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Glitched Rhetorics: Online Deliberation of New Technology

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GLITCHED RHETORICS: ONLINE DELIBERATION OF NEW TECHNOLOGY

by

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The small Nebraska panhandle community where I've lived in recent years takes its name from the nearby Chadron Creek. According to a local novelist who found the place decades before I did, the few folks of Chadron privilege "codes of coherency" often in conflict with the "impersonal machine" driving life in big cities.[1] I'm indebted to these neighbors who welcomed me and became friends, including faculty, staff, and students at Chadron State College. I am particularly appreciative of the kindness, generosity, and guidance of my communication faculty colleagues at CSC—Dr. Shaunda French-Collins, Dr. Kathleen Kirsch, and Mr. Mike Kennedy—and School of Liberal Arts Dean Jim Margetts. I hope to continue teaching and learning here for some time.

The very different years I spent studying in Memphis, atop a bluff on the Mississippi River, had an ineffable impact on my understanding of technology, politics, rhetoric, and media. I appreciate the support of University of Memphis communication faculty and staff, as well as others from across the institution. Drs. Amanda Nell Edgar and Scott Sundvall taught me, gave invaluable advice about the academic job market, and wrote letters on my behalf. Dr. Marina Levina challenged me in a way I appreciate more and more as time passes since I attended her seminars alongside friends like Dr. Kyle Christensen. Across the years, Dr. Tony de Velasco continued to believe in the promise of my project even at moments when I had lost faith in it and myself. From what I've discovered reading the acknowledgements of dissertations converted to books, this is an indicator of a great graduate advisor. I'm thankful to have such a mentor. Though I only

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[1] Poe Ballantine, "We Are All From Somewhere Else (Or How I Ended Up in Chadron, Nebraska of all Places)," *Between Coasts*, May 2019, https://betweencoasts.org/we-are-all-from-somewhere-else/.

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stayed for a bit, I will continue to appreciate my time learning and living in the city of Memphis.

"Sometimes I live in the country. Sometimes I live in the town. Sometimes I have a great notion, to jump in the river and drown," sings Lead Belly in the folk song "Goodnight, Irene." Even as I recognize my amazing fortune, during much of my time in this Ph.D. program I haven't been well. I can't say if I've been unproductive in my writing because I'm unsuited for this path (i.e., lacking the necessary intelligence and/or discipline) or suffering an undiagnosed and untreated mental illness. In any case, comfort comes most often from conversation and time spent with family in North Carolina, Puerto Rico, and (more frequently) WhatsApp. Without the love and encouragement of my parents—Lisa and Dennis Smith, and Ken Hughes—and my siblings—Brian Smith and Dr. Stephen Hughes—I could not have written this dissertation or achieved much at all. If not for them, I would have jumped into a river long ago.

Abstract

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This dissertation examines public deliberation on the social media site reddit regarding two controversial technologies: Alexa and Bitcoin. Such vernacular deliberation of prominent new technologies is widespread online and increasingly significant—with Alexa and Bitcoin generating numerous controversies throughout the 2010s & early 2020s—yet understudied by rhetoric and media scholars. Arguments for and against the technologies consistently emerge, and so I ask: *What are the terms, patterns, and logics in the binarized reddit deliberations of emergent technology?* There is also an alternative rhetorical practice of those conflicted and ambivalent, yet not absent from the deliberations. I name it *glitching*, a paleologism used to describe a digital version of a transhistorical and transgressive anti-idealism (i.e., kynicism). My second question is*: In what way do redditors* glitch *the deliberation of emergent technology?* Rhetorical-archaeological analysis and digital rhetorical ethnography are the methods I utilize to answer the first and second questions, respectively. Arguments for Alexa employ terms "connect," "work," and "convenience," in patterns emphasizing expertise and rationality, toward a logic of technological progress. "Listening" and "labor" are the terms which appear throughout anti-Alexa posts and comments, in patterns resembling investigative journalism, to advance a logic of economic justice. Pro-Bitcoin arguments employ terms "buy" and "celebration," in a pattern resembling that of speculative finance, undergirding a logic of prosperity technology. "Privacy" and "scam" are the terms which appear throughout anti-Bitcoin posts and comments, in a pattern of technical expertise which supports logics of technological and financial skepticism. *Glitched* rhetorics are

ambivalent and irreverent interruptions in the binary oscillation of vernacular deliberation about technology which frequently appear in online fora, and closely resemble the kynicism of Diogenes of Sinope. The *glitched* rhetorics about Alexa and Bitcoin diverge in extremeness, but share embrace of risk and use of sexual vulgarity to challenge customs and interrupt sober deliberations which otherwise lead to the synthesis of managed decline. *Glitched* rhetorics are not the collective action necessary for systemic change in the matter of society's relationship to technology, but as a kynical signal not unlike the barking of a dog they persistently reveal that such action is necessary.

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Chapter 1 – Introduction

A Smart, Shitty Refrigerator

While covering the 2019 Consumer Electronics Show (CES), *The Verge* reporter

Shannon Liao reported on the "smart" functionality of a new internet-connected

refrigerator announced by Samsung at the event.[1] The bite-size article, typical of various

technology news sites' rapid coverage of announcements at such events, was tweeted out

by *The Verge*'s Twitter account (@verge) nearly a week later and emphasized one

particular feature of the appliance with the headline "Samsung's new fridge will ping

your phone if you leave the door open."[2] So goes the mutually-beneficial process of a

trade show, where companies and press outlets work with relatively little friction towards

the dissemination of information about new or updated products from a presentation

and/or booth, to an article on a popular news site which is subsequently linked across

social media.

At this point, much rhetorical work has been done by Samsung and *The Verge*

towards their separate goals of building interest in a product and increasing advertising

revenue.[3] For example, we might analyze to the name and descriptive terms applied by

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[1] Shannon Liao, "Samsung's new fridge will ping your phone if you leave the door open," *The Verge*, January 7, 2019, https://www.theverge.com/2019/1/7/18169342/samsung-family-hub-4-fridge-washer-bixby-ces-2019.

[2] @verge, "Samsung's new fridge will ping your phone if you leave the door open https://theverge.com/2019/1/7/18169342/samsung-family-hub-4-fridge-washer-bixby-ces-2019?utm_campaign=theverge&utm_content=chorus&utm_medium=social&utm_source=twitter", Twitter, tweet, January 13, 2019, 9:56 AM, https://twitter.com/verge/status/1084494287415455745.

[3] Here it should be noted that rhetoric has been defined in a countless number of ways since antiquity, perhaps most commonly today as mere bluster. I adhere to Donald C. Bryant's definition of rhetoric as "*the rationale of informative and suasory discourse*," (404) with "*the function of adjusting ideas to people and of people to ideas*" (413) ; Donald C. Bryant, "Rhetoric: Its functions and its scope*,*" *Quarterly Journal of Speech* 39, no. 4 (1953): 401-424, https://doi.org/10.1080/00335635309381908.

