THE NECESSARY REFORMATION OF ATTENTION-DRIVEN SOCIAL MEDIA PLATFORMS

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Data: Past, Present, Future

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Introduction

The spread of disinformation has perpetually co-existed with the spread of truthful information. As publishers and artibers of information have communicated throughout time, so too have they spread disinformation. Although, in the past four years, there has been a notable public outcry against disinformation campaigns, specifically fake news campaigns, it is not the disinformation itself that should be uniquely criticized, but, rather, the platforms on which the disinformation has been communicated. In other words, the current crisis of fake news is not due to the recent birth of fake news, but due to the contemporary construction of online media outlets, specifically social media outlets, that uphold and disperse fake news.

The most frequented and influential online social media outlets are structured around an attention-based economy. Within an attention-based economy, increased attention translates to increased profits and power. Social media platforms, like Facebook and Twitter, have organized their services to prioritize the most attention-grabbing and clickable content. Within this click-driven model, factual information is held to the same standards as disinformation; communication platforms do not discern content based on truth, but, algorithmically promote content based on potential virality.

To form viral content, social media platforms collect personal data and, also, sell personal data. Personal data allows content-creators to produce aggressively targeted and, therefore, maximally-clickable, information and disinformation campaigns. Given the breadth and granularity of big data sets, social media platforms have evolved a uniquely destructive attention-content feedback loop. As content-creators retrieve vast amounts of granular personal data, they produce highly targeted content that, ideally, becomes viral. Again, on social media

platforms, truthful information and disinformation bear the same weight; it is the virality of content that determines its success.

Additionally, on attention-driven social media platforms, there are few barriers and virtually no cost to publishing information. Within the click-based structure, information is often sensationalized to garner attention in a crowded market for attention. Sensationalized information generates clicks, perpetuating the attention-content feedback loop. Consequently, social media platforms become merchants of shock: algorithms downgrade non-sensational information, while the most shocking memes spread virally. Ultimately, our communication crisis is not specifically a crisis of disinformation, but instead, a crisis of ethic-less structured monetization strategies of social media platforms.

The Attention Economy

In his 1997 essay, Michael Goldhaber presciently presents the attention-economy of a technologically social future. Goldhaber projects that the abundance of information in cyberspace, the "information glut,"[1] will result in a "scarcity of attention."[2] An overwhelming of endlessly-replicating information will, in turn, demand from a limited pool of attention. In an effort to seek attention, Goldhaber believes that information must become ceaselessly "original." [3] In terms of media philosopher Marshall McLuhan, the medium of the message will shape the media; the vast structure of "cyberspace" will force the originality of content.[4] Through this race for originality, Goldhaber envisions the diffusion of socially cohesive organizations into the rise

[1] Michael H. Goldhaber, "The Attention Economy and the Net," First Monday 2, no. 4 (1997): 2, doi:10.5210/fm.v2i4.519.
[2] Goldhaber, 3.
[3] Goldhaber, 6.
[4] Marshall McLuhan, *Understanding Media: The Extensions of Man* (Georgetown, 1964), 21.

of the individual.[5] Within a non-physical, online platform, Goldhaber believes that "all organizations will be basically temporary" and, instead, virtual social gatherings will form around various cults of individuals.[6] In essence, Goldhaber claims that more collectively-based organizational boundaries will dissolve and, instead, masses will gather around a single attention-worthy, powerful individual.

Goldhaber's analysis of the attention-economy reveals the foundational flaws of socially-abundant social media systems. As companies, like Facebook, monetize through attention-drawing content,[7] rather than fact-based content, shock-value overbears content-quality. An attention-driven content model, therefore, devalues truth and corrodes information platforms. Renée DiResta summarizes that "disinformation itself is a problem enabled by a confluence of systemic flaws in the information ecosystem."[8] The "information ecosystem," more specifically social media platforms, seek, foster, and proliferate extremely-viral, often untrue, content.

The Collection of Personal Data

In an effort to increase individuals' attention to content, social media platforms collect personal data. Rana Foroohar specifies that "highly-targeted advertising businesses... make nearly all their money selling as much specific information about individual users as possible."[9] If the attention-driven business model profits from individual clicks, then information becomes

[5] Goldhaber, 5.
[6] Goldhaber, 5.
[7] Rana Foroohar, "Privacy Is a Competitive Advantage," Financial Times, October 15, 2017, , accessed May 1, 2019, https://www.ft.com/content/0247b8f2-b012-11e7-beba-5521c713abf4.
[8] Renée DiResta, "We've Diagnosed the Disinformation Problem. Now, What's the Prescription?" Defusing Disinfo, January 31, 2019, , accessed May 1, 2019, https://defusingdis.info/2019/01/23/weve-diagnosed-the-disinformation-problem-now-whats-the-prescription/.
[9] Foroohar.

more valuable the more clickable it is. Individual information, as Foroohar suggests, subsequently, becomes exceptionally lucrative as it maximizes clicks. Within an attention economy, personal data is "the most valuable resource for nearly every business"[10] — particularly granular personal data.

