on fandom, in contrast to Tumblr's Year in Review tracking the most popular tags on Tumblr under a large variety of subject headings (e.g. Tumblr, DIY, Gif, etc.). Fandometrics also produces an annual Year in Review for Tumblr. Fandometrics weekly categories include Movies, TV Shows, Music, Ships, Anime & Manga, and other fandom-focused content. Each week, the results are ranked from 1–20, with marks indicating upward or downward movement on the charts from the previous week. Tumblr explicitly tells

users that the Fandometric rankings are generated by a secret algorithm, explaining the engagement elements measured but not the weights given for each. The algorithmic nature of the rankings is emphasised and often referred to in the light voice of the Tumblr copy that accompanies Fandometrics posts, with one post declaring: "Hot off the algorithms, it's Fandometrics."

Locating Community Rankings in Social Media and Audience Measurement

Fandometrics' algorithmic measurement is part of a longer history of efforts at buying and selling audiences for commercial purposes (Ang, 1991; Napoli, 2003). It can be distinguished from those efforts in terms of what it measures and its visibility to users. Tumblr describes Fandometrics as a measure of various *fandoms*' "influence." The focus on measuring a community's influence is distinct from measuring users or viewers in atomistic demographic categories, measuring networks in order to assess influential audience members, measuring affect in online chatter, and even from trending topics.

The Fandometrics rankings may in many ways most resemble social media "Trending" lists that publicly display a ranking of the most discussed topics on a platform in near real-time. And indeed, much of what we have learned about such lists (see Gillespie, 2016) is extremely applicable to understanding the social implications of the Fandometrics rankings. However, there are key differences between typical social media trending lists and the data collection, measurement, and discursive work involved in executing Tumblr's Fandometrics. Gillespie defined trending algorithms as inclusive of "the myriad ways in which platforms offer quick, calculated glimpses of what 'we' are looking at and talking about" (2016, p. 56). Fandometrics differs in that it could more accurately be said to measure the "we's" doing the talking. Trends are metrics of social activity (ibid). Fandometrics might be considered metrics of social communities. The distinction between what is trending and what Fandometrics measures can also be illustrated through example. While the Fandometrics Movies ranking may list the animated film Zootopia in the top 10, users know the high rank does not necessarily indicate the film is having broad influence or doing huge viewership numbers. Indeed, Zootopia often makes the weekly Tumblr rankings years after it was released-films on

Twitter, for example, would be most likely to trend on their release date. Rather, the film's placement on Fandometrics demonstrates the high activity of *Zootopia* superfans on Tumblr, and thus *their* influence onplatform. Tumblr's encouragement of these communities to propel themselves up the rankings cements this intent. Fandometrics is meant to measure and represent the "influence" or "strength" of particular communities that cohere around topics, rather than the topics themselves.

Fandometrics also resembles trending—and is distinct from demographic, influencer, and affect strategies for measuring audiences—in its visibility to users. This user-facing side of trending lists and similar social media metrics can obscure the tracking and trading of audiences/users that is core to algorithmic social media (Baym, 2013). Gillespie explains, "We might think of trends as a user-facing tip of an immense back-end iceberg, the enormous amount of user analytics run by platforms for their own benefit and for the benefit of advertisers and partners, the results of which users rarely see" (2016, p. 64). Fandometrics takes a step out of the murkiness of social media data collection efforts to quite candidly make it known to users that their communities are what are being measured, insinuating value to users almost solely in the act of being quantified (as opposed to typical algorithmic sells that engagement will lead to more relevant content).

Platforms navigate tensions in serving multiple constituencies (Gillespie, 2010). Indeed, Tumblr's Fandometrics, Wikia's WAM, and other attempts to measure fan activity are often touted as benefitting multiple stakeholders. Fandometrics is framed as being first and foremost for the fans. Bea Vantapool, a Senior Editorial Strategist at Tumblr (who asked to be identified), told us about the rankings, "They are for Tumblr users...We want them to feel represented, and we want them to know that we love the same things they do." Hearn argues about rankings and ratings systems, "...it is crucial to note that what is extracted from the expression of ... feeling is valuable only to those who develop, control and license the mechanisms of extraction, measurement and representation, not for the people doing the expressing" (2010, p. 423). And Fandometrics does serve stakeholders other than fans. The data collected and represented tell Tumblr about its own users and potentially, their content preferences. Indeed, Vantapool told us Fandometrics is: "For us as well...so we know what people like so we can gear our social posts toward that type of thing."