Samsung to their refrigerator ("Family Hub 2019," "smart," "enhanced," "AI," "IoT,"

"intelligent," "efficient") and how these are employed with or without resistance by *The*

Verge in an article that is ostensibly distinct from the company's own announcements and

demonstrations.[4] However, one of the most interesting aspects of this process's move

online is the increased visibility of various responses from different publics, a

deliberation concerned with, in this case, adding functions enabled by internet-

connectivity to an appliance that has long been standard in U.S. homes, as well as the

rhetorical packaging of those additions. In other words, the "*reticulate public sphere* in

which strangers develop and express public opinions by engaging one another through

vernacular rhetoric" described by Gerard A. Hauser, and in this instance about an

upgraded product, is no longer limited by physical proximity and is recorded, if partially

and imperfectly.[5] Notably, the Twitter account Internet of Shit (@internetofshit) quote

tweeted *The Verge*'s earlier tweet, allowing Internet of Shit to share the headline, link,

and a photo of the refrigerator from the article, in addition to posing a question of their

own about the phone-pinging function: "why the fuck doesn't it just close the door itself

if it's so smart [sic]" (Figure 1).[6]

Internet of Shit's tweet eventually reached over 105,000 likes and 38,000 retweets

by users on the platform, an immense amount compared to that received by *The Verge*'s

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[4] Samsung, "Family Hub 2019: A Major Makeover that Keeps Family Moments Alive," Samsung Newsroom, Samsung, January 10, 2019, https://news.samsung.com/global/family-hub-2019-a-major-makeover-that-keeps-family-moments-alive.

[5] Gerard A. Hauser, *Vernacular Voices: The Rhetoric of Publics and Public Spheres* (Columbia, SC: University of South Carolina Press, 1999), 12.

[6] @internetofshit, "why the fuck doesn't it just close the door itself if it's so smart", Twitter, tweet, January 13, 2019, 2:42 PM, https://twitter.com/internetofshit/status/1084566331893133314.

tweet (949 likes and 246 retweets), or two earlier tweets from Samsung (@Samsung) about the refrigerator (combined reaching 150 likes and 40 retweets).[7] This was followed a day later with another Internet of Shit tweet (over 4,600 likes and 424 retweets) which advanced the public deliberation further by replying to a counterpoint: "'but wait that would cost so much because you need a motor and stuff' let me tell you about the cost of building an app and running servers: lol."[8]

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[7] @internetofshit, "why the fuck doesn't it just close the door itself if it's so smart", https://twitter.com/internetofshit/status/1084566331893133314 . ; @verge, "Samsung's new fridge will ping your phone if you leave the door open", https://twitter.com/verge/status/1084494287415455745 . ; @Samsung, "New #FamilyHub refrigerator takes connected living to the next level with enhanced #AI and #IoT capabilities to free up more time to do the things you want #SamsungCES2019", Twitter, tweet, January 7, 2019, 3:40 PM, https://twitter.com/Samsung/status/1082406525271007232 . ; @Samsung, "The new #FamilyHub refrigerator with enhanced #AI and #IoT capabilities is all about giving over more time to the family, offering them a communal, emotional, and cultural experience in the kitchen", Twitter, tweet, January 10, 2019, 7:00 AM, https://twitter.com/Samsung/status/1083362830017953793.

[8] @internetofshit, "'but wait that would cost so much because you need a motor and stuff' let me tell you about the cost of building an app and running servers: lol", Twitter, tweet, January 14, 2019, 4:48 AM, https://twitter.com/internetofshit/status/1084779192611471360.

Figure 1: Internet of Shit's tweets[9]

These numbers represent the unequal circulation of three perspectives and corresponding rhetorical approaches: (1) Samsung as the product's creator and marketer, employing what might be interpreted as either a "rhetoric of the technological sublime" or a "technoliberal rhetoric," (2) *The Verge* as a quasi-advertiser transmitting much of Samsung's language in what might purport to be merely a quick report of facts about a product, and (3) Internet of Shit as a satirical Twitter account that employs a resonant,

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[9] @internetofshit, "why the fuck doesn't it just close the door itself if it's so smart", https://twitter.com/internetofshit/status/1084566331893133314.

vernacular description of the internet of things (IoT).[10] Put differently, the third largest

technology company in the world as measured by 2021 revenue and part of an expansive

South Korean conglomerate, as well as a popular news site within the Vox Media

company, saw rhetorics towards the goals of clicks, buzz, and purchases (institutionalized

on the platform by the presence of a blue checkmark on each of their tweets) disregarded

by publics eager for smart deliberation of what it means to be smart.[11] Internet of Shit's

tweets, authored anonymously but with a printed circuit board, components, and attached

antenna for a profile picture, interrogate blunt material realities of consumer technology

(e.g. failure due to loss of Wi-Fi or internet connection, the end of device support,

surrendering personal data, and more) and corresponding-yet-juxtaposed, quixotic

descriptions (e.g. Samsung's tweet: "The new #FamilyHub refrigerator with enhanced

#AI and #IoT capabilities is all about giving over more time to the family, offering them

a communal, emotional, and cultural experience in the kitchen").[12]

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[10] Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York, NY: Oxford University Press, 2000); Damien Smith Pfister, "The Terms of Technoliberalism," in *Theorizing Digital Rhetoric*, eds. Aaron Hess and Amber Davisson (New York, NY: Routledge, 2018), 32-42; Damien Smith Pfister, "Technoliberal rhetoric, civic attention, and common sensation in Sergey Brin's 'Why Google Glass?'" *Quarterly Journal of Speech* 105, no. 2 (2019): 182-203, https://doi.org/10.1080/00335630.2019.1595103; Hauser, *Vernacular Voices*.

[11] Fortune, "Fortune Global 500 2022," *Fortune*, accessed August 1, 2022, http://fortune.com/global500/list/filtered?sector=Technology ; The Economist, "Asia's new model company," *The Economist*, October 1, 2011, https://www.economist.com/leaders/2011/10/01/asias-new-model-company; Chico Harlan, "In South Korea, the Republic of Samsung," *The Seattle Times*, December 12, 2012, https://www.seattletimes.com/business/in-south-korea-the-republic-of-samsung/; Vox Media, "Vox Media – The Modern Media Company," *Vox Media,* accessed August 1, 2022, https://corp.voxmedia.com/.