Although personal data has always been used in advertising, it is, as Hanna Wallach explains, the granularity of the data that makes it particularly effective and invasive. According to Wallach, computational data sets are a "social phenomenon"[11] because they drill into vast personal data sets and retrieve information on the individual level — at the "granularity of individual people and their activities."[12] Wallach argues that, although this "granular" level may seem wholly intrusive and "uncomfortable," it is the level that social scientists and have always operated on.[13] Similarly, advertisers have always catered to the granular level; the more information an advertiser has on an individual, the better an advertiser can sell to them. Social media platforms, however, depart from previous implementations of granular data because they collect granular data on a seemingly-infinite scale within big data sets.

Along the lines of Wallach, Zeynep Tufekci notes the historical perpetuation of big data, but the recent development of granularity within big data sets. Tufekci explains that the "historical trends [regarding big data]... predate the spread of the Internet."[14] Tufekci continues that, in 1988, for example, there was a "significant effort underway to use big data... [in the]

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[10] Foroohar.
[11] Hanna Wallach, "Big Data, Machine Learning, and the Social Sciences," Medium, December 19, 2014, , accessed May 1, 2019, https://medium.com/@hannawallach/big-data-machine-learning-and-the-social-sciences-927a8e20460d.
[12] Wallach.
[13] Wallach.
[14] Zeynep Tufekci, "Engineering the Public: Big Data, Surveillance and Computational Politics," First Monday 19, no. 7 (2014): 2, doi:10.5210/fm.v19i7.4901.

marketing techniques for politics."[15] Tufekci, nevertheless, echoes Wallach when she writes, that modern computational data sets "provide significantly more individualized profiling and modeling [in] much greater data depth."[16] Reiterating Wallach, Tufekci purports that the use and application of large data sets are not particularly revolutionary; the true revolution is the individualized nature of the data sets. Tufekci proposes that this particularly individualized data will allow "leaders... to 'engineer their consent' more effectively."[17] Individualized data present leaders and, more generally any content-creators, with the opportunity to target specific individuals, not to generally broadcast their message to indiscriminate masses.

A Low Barrier of Distribution

As social media structures allow for precisely focused information campaigns, so too do they create environments in which these information campaigns can inexpensively and expansively proliferate. Historically, content dispersion was structurally limited to publishers. Although there was competition amongst publishers,[18] have been no structures as pervasive and as instantaneous as the internet. The internet provides any content-creator immediate access to innumerable audiences. On sites, like Facebook, there is neither a gatekeeper nor a discerning publisher between content-creator and content-consumer.

In terms of news specifically, increases in "news" volume have traditionally led to competition for viewership and, subsequently, reflection upon truth. In the 1920s and 1930s, for example, the production of tabloid journalism, a publication of "sensationalized... stories,"

[15] Tufekci, 2.
[16] Tufekci, 2.
[17] Tufekci, 3.
[18] Jennifer Kavanagh and Michael D. Rich, Truth Decay: An Initial Exploration of the Diminishing Role of Facts and Analysis in American Public Life (Santa Monica, CA: Rand Corporation, 2018), 55.

caused "more-established newspapers... [to] differentiate themselves as 'real journalism.'"[19] As these "more-established newspapers" attempted to define themselves and to maintain subscribers, they "shifted towards offering a higher concentration of nonnews content."[20] Within this shift, "often at the expense of facts," society feared the decay of truth.[21]

Similarly, in a modern context, contemporary news sources are increasingly thrust into the endlessly expansive and competitive media environment of the internet age. The internet forces "conventional media outlets... to compete with newer web-based publications."[22] In order to survive, established news outlets must enter the attention-based digital ecosystem. By entering the digital ecosystem, established news outlets, like their 1900s predecessors, have gravitated towards "sensationalistic tabloidized stories."[23] The tabloid format resurfaces as an "attempt to attract maximum audiences for as much time as possible."[24] The tabloid format, therefore, degrades news producers' content quality.