Fandometrics' placement in the Tumblr organisation may indicate who it is *most* for. Fandometrics is part of the Partnerships division of Tumblr, a marketing side of operations. In a news interview about the launch of Fandometrics, Tumblr's head of media Sima Sistani explained about the metrics' market value, "[S]mart social marketers are moving away from measuring success in terms of real-time conversations, instead focusing on building momentum through influential fan communities that serve as powerful brand advocates" (Jarvey, 2015). Thus, it becomes clear the fan communities themselves are what hold value for the platform and outside commercial actors. It is not clear all of the ways Tumblr might partner with outside media and brands through Fandometrics data and metrics, but it is certainly framed as an important data-driven opportunity that delivers particular data about highly invested and digitally active, selforganized communities. Powers notes that, "...trends course at warp speed through our social media platforms and evermore sophisticated analytics aim to interpret their signals" (2018, p. 16). Indeed, Sistani framed Tumblr's fan data as a key analytic meant to provide important cultural insights: "...our Fandometrics provides a colorful and meaningful glimpse into the zeitgeist" (Jarvey, 2015).

Fandometrics thus offers an interesting blend of the claims and implications of traditional audience measurement, big data and metrics, and social media monitoring and tracking. Relevant then to understanding the Fandometrics phenomenon is our prior knowledge about quantification: social media data and metrics, like all efforts at classification (Bowker & Star, 2000) are not natural, but are constructed (Beer, 2016; boyd & Crawford, 2012; Gitelman, 2013), they are not objective, but contain assumptions and biases (Beer, 2016; boyd & Crawford, 2012), and are skewed (Baym, 2013). Further, "because these are affective measures, they lead individuals to self-monitor, to pre-empt the systems, to play the game, to act before being measured" (Beer, 2016, p. 210). These behavioural impacts may indeed be amplified with Fandometrics rankings that say outright its measures are meant to demonstrate the value of users and their on-platform activities. Gillespie notes that when metrics are "delivered back to audiences," "There is evidence that metrics not only describe popularity, they also amplify it, a Matthew Effect with real economic consequences for the winners and losers" (2016, p. 60). Similarly, when discussing institutional drives towards increased classification and measurement, Gane argued Foucault's work on biopolitics, "remind us that neoliberalism is not simply about deregulation, privatization or governing through freedom, but also about intervention and regulation with the aim of injecting market principles of competition into all forms of social and cultural life" (2012, p. 629). Fandometrics then, provides a window into how the metrification of communities can impact those communities' everyday social and cultural lives. We turn now to a more detailed analysis of how Tumblr explains Fandometrics' secret algorithm to users, and how users interpret that algorithm and manage their own affective displays in response.

LARGE AND LOUD...WITHOUT SENTIMENT

While never providing complete information about how various forms of engagement on-platform are weighted towards the eventual public Fandometrics rankings, Tumblr's descriptions of their measurements have changed over time. Around 2018, Tumblr's description of the rankings still reads: "Tumblr's Fandometrics is the result of our efforts to compile a database of Tumblr's favorite entertainers and entertainments, and track the shifts in our users' collective affection" (emphases ours). In 2020, the sentence read: "Fandometrics is the result of our efforts to compile a database of Tumblr's most talked-about entertainers and entertainments, and track the shifts in our users' collective conversations" (emphases ours). Though only a few words had changed, the 2020 description was more accurate: "favorite" had been replaced with "most talked about" and "affection" was replaced with "conversations." Often, Tumblr describes Fandometrics as measuring different fan communities' influence across the platform. However, such influence is inevitably a quantitative metric and Tumblr's measures do not account for sentiment. More recently, Tumblr has stated this clearly. Its current description of the Fandometrics algorithm reads: "To make a long story short: We weight and normalize the number of actions to create a more accurate picture of each fandom's influence across Tumblr, without sentiment" (Tumblr, 2020).