[12] Internet of Shit, "The Internet of Things has a dirty little secret: it's not really yours," *The Verge,* July 12, 2016, https://www.theverge.com/circuitbreaker/2016/7/12/12159766/internet-of-things-iot-internet-of-shit-twitter; Paul Miller, "IoT with Internet of Shit," May 20, 2020, in *Cyberdeck Users Weekly*, podcast, 45:05, https://anchor.fm/futurepaul/episodes/IoT-with-Internet-of-Shit-eeamen; In this podcast episode, Internet of Shit discusses the usefulness of a pseudonym (around 3:25); @Samsung, "The new #FamilyHub refrigerator with enhanced #AI and #IoT capabilities is all about giving over more time to the family, offering them a communal, emotional, and cultural experience in the kitchen", https://twitter.com/Samsung/status/1083362830017953793.

In this way, social media now serve as deliberative sphericules that are simultaneously private and public, here specifically concerned with the advances of technological goods and controlled by platform capitalists but also focused on the societal impact of those goods and their users.[13] Broadly, this development finds journalists conducting much of their work in bubbles on Twitter, communication scholars building careers off intricate knowledge of digital cultures thought largely unimportant prior to Gamergate and the 2016 U.S. presidential election, and an accelerated spread of algorithmically selected misinformation and disinformation among other things, but also an inextricable opportunity for civic action.[14] In some sense, Internet of Shit has been legitimized by a following of over 460,000 Twitter users accumulated since the account's creation in July of 2015 (including eminent journalists, academics, and industry figures such as @elonmusk), even writing a few articles on IoT for *The Verge* in past years.[15] Nevertheless, Internet of Shit continues as an ombudsman-like account, utilizing a

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[13] Jürgen Habermas, *The Structural Transformation of the Public Sphere,* trans. Thomas Burger & Frederick Lawrence (Cambridge, MA: MIT Press, 1989); Zizi Papacharissi, "The virtual sphere: The internet as a public sphere," *New Media & Society* 4*, no. 1 (2002): 9-27, https://doi.org/10.1177/14614440222226244; Damien Smith Pfister, "Public Sphere(s), Publics, and Counterpublics," in *Oxford Research Encyclopedia of Communication*, ed. Jon Nussbaum (Oxford, UK: Oxford University Press, 2018); Slavko Splichal, "Publicness–Privateness: The Liquefaction of 'The Great Dichotomy'," *Javnost—The Public* 25, no. 1-2 (2018): 1-10, https://doi.org/10.1080/13183222.2018.1424004; Todd Gitlin, "Public Sphere or Public Sphericules?" in *Media, Ritual and Identity,* eds. James Curran and Tamar Liebes, 175-202 (London, UK: Routledge, 1998).

[14] Nikki Usher and Yee Man Margaret Ng, "Sharing Knowledge and 'Microbubbles': Epistemic Communities and Insularity in US Political Journalism," *Social Media + Society* 6, no. 2 (2020): 1-13, https://doi.org/10.1177/2056305120926639; Kyle Wagner, "The Future Of The Culture Wars Is Here, And It's Gamergate," *Deadspin*, October 14, 2014, https://deadspin.com/the-future-of-the-culture-wars-is-here-and-its-gamerga-1646145844; Charlie Warzel, "How an Online Mob Created a Playbook for a Culture War," *The New York Times*, August 15, 2019, https://www.nytimes.com/interactive/2019/08/15/opinion/what-is-gamergate.html.

[15] Internet of Shit, "The Internet of Things has a dirty little secret"; Internet of Shit, "Even Apple can't make the Internet of Things tolerable," *The Verge,* May 6, 2017, https://www.theverge.com/circuitbreaker/2017/5/6/15566630/homekit-internet-of-shit; Internet of Shit, "Apple has proven me wrong about HomeKit," *The Verge,* August 3, 2017, https://www.theverge.com/2017/8/3/16083996/internet-of-shit-wrong-about-homekit.

privately-owned method of communication towards advocating for public interests.

"Toasters but with subscription model," the account tweets, parodying a trend towards

maximizing revenue through upfront, recurring, and data payments, an alienation of the

consumer from the product.[16] These and most other tweets by the account, jocular and

laden with expletives, reveal an author both enamored and frustrated with IoT, who has

written of this perspective:

> I'm no saint. I run a parody account that pokes fun at the ever-escalating hilarity
> of these devices, yet I've bought into them frivolously. I have smart speakers,
> online lightbulbs that need firmware updates, an internet-connected thermostat
> that's repeatedly left me freezing in the winter, and smart plugs that apparently
> can't figure out how to turn themselves on.
>
> Embarrassingly, as a result, a good chunk of my grown-up life has been spent
> standing in my living room, cursing at my lights as they refuse to update (or even
> turn on) while trying to show people who visit just how cool my internet house
> is.[17]

Following competing sentiments towards the industry during two decades of immense

growth, through an era of Web 2.0 fetishization and the subsequent techlash, such a

conflicted relationship with technology seems an obvious result even if rarely this clearly

expressed. Though emergent technology may be novel or function as status symbol for

the citizen-cum-consumer, it is also burdened by the technical complications and societal

implications of digital, networked systems. As Joshua Reeves notes, "Digital automation,

like most other radical socioeconomic innovations, has inconsistent and ambivalent

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[16] @internetofshit, "Toasters but with subscription model", Twitter, tweet, January 28, 2019, 12:12 AM, https://twitter.com/internetofshit/status/1089783359465615360; Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York, NY: Public Affairs, 2019), 9; This comparison to the alienation of workers from the product of their labor is described by Shoshana Zuboff as a "parasitic and self-referential" characteristic of surveillance capitalism, where "instead of labor [in Marx's observation of capitalism's vampirism], surveillance capitalism feeds on every aspect of every human's experience" (9).

[17] Internet of Shit, "The Internet of Things has a dirty little secret."

effects."[18] A smart toaster is more expensive, prone to failure, and comes with hidden strings attached—but isn't it neat? Such a device would perhaps be the nearest approximation possible to the anthropomorphic objects of children's stories, with inferred magic as a valuable simplification for users. As Shoshana Zuboff writes, "the unprecedented reliably confounds understanding; existing lenses illuminate the familiar, thus obscuring the original by turning the unprecedented into an extension of the past."[19] In any case, the benefits and drawbacks are often easy to identify and serve as evidence for rhetorics advocating for and against such technologies.