The Risks of Sensationalization

The tabloidization of news and the greater sensationalization of content challenges the future of trustworthy and substantial communication through social media. If content-creators pander to an attention economy, they risk producing highly viral content in favor of high quality content. Content-creators must find successful monetization strategies that circumvent the spectacularization circus and maintain high quality content.

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[19] Kavanagh and Rich, 55.
[20] Kavanagh and Rich, 55.
[21] Kavanagh and Rich, 55.
[22] Kavanagh and Rich, 55.
[23] Stuart Allan, ed., The Routledge Companion to News and Journalism (London: Routledge, 2012), 162.
[24] Allan, 162.

Various media publishers have attempted to avoid the spectacularization circus through paid subscription or fee-based online models. Through subscription models in particular, many media sources attempt to uphold high quality content through a guaranteed consumer base. According to a 2002 study by the Online Publishers Association, consumers are willing to purchase content that they deem to be of "superior quality and/or to meet more emotional/passionate needs."[25] As Cheng Lu Wang, a marketing researcher, discerns, users will pay for content that is both "proprietary and differentiated."[26] Through reliable revenue streams, publishers can more effectively maintain their content quality while, simultaneously, escaping the degradation of the spectacularization cycle.

Although fee-based models ensure the success of exclusive publications, they do not repair the overall attention-based economic structure of social media. If sources increasingly out-sensationalize one another, they will destroy both their reputation and their product. As measured in a recent Gallup poll, between 2003 and 2016, the "percentage of Americans who said they have a great deal or a fair amount of trust in the media fell from 54% to 32%."[27] The greatest media transformation during this period was the transition from offline to online platforms.

Repairing the System

[25] Tobi Elkin, "Seeking Payoff on the Web," Advertising Age 73, no. 40 (October 7, 2002): , https://search.proquest.com/docview/208360960?accountid=10226.
[26] Cheng Lu Wang, "Subscription to Fee-based Online Services: What Makes Consumer Pay for Online Content?" Journal of Electronic Commerce Research 6, no. 4 (2005): 306, accessed May 1, 2019, http://web.csulb.edu/journals/jecr/issues/20054/paper4.pdf.
[27] Knight Foundation, "Indicators of News Media Trust," Knight Foundation, , accessed May 1, 2019, https://www.knightfoundation.org/reports/indicators-of-news-media-trust.

The foundation of a successful democracy depends upon the functioning of a free and unadulterated press. Although information remains unrestricted in terms of regulation, it grows increasingly restricted within toxic information pipelines; notably, within social medias' attention-driven platforms. Circling back to the early 1900s crisis of tabloidization, "a revival of fact-based and investigative journalism helped reduce the blurring of the line between opinion and fact and championed the primacy of facts over disinformation and opinion."[28] This revival was significantly triggered by "changes in government policy to increase accountability and transparency helped restore trust in government as an information provider."[29]

Alongside many others, Renée DiResta argues that the contemporary state of media requires government regulation. DiResta specifically cites the Communications Decency Act (CDA), a regulation which "governs platforms' responsibility for the content they host."[30] DiResta argues that a shift in responsibility will "eliminat[e] immunity for platforms that leave up content that threatens or intentionally incites physical violence."[31] Through the CDA, social media platforms must abandon their declared role of neutral brokers and must assume the role of responsible mediators.

Although this shift of responsibility appears to be a major transition in the role of social media platforms, these platforms' attention economies already position them as publishers. The algorithms that prioritize clickable information serve as forms of censorship. Acts, like the CDA, are only revolutionary in that they hold social media platforms, to some extent, accountable for

[28] Kavanagh and Rich, 73.
[29] Kavanagh and Rich, 73.
[30] DiResta.
[31] DiResta.

their algorithms. Nevertheless, even though social media platforms may, eventually, be held accountable for threatening and violent content, the problem of sensationalization remains.

In an alternative approach to regulation, DiResta suggests the Honest Ads Act. Unlike the CDA, the Honest Ads Act regulates content-creators, specifically political content-creators, through social media platforms. According to DiResta, the Honest Ads Act is a "bipartisan bill [that] proposes regulating political advertising on the Internet."[32] The bill reflects government regulation, through the Federal Election Commission, on other communication platforms.[33] Through the bill, internet platforms, including social media giants, "would have to disclose how much specific political ads on their platform cost; the number of ad views; how the ad was targeted; and the contact information of the buyer."[34] Although the bill is not entirely revolutionary, it at least offers a more transparent interaction between the content-creator and the audience. Through this transparency, political content-creators may be held more accountable for the manipulation and fabrication of information.