Online audience and user research increasingly attempt to measure or account for sentiment in their data collection and measurement. Sentiment analysis is a quantitative measure of emotion that uses Natural Language Processing (NLP) to "measure" the degrees of intensity of a positive/ negative emotional binary that is imposed on social media posters' language use. The method is thus limited in a number of ways (see Hearn, 2010; Andrejevic, 2011; Arvidsson, 2012; and Kennedy, 2012, 2016 for useful accounts of sentiment analysis and critiques of its use). Despite the limitations of sentiment analysis (and its inevitable implications for social life), *not* accounting for sentiment, emotion, or affect in user

measurement has its own implications. In the case of Fandometrics, user understandings of the blunt quantitative nature of the rankings have led to disagreement about the meanings of those metrics, the value of various on-platform activities and communities, and behavioural changes meant to surface more 'correct' counts in the eventual rankings.

Indeed, Tumblr users have noted that *quantity* of engagement rather than actual enthusiasm or fannishness of particular fan objects/subjects often accounts for their high rankings on Fandometrics. Many fans believe that frequent mentions, comments, reblogs, and so on of controversial or heavily disliked content or entertainers, or even toxic or particularly competitive fan objects that encourage intra- and inter-fandom fighting, are likely propelled to the top rankings simply due to all of the negative 'engagement.' Fans especially discuss the dynamics of this in relation to traditional fan culture activities like hate-posting, antifandom, and other online engagement related to disliked fandoms and fan objects. This particularly comes into play with "ship wars." "Ships" (from the word relationships) are preferred romantic pairings between two characters or celebrities; "shippers" are those fans dedicated to a particular ship. The Ships rankings are some of the most popular and hotly contested on Fandometrics, with Tumblr (2019) stating in its 2019 annual rankings, "Shipping is Tumblr's favorite sport and this is the Big Game." A "ship war" is defined by Fanlore (2020) thus:

A ship war is a heated disagreement between two or more groups of shippers... Ship wars span a long time (often years) and involve many people in their fandom. Symptoms of a ship war include: rants, ...long-winded essays trying to prove canonicity or superiority of the preferred ship... or pointing the flaws in similar essays by rival shippers, a refusal to quiet down till well after the canon is closed, anti-ship/per posts appearing in that ship's Tumblr tag.

Some Tumblr users lament the salience the Fandometrics algorithms lend to such behaviours that they would consider negative.

Others find it humorous when such negative engagement seems to benefit their fandom or ship in the rankings. There were a number of examples of this in Tumblr conversations around the *Star Wars* 'Reylo' ship wars (Reylo is a particularly controversial pairing of the characters Rey and Kylo Ren). One user's *Star Wars* fan account posted a question they had been asked using Tumblr's Ask function: Question—as far as how tumblr Fandometrics for ships list that is going around is concerned, is it just based by how much a specific ship is used/ tagged? Because, if so, aren't antis¹ talking about reylo just helping it go up the list? That would be kind of hilarious TBH²

The fan account user posted this answer: "I'm no authority, but I'm pretty sure that the antis' incessant conversations about Reylo contribute towards its popularity on Fandometrics. This is, of course, absolutely hilarious." Indeed, users often framed those engaging in such 'anti' posting as unsavvy and uninformed. One Reylo shipper wrote a post saying "My aesthetic": followed by images of ants representing anti-Reylo posters, continuing, "tagging their hate as 'reylo' and unknowingly making the ship go higher in the fandometrics." The poster clearly found it amusing that those who disliked Reylo were likely actually responsible for Reylo ranking highly on the Fandometrics lists.

The lack of sentiment in Fandometrics' algorithmic logic seems to invite a certain type of affective discipline in fans who wish to place well in the rankings, and importantly, wish for those they dislike to rank lower. Fans often call on their communities to refrain from mentioning rival fandoms and groups so as to avoid this unintentional boost to their adversaries. However, user behaviour changes meant to avoid "negative" measurement outcomes can mean disruption of longstanding core fan activities, namely discussing and interacting with various fan objects and communities. While fandom has long been engaged in competitive practices, algorithmic rankings like Fandometrics constrain traditional modes of discourse, community, and competition and, perhaps unwittingly, may train fan communities in new cultural practices. Further, the murkiness around the affective impulses behind the rankings means various, and often competing, narratives emerge about who has (or has not) made the rankings and why. These narratives and hypotheses about Tumblr's algorithmic practices (Bucher, 2015; Maris, 2018) can lead to distrust of the metrics and platform, but just as easily to distrust and resentment of other users and user communities.