<div align="center">Research Questions</div>

This dissertation examines how people discuss controversial technologies online. Specifically, it attempts to analyze public deliberation on the social media site reddit (www.reddit.com) of two cases: Amazon's virtual assistant Alexa, and the first cryptocurrency, Bitcoin. In addition, it offers insight regarding approximately the first six years of Alexa as a domestic artificial intelligence artifact and the first twelve years of Bitcoin as a financial technology phenomenon. These systems—and their varied articulations in different devices—are controversial in different ways, but a state of pro-tech vs. anti-tech arguments consistently emerges in public deliberation. Therefore, the first question of this project is: *What are the terms, patterns, and logics in the binarized reddit deliberations of emergent technology?* Beyond this binary, it seems there is an important alternative rhetorical practice of those conflicted like Internet of Shit, yet not abstaining from discussion. I will name it *glitching*, and so the second question of this

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[18] Joshua Reeves, "Automatic for the people: the automation of communicative labor," *Communication and Critical/Cultural Studies* 13, no. 2 (2016): 151, https://doi.org/10.1080/14791420.2015.1108450.

[19] Zuboff, *The Age of Surveillance Capitalism*, 12.

project is: *In what way do redditors* glitch *the deliberation of emergent technology?* In the pages that follow, I will detail the binary nature of technology deliberation, the concept of *glitch* as not only technological error but also an ambivalent condition and rhetorical style (the dissertation's theoretical contribution to digital rhetoric and rhetoric of technology scholarship), reddit, the two systems which the deliberations concern, and finally the complementary analytical methods of Kendall Phillips's rhetorical-archaeological analysis of controversy and digital rhetorical ethnography used to answer my first and second questions, respectively.

Literature Review

Throughout this dissertation, I will refer to academic scholarship in rhetoric, media studies, and other disciplines—amounting to over one hundred bibliographic entries of this reference type—as well as a large number of popular sources. In the section to follow, I will draw from academic work to describe binarized deliberation of technology, the concept of *glitch*, and the social media site reddit. In a subsequent section on methods, my citation of academic books and peer-reviewed journal articles continues, as it does in the chapters on Alexa and Bitcoin where scholarship in surveillance studies and on social aspects of money are referenced, respectively.

Theory

Binary

Digital technology is distinct from other technology in its use of binary code (0s and 1s which signify on or off states and in long strings can represent more complex

actions), and it is also subject to a binarized deliberation.[20] As David J. Gunkel writes, "the rhetoric of digital technology is itself digital," and from discussions of a socioeconomic digital divide to evaluations of the popular 2016 augmented reality game *Pokémon Go*, a binary structure guides critical interpretation.[21] This might be reduced to pro-tech arguments of those who are more enamored with the current and soon-possible technological ages, in contrast to the anti-tech arguments of those more critical towards the state of our systems and dystopian futures which they portend. This binary is an oversimplification that pairs well with the ancient understanding of controversy and rhetoric, which often emphasizes two contrasting arguments on any given topic that sharpen each other and work generatively towards a co-created solution. "Rhetoricians," James Jasinski writes, "might speak of a *dialectic of affirmation and subversion* in deliberative discourse."[22] The sophist Protagoras's antilogic, with Cicero and Quntilian's *controversia* as a Roman descendant, is described by Michael Mendelson as "a form of argument especially suited to the multiplicity of the post/modern cosmo*polis,*" if adapted beyond the standard two sides.[23]

Such an adaptation, "deciding to think in binary terms or not," as Gunkel notes, "is itself just another instance of binary opposition," and to escape this conundrum requires a poststructuralist strategy: either the use of a neologism or a paleologism as a

[20] David J. Gunkel, "Critique of Digital Reason," in *Theorizing Digital Rhetoric*, eds. Aaron Hess and Amber Davisson (New York, NY: Routledge, 2018), 19-31; Michael Heim, *Virtual Realism* (New York, NY: Oxford University Press, 1998).

[21] Gunkel, "Critique of Digital Reason," 21-23.

[22] James Jasinski, "Dialectic," in *Sourcebook on Rhetoric: Key Concepts in Contemporary Rhetorical Studies* (Thousand Oaks, CA: Sage Publications, 2001), 167.

[23] Michael Mendelson, *Many Sides: A Protagorean Approach to the Theory, Practice, and Pedagogy of Argument* (Dordrecht, The Netherlands: Kluwer Academic Publishers, 2002), 256.

"non-dialectical third term."[24] Gunkel points to the terms of Jacques Derrida, Donna

Haraway, Emmanuel Levinas, and Jean Baudrillard (*deconstruction, cyborg*, *other*, and

simulation, respectively) as exemplary of such an escape, new and old words used as

concepts that break free from Ferdinand de Sassure's structural linguistics and G. W. F.

Hegel's recurrent dialectic.[25] "The *pharmakon*," Derrida writes of his paleologism

identified by Gunkel, "is neither remedy nor poison, neither good nor evil, neither the

inside nor the outside, neither speech nor writing."[26] Kenneth Burke similarly recognized

that instead of an "antithetical vocabulary" which requires acceptance or rejection, "by

using a graded vocabulary, you can instead recognize the cult of commodities as a mode

of transcendence that is genuine, but inferior." [27] If transcendence in the form of a centrist

rhetoric takes on the role of synthesis in Hegel's dialectic (e.g., attempting to rise above

political partisanship, a left which "*vanishes in its opposite"* the right, becoming a

progressive neoliberalism only to be opposed by another antithesis), a new or repurposed

term could instead "inhabit philosophical opposition, resisting and disorganizing it."[28]

Returning to the Samsung Family Hub refrigerator, *The Verge*, Internet of Shit,

and Twitter, we may consider a yet-to-be-named neither/nor conceptualization, a third

term which eludes "the gravitational pull of the binary structures it struggles against and

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[24] Gunkel, "Critique of Digital Reason," 23-25.

[25] Gunkel, "Critique of Digital Reason," 22-26, 29.

[26] Jacques Derrida, *Positions,* trans. Alan Bass (Chicago, IL: University of Chicago Press, 1981), 43.

[27] Kenneth Burke, *A Rhetoric of Motives* (Berkeley, CA: University of California Press, 1969), 192.

[28] Antonio de Velasco, *Centrist Rhetoric: The Production of Political Transcendence in the Clinton Presidency* (Lanham, MD: Lexington Books, 2010); G.W.F. Hegel, *Hegel's Science of Logic*, trans. A.V. Miller (London, UK: George Allen & Unwin, 1969), 83; Nancy Fraser, "From Progressive Neoliberalism to Trump—and Beyond," *American Affairs* 1, no. 4 (2017): 46-64, https://americanaffairsjournal.org/2017/11/progressive-neoliberalism-trump-beyond/; Derrida, *Positions*, 43.

cannot help but utilize."[29] As mentioned previously, technologies operate via binary code, but in addition labels denoting what can be reduced to two opposing orientations toward technology (e.g. enthusiast and Luddite), as well as binary rhetorics are widespread in the deliberation of emergent technology. Further, the binary of public and private spheres, collapsed in this context which led to my use above of *citizen-cum-consumer*, might instead be considered a neither/nor sphericule for the circulation of vernacular deliberation and labeled with a term that more clearly indicates the shape of contemporary deliberation via social media. Alongside the first three—the binary operation of technologies, supposed binary orientations, and binary rhetorics—glitched technologies, a *glitchy* subjectivity, and *glitched* rhetorics exist and deserve analysis.