Conclusion

Overall, social media platforms implement algorithms that perpetuate an attention economy; the attention-driven algorithms, thus, prioritize sensationalized content over true content. Although disinformation itself is harmful, disinformation becomes uniquely harmful when contextualized within attention-driven social media platforms. In order to maximize content attention, social media platforms collect and harness personal data to channel increasingly clickable content to users. The channeling of this viral content effectively drives an

[32] DiResta.
[33] DiResta.
[34] DiResta.

attention-content feedback loop in which viral information trumps truthful information. Furthermore, the low barrier to information publication on social media platforms allows for any content-creator to easily and inexpensively participate in this attention-content loop. As social media platforms remain unregulated, both internally and externally, they erode society's capacity to efficiently and effectively communicate.

At the conclusion of an interview of the AI Now Institute's founders, Kate Crawford and Meredith Whittaker, an audience member asked a question along the lines of, "how can we deal with the tension between the regulation and the innovation of AI?"[35] The panelists collectively replied that we will only have safe and functional AI when we design it with ethics in mind. As Crawford states, "we actually will only have AI that is worthy of the name when it is really designed in harmony with the ways in which we want to live."[36]

Although Whittaker and Crawford specifically speak to AI, their message holds true in the development of all technology and, in particular, social media technology. Social media platforms must be designed with ethical frameworks in mind. If social media engineers seek growth while discarding ethics, they will destroy their own systems and do harm to overall society. Social media platforms hold the great potential of informing and connecting unprecedented masses of individuals. If we, as a human race, hope to sustain our technological progress, specifically our progress within social communication systems, we must monitor and reform the developments and implementations of these communication systems.

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[35] Eric Johnson, "How Will AI Change Your Life? AI Now Institute Founders Kate Crawford and Meredith Whittaker Explain.," Vox, April 08, 2019, , accessed May 1, 2019, https://www.vox.com/podcasts/2019/4/8/18299736/artificial-intelligence-ai-meredith-whittaker-kate-crawford-kara-swisher-decode-podcast-interview.

[36] Johnson.

Bibliography

Allan, Stuart, ed. *The Routledge Companion to News and Journalism*. London: Routledge, 2012.

DiResta, Renée. "We've Diagnosed the Disinformation Problem. Now, What's the Prescription?" Defusing Disinfo. January 31, 2019. Accessed May 1, 2019. https://defusingdis.info/2019/01/23/weve-diagnosed-the-disinformation-problem-now-whats-the-prescription/.

Elkin, Tobi. "Seeking Payoff on the Web." *Advertising Age*73, no. 40 (October 7, 2002): 4-41. https://search.proquest.com/docview/208360960?accountid=10226.

Foroohar, Rana. "Privacy Is a Competitive Advantage." Financial Times. October 15, 2017. Accessed May 1, 2019. https://www.ft.com/content/0247b8f2-b012-11e7-beba-5521c713abf4.

Goldhaber, Michael H. "The Attention Economy and the Net." *First Monday*2, no. 4 (1997). doi:10.5210/fm.v2i4.519.

Johnson, Eric. "How Will AI Change Your Life? AI Now Institute Founders Kate Crawford and Meredith Whittaker Explain." Vox. April 08, 2019. Accessed May 1, 2019. https://www.vox.com/podcasts/2019/4/8/18299736/artificial-intelligence-ai-meredith-whittaker-kate-crawford-kara-swisher-decode-podcast-interview.

Kavanagh, Jennifer, and Michael D. Rich. *Truth Decay: An Initial Exploration of the Diminishing Role of Facts and Analysis in American Public Life*. Santa Monica, CA: Rand Corporation, 2018.

Knight Foundation. "Indicators of News Media Trust." Knight Foundation. Accessed May 1, 2019. https://www.knightfoundation.org/reports/indicators-of-news-media-trust.

McLuhan, Marshall. *Understanding Media: The Extensions of Man*. Georgetown, 1964.

Tufekci, Zeynep. "Engineering the Public: Big Data, Surveillance and Computational Politics." *First Monday*19, no. 7 (2014). doi:10.5210/fm.v19i7.4901.

Wallach, Hanna. "Big Data, Machine Learning, and the Social Sciences." Medium. December 19, 2014. Accessed May 1, 2019. https://medium.com/@hannawallach/big-data-machine-learning-and-the-social-sciences-927a8e20460d.

Wang, Cheng Lu. "Subscription to Fee-based Online Services: What Makes Consumer Pay for Online Content?" *Journal of Electronic Commerce Research*6, no. 4 (2005): 304. Accessed May 1, 2019. http://web.csulb.edu/journals/jecr/issues/20054/paper4.pdf.