¹ "Antis" refers to Star Wars fans that are anti, or against, this romantic pairing of characters. ² TBH = To Be Honest.

WHO IS SILENCED?

It is important to ask (but impossible to fully know) who is silenced, or made to feel silenced, by the measurement logics made visible in Tumblr's Fandometrics. Certainly, numerically small or niche fan objects and communities have little chance of appearing in the rankings. The same is likely true of communities whose norms, and thus on-platform activities, do not count due to Tumblr policies or count less to Fandometrics algorithms. It is also potentially the case for those communities who do not invest energy into performing "properly" for the algorithm. Invisibility (or its threat) is key to the structure of Fandometrics itself; if your community does not add up enough to place in the top 20 spaces of a category (or top 100 for the annual Year in Review), it does not exist in Fandometrics. While there is certainly user anxiety about the threat of invisibility on Fandometrics, we also found Tumblr workers who felt constrained by the rankings' inability to represent smaller fan communities. Quantitative measures focused on the largest numbers inevitably leave out many, and despite Tumblr's claim that the rankings are for the fans, a way to have their voices heard-the Fandometrics architecture means only the loudest will be.

Latina and Docherty (2014) argue organising logics of metrification like Twitter hashtags inevitably exclude. Specifically, they note that platform user bases are often small in comparison to wider populations and thus not representative in any meaningful way; numerous potential users cannot access platforms due to lack of access to internet service, technical devices, and/or digital literacy; and many lack the platform literacy necessary to sufficiently engage in on-site discourse and community. Gillespie explains that trending algorithms, "...start with a measure of popularity, for instance how many users are favouriting a particular image or using a particular hashtag. But this entails deciding first who counts" (2016, p. 55). As with most algorithmically sorted social media, policy-prescribed human and machine content moderation (Gerrard, 2020; Gillespie, 2018; Roberts, 2019) will inevitably ensure an unknown amount of user content never surfaces on Tumblr. Those who cohere around content deemed offensive by Tumblr policies are likely to be invisible in the published metrics, while those who skirt the borderlines of such policies or even respectability on-site or in larger society also run the risk of having their communities' engagement rendered invisible.

In our interviews with those working at Tumblr (conducted before Tumblr's 2018 policy change banning adult content), one worker told us that trending topics on the platform are monitored throughout the day to "make sure that that's all kosher for public consumption," explaining that content labelled as pornography "...wouldn't even end up in our ... (Fandometrics) list. If we see something porn-related, it goes into a notsafe-for-work tag." Thus, fan objects, fan engagement, fan communities, and/or fan-created content considered porn or otherwise sexually "indecent" by Tumblr have no chance at being made visible in the rankings. As with other forms of user-generated content on social media, what we do not see, and what we do not know we are not seeing, represent highly political corporate decision-making (Gillespie, 2010). And indeed, when Tumblr banned adult content in 2018, it publicly became very clear that much of the content labelled porn or indecent was indeed not porn at all, or that such labelling and subsequent moderation especially harmed already marginalised communities (Romano, 2018).

The limits of visibility imposed by the structure of Fandometrics is not lost on those who work on it. Brennan spoke of their attempts to algorithmically give niche fandoms a chance at making the rankings:

We kind of thought about that when we were building the algorithm for it and how do we normalize a little bit? And we took that into account. So, the niche fandoms do tend to make it in if they have enough—if they're spikey enough, if you will. Like if conversation goes from 0 to 100, we try to account for that spikiness. *The Get Down* is a good example. They were in Fandometrics once and it was just like "Okay, how do we do this? How do we get there again?" ...And you'll see weird stuff because we do account for that kind of spikey—that spike in volume, things will trend and then they'll just go away because it doesn't have that sustainability.

Tumblr workers often spoke of the diverse fan communities on the platform with affection. When asked about niche interests that might not make it into the Fandometrics rankings, Vantapool noted that she wished books could become a ranked category but that they would fail to make the cut:

So, people really love books on Tumblr, and we've thought about making a books list, but there's just not enough data. People aren't talking about it enough, so we regularly would not be able to get 20 different books in that category to make a list, which is sad. I feel really bad, because that's one of the most frequent asks we get, is like "People love books. Why don't we have a books list?" And I don't want to tell them like, "You guys aren't doing

a good enough job," because *they are.* They're talking about it at the rate that they're talking about it, but it's not on the scale of movies or television, so the numbers just aren't there.