Glitch

The common definition of glitch is technological error or the occurrence of that error (from the Yiddish noun *glitsh*—"a slip or lapse"—and verb *glitshn*—"to slip"), but lexicographer Ben Zimmer claims a slip of the tongue on radio airwaves to be the original referent of the word in American English, before more technical definitions as visible television interference (i.e. static) and spaceship voltage spikes, and then subsequently as astronaut slang and imaginative explanation of computer failure (e.g. acronymized as "Gremlins Lurking in the Computer Hardware").[30] This is the foundation upon which I understand glitched technologies as important failures for the deliberation

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[29] Gunkel, "Critique of Digital Reason," 28.

[30] Ben Zimmer, "Yiddish Meets High Tech in 'Glitch,'" *The Wall Street Journal,* November 1, 2013, https://www.wsj.com/articles/yiddish-meets-high-tech-in-8216glitch8217-1383354568; John H. Glenn, Jr., "Glitches in Time Save Trouble," in *We Seven: By the Astronauts Themselves* (New York, NY: Simon & Schuster, 1962), 159-160.

of new systems, hardware and software which err, resisting the pull of their binary existence.

My first encounter with the term "glitch" as something more theoretically complex came while reading an article by Kyle Chayka on the aesthetic impact of algorithms for fashion, taste, and style, beginning with an interrogation of the "Style Check" function of Amazon's Echo Look device.[31] While contemplating data-driven and generic fashion trends, Chayka proposes a non-dialectic option to the binary of human versus machine curation of an industry: "A better mode of resistance might be to use the algorithms' homogenizing averageness against them, adapting their data for productive disruption. We can take advantage of the clash between multiple algorithmic ideals, or between an algorithm's vision of the world and reality, creating a **glitch-based aesthetic**. What would be error could be art."[32] This bolded phrase in Chayka's article links to the *Glitch Studies Manifesto.*

Within the manifesto, glitch artist Rosa Menkman defines the glitch as "a break from a flow within a technology, or a method to open up the political discourse."[33] They are randomly-occurring or human-induced instances of digital media error. Glitch artworks often feature the aberration of blocky artifacts: the disordered, discolored, and/or decomposed interruptions in the image. It is reminiscent of that historical use of the term in referring to visible television interference, but with the added conceit of

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[31] Kyle Chayka, "Style Is an Algorithm," *Vox*, April 17, 2018, https://www.vox.com/2018/4/17/17219166/fashion-style-algorithm-amazon-echo-look.

[32] Chayka, "Style Is an Algorithm."

[33] Rosa Menkman, "Glitch Studies Manifesto," 2010, accessed August 1, 2022, http://amodern.net/wp-content/uploads/2016/05/2010_Original_Rosa-Menkman-Glitch-Studies-Manifesto.pdf, 7.

technological failure as aesthetically pleasing. Glitching an image or video puts front and center the fact that the image is a digital representation, or if glitched to the point of non-recognition that it is a digital abstraction. A glitched image of a pipe needs no caption to point out that it isn't actually a pipe. And if we recognize the concept of flow—central to Menkman's definition—has evolved from an important element of television's appeal as established in the media studies canon to something undergirding the algorithmic delivery of content which demands to be engaged—binged or scrolled through—*ad nauseum*, in a sense structuring what we (or at least we the "Extremely Online") know and think, then to glitch becomes more than digital surrealism.[34] *Glitching reveals the treachery of technology* (Figure 2).

Figure 2: A glitched image of a pipe[35]

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[34] Raymond Williams, *Television: Technology and cultural form*, ed. Ederyn Williams (New York, NY: Routledge, 2003); Jay Hathaway, "What does it mean to be Extremely Online?" *Daily Dot*, May 29, 2018, https://www.dailydot.com/unclick/what-does-it-mean-to-be-extremely-online/; Kevin Roose, "The Making of a YouTube Radical," *The New York Times*, June 8, 2019, https://www.nytimes.com/interactive/2019/06/08/technology/youtube-radical.html; Kyle Chayka, "The Age of Algorithmic Anxiety," *The New Yorker*, July 25, 2022, https://www.newyorker.com/culture/infinite-scroll/the-age-of-algorithmic-anxiety.

[35] This is my own glitching of René Magritte's 1929 painting *The Treachery of Images*, the result of running a JPEG file of the original—cropped to cut off the French caption "Ceci n'est pas une pipe," which

Casey Boyle has already described glitches as artifacts which turn the rhetorician's attention to relations among people and media in a "metastable orientation" rather than at form and through form to substance as in Richard Lanham's "bistable oscillation."[36] This is not to say that analyzing digital rhetorics in a "bistable oscillation" is of no value, and such work includes the interpretation of what I call binary rhetorics in the deliberation of emergent technologies. However, to make sense of glitches, which can often appear senseless, requires the turn Boyle prescribes to a focus on relations within the practice of mediated rhetorics. Boyle limits his usage of glitch to rhetorical practice, and building off his work Scott Sundvall explores the potential of "*heuretic glitchicism*," an intentional method of glitch criticism.[37]

Considering their appropriation of the term for composition, retaining the visual aspect of the artistic style, I see a different usage of glitch possible and preferable for we who arrive at digital rhetoric from the tradition of public address scholarship. The noun and verb, in a variety of forms including the adjective *glitched* and *glitchy*, is the non-dialectical third term I employ to describe conflict not expressed in binary structure, yet present as we are non-binary beings experiencing a continuous life and death in relation to our digital technologies which merely oscillate between the states of on (1) and off (0).[38] I consider the ambivalence of public sentiment regarding technology to be *glitchy*.

translates as "This is not a pipe"—through the free audio editing program Audacity and applying various sound effects.

[36] Casey Boyle, "The Rhetorical Question Concerning Glitch," *Computers and Composition* 35, (2015): 27. https://doi.org/10.1016/j.compcom.2015.01.003.

[37] Scott Sundvall, "Everything is (not so) Terrible!: Heuretic Glitchicism as Method for Electrate (Re)composing," *Computers and Composition* 56, (2020). https://doi.org/10.1016/j.compcom.2020.102575.