"In Depth" has been a less quantitatively determined feature of Fandometrics. In Depths are special features where Tumblr focuses in on one fandom or fan topic, discussing it in detail and displaying various associated metrics. To qualify for an In Depth, a topic must still be deemed popular enough to generate interest. And repeatedly, the constraints of metrics and of resources were cited by workers as limitations in providing visibility to more communities. Brennan explained: "[W]ith In Depth we can really explore other sorts of presentations of data because we have more time. But...we're a small strappy team and getting design support can sometimes be hard." Vantapool told us, "I love Fandometrics...but I do wish there was a way to include ...stuff that doesn't have as big of metrics...I think a lot of people would really appreciate that on a very personal level, and *I* feel that very personally."

Some optimistic accounts of the potentials of Fandometrics posit that such rankings will allow fan communities to have more influence in the production of the media they enjoy (Baker-Whitelaw, 2015). Ostensibly, fan communities could propel themselves up the rankings in order to get the attention of media production for save-our-show type campaigns and other fan-requests. While the internet and social media have long been used astutely by fan communities to do just this (Maris, 2018, 2020), the use of Fandometrics in this regard will likely be limited to certain fan communities and content-those that have the numerical strength to become visible in the rankings. Bucher argued that social media's algorithmic logics present a "threat of invisibility," the "...possibility of constantly disappearing, of not being considered important enough. In order to appear, to become visible, one needs to follow a certain platform logic..." (2018, p. 84). Indeed, Fandometrics is meant to empower fan communities, but as a tool for empowerment it can also represent a threat to those who may not wield it.

"DROWN THEM OUT!" INDUSTRY-ENCOURAGED COMPETITION AND QUANTIFICATION ANXIETY

Efforts at quantifying social life are often central to neoliberal projects. Beer explains that, "[M]etrics are used to manufacture uncertainty and to drive entrepreneurialism and self-training" (2016, p. 210). And indeed, Tumblr encourages fan communities to engage on-site in order to matter to Fandometrics and the larger platform community. In a light but taunting tone, Fandometrics sometimes frames drops in rankings as failures of user communities. While it is impossible to know how closely all fans attend to these prompts, there is evidence that many become quite invested in their communities' Fandometrics placement. Much of this investment manifests as friendly competition, but much also reveals user concerns about their standings in the rankings and associated anxieties about the size and value of their communities. Indeed, some also evaluate other communities based on quantitative data. Beer argues we should strive to understand "...how measurement is felt, how it is embodied, and how it can be seen to be experienced emotionally" (ibid: 196). How user communities engage with Tumblr's Fandometrics, and with one another, points to some of these affective implications of community measurement.

The weekly Fandometrics rankings visually highlight upward and downward movement. If something has moved up the rankings from the previous week, a small plus or minus sign next to a number indicates how many places it has risen or fallen. Often, along with the weekly rankings, Tumblr includes some bullets with commentary about each category. The text is often humorous and notes new arrivals or dramatic movements in the rankings. It sometimes seems to poke fun at the media/objects being ranked as in this 2018 post on the Celebs category: "Our Condolences to Adam Driver (No. 16), as evidently no one is talking about him." This light-hearted teasing can lead to some fans feeling the pressure themselves. One Adam Driver fan reblogged the Tumblr post, commenting: "Uh, wtf Fandometrics? Like, EVERYONE on my feed can't shut up about him!! Ok, Driver fans, not cool. Let's do something about this!" That user went on to suggest ways fans could propel Adam Driver up the rankings. Fandometrics itself often directly shifts its focus from the content in the rankings to the content supporters themselves, urging users to engage more. For example, Fandometrics posted the following with a 2018 weekly ranking in the Music category, "Beyoncé falls five spots to No. 15.

Beyhive, the queen needs your help!" Indeed, Fandometrics often places direct responsibility on users to do the work of engagement if they truly love their fan object enough. In a 2018 Ships ranking, the text read about fans' preferred ships (here called OTP, an acronym for One True Pairing), "Remember: If your OTP didn't make the list, its okay. It just means you are directly responsible and should've made more posts about them." These nudges towards particular types of engagement frame the rankings as malleable; making clear Fandometrics is not meant simply as an entertaining representation of naturally occurring on-site fan behaviour, but instead are competitive metrics as users algorithmically *perform* them.

Competition is central to many users' experiences of Fandometrics, whether they enthusiastically engage in line with Fandometrics' urgings, or begin to value their own and other communities by their quantitative data. Van Dijck describes social media's culture of connectivity as:

[...] a culture where the organization of social exchange is staked on neoliberal economic principles. Connectivity derives from a continuous pressure—both from peers and from technologies—to expand through competition and gain power through strategic alliances. Platform tactics such as the popularity principle and ranking mechanisms...are firmly rooted in an ideology that values hierarchy, competition, and a winner-takes-all mind-set. (2013, p. 21)

The competition can have very clear affective impacts on community members. Users often ridicule other communities for their standings in the rankings or express disappointment in their own. That disappointment may spill over from concerns about value on-platform to the value of their communities more generally, which becomes increasingly equated with numerical strength. For instance, one user posted their disappointment with their favourite anime's standing by equating it to the anime's fan community itself fading away, "Guys, hetalia isn't even in the last place on the fandometrics top-twenty anime of every week. The fandom is seriously dying..." Such sentiments are in line with how Beer describes the ways systems of measurement operate affectively: "They target, cajole, and provoke. They are aimed at stimulating anticipation and uncertainty-often coupling these with senses of insecurity and precarity" (2016, p. 210).

The fan described above, worried about their favourite anime, described how other fan groups engaged on Tumblr, and suggested if *Hetalia* fans behaved similarly, they might grow the fan community's numbers. Kennedy notes, "In the digital reputation economy...we see ourselves as brands, as saleable, exchangeable commodities" (2016, p. 59). That fan communities invested in the Tumblr platform and culture might take on such self-branding communally may seem quite natural. After all, fan communities tend to cohere around commercial (entertainment) products. And indeed, competition and various forms of antagonism have long been central to fan cultures (Johnson, 2007). However, online fan cultures also traditionally operate within a sharing culture or gift economy (Hellekson, 2009; Scott, 2009; Turk, 2014). Further, fan communities have often been concerned with interests considered niche or specialty; the value for many fans often *is* the perceived smallness of their community, their distance from "the mainstream" (Hills, 2002). Tumblr's Fandometrics ushers fans towards other measures of value, encouraging them to equate their community's relevance with its size, with community size defined as its algorithmically prescribed and measurable engagement on-platform.

LEAVING METRICS, RECLAIMING DATA

Fandometrics serves as a useful case study for how online communities/ audiences react and interact in the face of their own everyday experiences of public measurement and ranking. Indeed, the public and ranked nature of Fandometrics may be an example of industrial movement towards blurring or eliding the boundaries between backend and user-facing metrics such that the packaging and privileging/marginalising of audiences is increasingly explicit and normalised. Our results certainly show some of this normalisation. We witnessed many Tumblr users with affective investments in their own and other communities' (in)visibility in Fandometrics' rankings. With users increasingly aware of and attuned to algorithmic (Bucher, 2015) and industrial (Maris, 2018) imaginaries, and with their and their communities'-algorithmically assigned values increasingly displayed back to them, affective impacts are likely inescapable. However, in the face of increasingly concentrated platform data power, it is important for critical data studies to attend to resistance and other models of data and metrics presented by those very communities being tracked and measured.

Over the years that Fandometrics has existed, fans on Tumblr continue to create communities, consume content, and perform productive practices as usual. However, there are signs that some have already become frustrated with Tumblr's Fandometrics and other industrial efforts at the quantification of their communities, and especially the affective discipline seemingly required to endure their own public ranking. Some opt-out of such tracking or the online cultures that value it. Others work to reclaim their own data through more fair and transparent measurement for their own communities. These user efforts fall in line with what Van Dijck notes are characteristics of users who are also "value creators":

Network communities that collectively define popularity may be used for their evaluative labor or as deliverers of metadata, but they cannot be held captive to the attention industry. When users are no longer interested or when they feel manipulated, they may simply leave. (2013, p. 63)

And as Tumblr communities' value is made clear in Fandometrics' focus on them, many wield that power to resist commodification and/or reclaim their communities without the weight of industry-defined value assignments.