[38] Jean Baudrillard, *Simulacra and Simulation,* trans. Sheila Faria Glaser (Ann Arbor, MI: University of Michigan Press, 1994), 111; By "experiencing a continuous life and death in relation to our binary technologies" I mean to suggest that we exist in a suspended state between the two, half awake. An

Put differently, the simultaneous infatuation and terror caused by new technology has led certain publics to the messy and fraught reality of willingly engaging with systems which harm and extract from users. To be situated on the bleeding edge is to be neither within the halycon before nor the ideal after of technology. To *glitch* is to recognize this place as a kind of temporal utopia (from the ancient Greek οὐ meaning "not" and τόπος meaning "place," and employed here without the value judgement), or *nepantla*, the term itself a paleologism—originally of the Aztec's Nahuatl language and redeployed by Gloria E. Anzaldúa to describe a mindset between cultural worlds.[39] The *glitchy*, as result of their existence as non-binary beings, shift and contort the binarized controversies of emergent technology.

By "non-binary beings" I don't mean across or separate from a gender spectrum as the term is popularly used in conjunction with identity, but a broader neither/nor subjectivity. This difference in scale came to mind as I walked past a Denver bar shortly before Christmas Day of 2018. A person who I assumed to be queer, clad in Santa garb as a sort of festive drag, approached me and asked if I was naughty or nice. "I'm non-binary," was my response, delivered rapidly to my surprise, but which I interpret as the result of reflecting on moral ambiguity described by Martin Luther King, Jr. in a sermon which cites similar thinking by Plato, Ovid, Paul the Apostle, Goethe to claim "within the

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example of this is the zombie-like state many enter when their attention is almost wholly pointed toward their phone. Surely this is not to be dead, but a time-traveling observer from the 20th century could be forgiven for not recognizing a zoned-out phone zombie to in fact be alive. A similar notion is Baudrillard's description of technology as "an extension of the body" but also "the mortal deconstruction of the body […] the extension of death" as it appears in J.G. Ballard's 1973 novel *Crash* (111).

[39] "utopia, n.", *Oxford English Dictionary Online* (June 2022), Oxford University Press, https://www-oed-com.ezproxy.memphis.edu/view/Entry/220784?redirectedFrom=utopia; Gloria E. Anzaldúa, "(Un)natural bridges, (Un)safe spaces," in *This Bridge We Call Home: Radical Visions for Transformation*, eds. Gloria E. Anzaldúa and AnaLouise Keating (New York, NY: Routledge, 2002), 1-5.

best of us, there is some evil, and within the worst of us, there is some good," to the point

of this becoming a personal mantra for my own form of humanism.[40] The Santa laughed

and encouraged me to openly express this identity. I intend to do so.

Exploration of this moral philosophy, which I predict would elicit criticism as

reaching a dialectical third term or synthesis at the expense of "non-binary" people in the

common usage of the term, is not the focus of this project, but runs parallel to my

thinking in the realm of technological deliberation.[41] "Unfortunately, the moral arc of the

internet bends toward polarization," writes tech journalist Charlie Warzel.[42] Polarization

is an effect of the binary structure of technology, including social media, which results in

the filter bubble described by Eli Pariser.[43] As Whitney Phillips and Ryan M. Milner

note, "It's a brave new world […] and there is nothing new under the sun; and only by

embracing this ambivalence can any of us hope to successfully navigate the

contemporary digital media landscape."[44] While King claims all people to be some

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[40] Martin Luther King, Jr., "'Loving Your Enemies,' Sermon Delivered at Dexter Avenue Baptist Church," The Martin Luther King, Jr. Research and Education Institute, Stanford University, accessed August 1, 2022, https://kinginstitute.stanford.edu/king-papers/documents/loving-your-enemies-sermon-delivered-dexter-avenue-baptist-church.

[41] Daniel Bergner, "The Struggles of Rejecting the Gender Binary," *The New York Times Magazine*, June 4, 2019, https://www.nytimes.com/2019/06/04/magazine/gender-nonbinary.html; I intend to point out a similarity here, suggesting that there is a structure guiding our arguments and sense of self in relation to technology that resembles the binding structure of gender as traditionally understood. Just as we might apply a flawed binary logic to make sense of our gendered interactions with others (e.g. interpreting touch among two coworkers who identify as men differently than how we might perceive such behavior between a woman and a man, or a reader finding my comparison harmful based on an assumption that I am a cis man), so too are our common conceptualizations and articulations of living with technology limited and incomplete.

[42] Charlie Warzel, "We Are Watching History Unfold in Real Time," *The New York Times,* June 2, 2020, https://www.nytimes.com/2020/06/02/opinion/floyd-protest-twitter.html.

[43] Eli Pariser, *The Filter Bubble: What the Internet Is Hiding from You* (New York, NY: Penguin Press, 2011).

[44] Whitney Phillips and Ryan M. Milner, *The Ambivalent Internet: Mischief, Oddity, and Antagonism Online* (Malden, MA: Polity Press, 2017), 16.

combination of good and bad, I posit an extension of Phillips and Milner's ambivalent

internet in describing the condition of users: with technology we are neither good nor

bad. We're *glitchy*.

This *glitchiness* is not the passively nihilistic orientation to technology described

by Nolen Gertz, who in his Nietzschean analysis finds many people to be subdued and

uncritical users of technology, having replaced a dead God with a thriving, omniscient

Google.[45] What I call the *glitchy* users are those who take up Gertz's charge to be critical,

active nihilists, who relate otherwise to technology and its deliberation.[46] This is not

simply to "think different"—the phrase serving as Apple's 1997 counter-slogan to IBM's

"Think" (Figure 3)—but to *glitch* the binary deliberation of technological process with

grounded articulation of a discontented ambivalence towards the devices that now

mediate life.[47] Such devices elicit bittersweet feelings, just as letters or a gift from a lover

who has crossed the sea with no plans to return.[48]

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[45] Nolen Gertz, *Nihilism and Technology* (London, UK: Rowman & Littlefield International, 2018).

[46] Nolen Gertz, "Nihilism," *Aeon*, February 27, 2020, https://aeon.co/essays/if-you-believe-in-nihilism-do-you-believe-in-anything; David J. Gunkel, *Thinking Otherwise: Philosophy, Communication, Technology* (West Lafayette, IN: Purdue University Press, 2007).

[47] Rob Siltanen, "The Real Story Behind Apple's 'Think Different' Campaign," *Forbes*, December 14, 2011, https://www.forbes.com/sites/onmarketing/2011/12/14/the-real-story-behind-apples-think-different-campaign/#143459c962ab.

[48] Bob Dylan, "Boots of Spanish Leather," recorded August 1963, track 7 on *The Times They Are a-Changin'*, Columbia, compact disc; "Spanish boots" are a gift described in this song but might also refer to a torture device associated with the Spanish Inquisition.

Figure 3: 1998 Apple Poster featuring Bob Dylan

Therefore, *glitched* rhetorics can be described as ambivalent and irreverent interruptions in the binary oscillation of vernacular deliberation about technology which frequently appear in digital fora. This subset of arguments commonly suffers the logical error of *reductio ad absurdum*, but to expect precision in the reasoning of a *glitched* rhetoric is to demand that it not be *glitched*, or that it not reflect the irrationality of a *glitchy* rhetor's relationship with technology. Comedy is very often a key element here, as the genre has a "capacity to hold together a greater variety of manifestly clashing or ambiguous affects."[49]

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[49] Lauren Berlant and Sianne Ngai, "Comedy Has Issues," *Critical Inquiry* 43, no. 2 (2017): 239. https://doi.org/10.1086/689666.

As demonstrated by Internet of Shit, humor can effectively interrupt the usually flowing and frictionless rhetorical circulation of information about a new product.

Gunkel, expanding upon Ian Bogost's idea of procedural rhetoric, notes that "Crafting a persuasive argument, following the twist and turns of another's logic, and developing an insightful critique of the different positions that are already available are all aspects of an elaborate game."[50] In a similar vein, Jill Anne Morris, with substantial reference to Whitney Phillips's analysis of trolling culture, suggests that internet argument should be analyzed and taught as an elaborate rhetorical game in which rhetorical models that have previously been effective are rendered useless in the face of fallacious arguments and unique tactics employed by momentary collectives.[51] *Glitching*, which at times includes the irrational but effective digital rhetorics that Morris identifies, is a playful action. It is tinkering with the digital to better understand it, and to reveal the obscured procedural governing structures. This contrasts with hacking, which has also been described by some to include playful elements but nevertheless is typically geared toward covert achievement of a nefarious goal.[52] *Glitching* is most often characterized as apolitical in intent, particularly when uninitiated by humans, even if it may lead to political revelations about media and technology. Whereas hacks tend to not be

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[50] David J. Gunkel, *Gaming the System: Deconstructing Video Games, Games Studies, and Virtual Worlds* (Bloomington, IN: Indiana University Press, 2018), ix; Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (Cambridge, MA: MIT Press, 2007).

[51] Jill Anne Morris, *The Internet as a Game* (Anderson, SC: Parlor Press, 2018); Whitney Phillips, *This Is Why We Can't Have Nice Things: Mapping the Relationship between Online Trolling and Mainstream Culture* (Cambridge, MA: MIT Press, 2015).

[52] danah boyd, "Hacking the Attention Economy," *Data & Society: Points,* January 5, 2017, https://points.datasociety.net/hacking-the-attention-economy-9fa1daca7a37.

serendipitous, *glitches* very often are.[53] Demonstrating this difference, the compound word *lifehack* implies some purposeful action taken by a person to better manage some mundane aspect of daily life (e.g. a *lifehack* for always remembering where you put your keys) whereas *glitch* has no equivalent variation that refers to action towards a stable change. The terminology is not yet settled and standardized, but to make this distinction between the two words is important for my notion of *glitched* rhetorics.

The *glitchy* condition and its articulation in *glitched* rhetorics bear resemblance to the carnivalesque as theorized by Mikhail Bakhtin. In his study of the 16th century French satirist Rabelais, Bakhtin writes of a carnival culture which would upend the official order for a period of time and momentarily privilege the underclass, the grotesque, and bodily functions including laughter.[54] Of critical importance to this theorization is the temporal element of carnival, as momentary freedom from normal order via ritual which ultimately serves that order like a pressure valve. As Elizaveta Gaufman and Theodore F. Sheckels point out, even powerful groups might enact carnival when they feel threatened.[55] Gaufman, in an application of carnival to the campaign of President Donald J. Trump, describes the carnivalesque aspects of social media and the broader internet culture. There, she points out a "multidirectional discourse" which compacts among a variety of things "cat videos and quality journalism" in platform feeds populated with

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[53] Chris Ingraham, "Serendipity as cultural technique," *Culture, Theory and Critique* 60, no. 2 (2019): 1-16. https://doi.org/10.1080/14735784.2019.1579657.

[54] Mikhail Bakhtin, *Rabelais and His World,* trans. Hélène Iswolsky (Bloomington, IN: Indiana University Press, 2009).

[55] Elizaveta Gaufman, "The Trump carnival: Popular appeal in the age of misinformation," *International Relations* 32, no. 4 (2018): 410-429. https://doi.org/10.1177/0047117818773130; Theodore F. Sheckels, *When Congress Debates, A Bakhtinian Paradigm* (Westport, CT: Praeger, 2000).

trolls.[56] Richard Benjamin Crosby includes carnival as a form of rhetorical *grotesquerie* which is effective during "a historical moment in which the political establishment has reached a certain threshold of ridiculousness, what might be called a grotesque kairos."[57] As Bakhtin considered the satirical novels of Rabelais as a voice for the underclass in Renaissance France, so now does the folkish humor of internet culture act as a conduit for groups which are oppressed, or those which merely perceive themselves to be oppressed.

I've taken this brief detour through Bakhtin's carnival to suggest that the *glitch* condition and the absurd culture of the internet has illuminating antecedents, not only in its tendency towards debauchery but also in employing vernacular language, which Chris Ingraham suggests we recognize as "*language that talks"* instead of "*language that talks about.*"[58] However, unlike the carnival culture where religious and monarchical orders were to be resumed after the event, the *glitch* condition and its vernacular expressions have no bounded end in sight. The digital carnival has no timeline, and users will continue to engage with technology and convey their conflicted experience, exacerbated by new releases. The *glitched* rhetorics which have recently been circulated online can be understood as recent episodes in a long tradition of low talk, and in the chapters to follow I suggest these phenomena can be more accurately understood when compared to anecdotes about a prominent Greek figure in that aforementioned tradition: Diogenes of Sinope. Many of the posts and comments on reddit regarding Alexa and Bitcoin bear a

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[56] Gaufman, "The Trump carnival," 5.

[57] Richard Benjamin Crosby, "On the Rhetorical Grotesque: A Mode for Strange Times," *Rhetoric Society Quarterly* 50, no. 2 (2020): 113. https://doi.org/10.1080/02773945.2020.1723680.