Indeed, some fans indicate very clearly that they do not want to play Tumblr's metrics "game." For example, one user posted to other members of their ship community, "Who gives a fuck about fandometrics when we basically just got canon confirmation that they're both thirsting after one another like crazy." The user celebrated a textual "win" for the ship community: seeing their favourite relationship blossom on-screen, highlighting its importance over any online rankings. Indeed, some fans similarly discuss returning to the object of their fandom for pleasure versus looking to their communities' place in Tumblr's rankings. Some users also air concerns over Fandometrics' potential amplification of fan culture practices that are seen as anti-social (like intense competition), or problematic. For example, the common fan practice of shipping real people (like actors, musicians, YouTubers, and other celebrities) versus fictional characters has increasingly come under fire in fandom as a disrespectful practice that can cause discomfort for those people whose personal/sexual lives become the focus of huge communities of online strangers. Some Tumblr users oppose Fandometrics' inclusion of real people ships in the rankings, with one user posting:

Why are 'ships' that involve real people included in fandometrics?... Those are real people being shipped, They're not cartoon characters you can shove together just cuz you think they're cute...It's a little unsettling that their love lives are being treated like that.

Thus, fan communities interrogate which fan cultures are represented by Tumblr and to what ends. These responses are in line with Gillespie's claim that users grasp and contend with algorithmic representations of their cultures: "Users will be concerned about the politics of algorithms, not in the abstract, but when they see themselves and their knowledge, culture, and community reflected back to them in particular ways, and those representations themselves become points of contention" (2016, p. 70).

Those points of contention can also become community-led projects aimed at self-representation. Fans are increasingly conducting their own data and metrics projects. One fan we spoke with runs a fandom data site as a hobby. She and other fandom data enthusiasts come together online to answer data questions that have been bothering them to "prove" things about fandom that are in question, or simply play with the numbers for fun. Her efforts, along with other fan data projects, point to displays of data and algorithmic literacy that work to self-represent through data without underlying market logics. She is very aware of the limits of quantitative measurement and crude rankings, but pointed to her efforts to include accompanying data when she displays data as rankings:

Along with my ranking I will give the actual numbers. And I'll point things out and often include a bar graph or a pie graph or whatever is the appropriate way to... visualize things so that you can also see, "Wow, after the top three, like the top three actually make up half the data all by themselves. And then there's this huge dip, and why is that?" It leads to more interesting questions as well as a better picture of things... It's just like there's a lot more that I want to know there than just the ranking.

Fan data enthusiasts don't necessarily dislike Fandometrics, but do see limits in transparency around how and why data and metrics appear as they do on the site and in other commercial measures of fandom. For example, she told us about Fandometrics:

Don't get me wrong. I respect what all of those folks are doing, and I'm not like "Wow, you have a shitty service that doesn't tell us anything real," or something. It's not like that at all. It's just like well, I don't totally know what their goals are. I can't totally see how they're generating things and I would love to know more about this, and it's not there. So, I'm going to keep on doing my own looking at things as well because it doesn't answer all of my questions. Part of this project is representation, and on one very popular "Fandom Stats" site, the site creator makes clear they work towards full transparency regarding how metrics are calculated and the potentials and limits of data for fandom. The creator notes on the site:

I don't think my fandom stats tell deep truths about fandom. They can provide some insights into some aspects of fanworks...But trying to figure out what exactly that data means, and *why* fans are producing/consuming the things they are, is beyond the scope of the numbers... I don't ascribe any moral judgments to my fandom stats—that is, I don't intend to imply any opinions about whether fans are doing good or bad things. ...The answer to almost every interesting question about fandom (or any complex system) is "It's complicated/nuanced, and the answer depends on the details of how you ask the question." I try to explain my starting assumptions and to map out some of the complexity of the data, where I can. There's always more to the story, though...Data is good food for thought and discussion fodder, but can't tell us what to do. (Destination: Toast!, 2020)

Such understandings of transparency and ethical data use represent alternative uses of quantification being embraced by some fan communities. These data projects are not always responses to specific commercial metrics projects (like Fandometrics), but do represent some communities' understandings of, and experiences with, the affective and larger sociopolitical impacts of being publicly measured and ranked. Indeed, the algorithmic literacy of these and other fan community responses to Tumblr's user-facing rankings demonstrate how some communities are already struggling to rebalance social relations in the face of their outright valuation and commodification in their "home" platform spaces. And as some of these communities have shown, other models are possible.

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