[58] Chris Ingraham, "Talking (About) the Elite and Mass: Vernacular Rhetoric and Discursive Status," *Philosophy and Rhetoric* 46, no. 1 (2013): 1. https://doi.org/10.5325/philrhet.46.1.0001.

strong resemblance to his trickster style, as conveyed in anecdotes from antiquity.[59] Just as the profane Diogenes was said to have barged in during Plato's lectures in the Academy—once challenging the great philosopher's idealist definition of man as "an animal with two legs and no feathers," by bringing a plucked cock and proclaiming "Here is Plato's man"—*glitched* rhetorics employ vulgarity to interrupt the binarized deliberation of emergent technology.[60]

Glitchy subjects are not some subaltern population of the technological age. That distinction goes to the enslaved people and child laborers in rare earth metal mines and factory workers manufacturing devices in poor conditions for low wages.[61] The *glitchy* users are technologically affluent but articulate a perceived yet relatively insignificant disempowerment of such a condition. However, this articulation in the form of *glitched* rhetorics is particularly effective in impacting the wider societal navigation of new technology. It's not uncommon, regardless of whichever branch of a fragmented culture you find yourself in, to come across satirical narratives of personal experience with technology and an extrapolated, absurd future. Popular entertainment, such as television shows *Black Mirror* and *Westworld,* feature depictions of sleek technologies, but those same devices and systems lead to tragedy for human characters, mirroring the *glitchy* existence with technology. *The New York Times* has published fictional "Op-Eds From

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[59] Diogenes Laertius, *Lives of the Eminent Philosophers*, trans. Pamela Mensch, ed. James Miller (New York, NY: Oxford University Press, 2020).

[60] Laertius, *Lives of the Eminent Philosophers*, 6.40.

[61] Daniel Cooper, "You can't buy an ethical smartphone today," *Engadget*, February 6, 2018, https://www.engadget.com/2018/02/06/ethical-smartphone-conscious-consumption/; Todd C. Frankel, "The Cobalt Pipeline," *The Washington Post*, September 30, 2016, https://www.washingtonpost.com/graphics/business/batteries/congo-cobalt-mining-for-lithium-ion-battery/.

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the Future," in which authors reflect on the benefits and flaws of a society to come, short reflections that would fit comfortably within the cyberpunk literary genre.[62] These imaginings may subsequently be referenced through intertextual satire.[63] Voicing the *glitchy* condition on social media, analogous to the way a political novel spotlights some societal problem, streaks pixels across the pro/con public deliberation, corrupting it and pointing attention to a broader and ambivalent understanding of how technology emerges and shapes human life.

Reminiscent of the carnival's grotesque bodily humor and heavily employed by *glitchy* rhetors, the word "shit" is illustrative of the connection. Among simplistic pro/con evaluations by either proponents or opponents of a digital refrigerator, Internet of Shit employs a neither/nor argument from a conflicted perspective which cannot help but reveal the absurdity of a smart refrigerator. Internet of Shit is *glitchy* like all tech users, but unlike all of us the account articulates it effectively via the *glitched* rhetoric of satire. On another platform we may stumble across the similar work of Simone Giertz and Michael Reeves, YouTubers who make what have come to be widely known across the internet as "shitty robots." Giertz's Comment Assistant™, a mannequin head attached to a robotic arm which drags haphazardly across a keyboard to "argue on the internet" for its creator, and Reeves's "Roomba That Screams When It Bumps Into Stuff," which yells in pain "OWWWW!! WHY WAS I CREATED THIS WAY!!" after bumping into the

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[62] The New York Times, "Op-Eds From the Future," *The New York Times,* accessed August 1, 2022, https://www.nytimes.com/spotlight/future-oped.

[63] Barbara Warnick and David S. Heineman, *Rhetoric Online: The Politics of New Media* (New York, NY: Peter Lang, 2012), 83.

base of a kitchen counter, are glitched technologies described with ironic arguments of usefulness despite their apparent shittiness, a *glitched* rhetorical technique.[64]

That these accounts have found success in circulation of their content and whatever accompanying monetization possible is evidence of a widespread *glitchy* orientation to technology. In fact, I assume that few people and none who participate in digital civic life actually maintain a binary orientation—entirely a proponent or an opponent—towards technology. Consider Steve Jobs, the visionary for both his Apple and greater Silicon Valley to the point that admiration of him has become cliché. Nathan Heller describes Jobs around the time of Apple's 2007 iPhone announcement:

> The iPhone's problems were legion and unpredictable. It randomly dropped calls on its cellular channel. It had trouble holding connections on Wi-Fi. Its memory was so buggy that it needed frequent re-starting, like a ten-year-old computer, and it crashed when anybody tried to play a video in its entirety. Jobs intended to announce a late-June shipping date, as if production were already under way. In truth, the iPhone lacked even a manufacturing plan: no one at Apple knew how the company was going to be able to build and ship the device in volume.
>
> Jobs was both the source of this predicament and—at least in the sense that enslaved oarsmen rely on their captain for a route back to land—the solution. His management style was to commit to the impossible and drive his staff, often cruelly, to produce results. He treated his employees with a mixture of fickle favoritism and blame. "Very rarely did I see him become completely unglued," one of his engineers tells the journalist Fred Vogelstein, in his new book, "Dogfight: How Apple and Google Went to War and Started a Revolution." "Mostly he just looked at you and very directly said in a very loud and stern voice, 'You are fucking up my company,' or, 'If we fail, it will be because of you.'"[65]

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[64] Simone Giertz, "I made a robot to help me argue on the internet," March 16, 2016, video, 0:06, https://www.youtube.com/watch?v=PJiRijiLwbQ; Michael Reeves, "The Roomba That Screams When it Bumps Into Stuff," May 4, 2019, video, 10:58, https://youtu.be/mvz3LRK263E?t=211.

[65] Nathan Heller, "Naked Launch," *The New Yorker*, November 17, 2013, https://www.newyorker.com/magazine/2013/11/25/naked-launch.

Jobs's management style reveals an anger and frustration within the leader, no doubt the result of leading a company that faced major technical obstacles, glitches all around. Even he, one of the most important leaders and speakers towards imagining a fictional, friction-less future with technology, was prone to reveal himself as *glitchy* during product demos gone awry.[66] The binary rhetoric of Jobs's product pitch was no match for a camera that wouldn't sync with a desktop computer or an iPhone that couldn't maintain a Wi-Fi connection—glitched technology—and his thinly-veiled rage was obvious to anxiously laughing audience members.

Artifact: reddit

Examples like the above are innumerable, whether preserved online or not, and I expect that in the course of reading this far some might have reflected on their own personal experiences of *glitch.* Such theoretical framing of life with technology might be utilized towards research of various objects, be it a personal experience, a dataset, or a technology itself. As Michael C. McGee notes, "We can reconcile traditional modes of analysis with the so-called post-modern condition by understanding that our first job as professional consumers of discourse is *inventing a text suitable for criticism.*"[67] This dissertation is a rhetorical analysis, and though it may evoke thought of the ouroboros, it is the rhetorician who assembles the artifact that they intend to critique. There is a certain

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[66] AppleVideoArchive, "Apple Macworld 2001 New York," December 31, 2011, video, 1:41:57, https://youtu.be/6KJZLiic2F8?t=3910; CNET, "Steve Jobs' demo fail (CNET News)," June 7, 2010, video, 4:15, https://www.youtube.com/watch?v=znxQOPFg2mo; Jason Snell, "A look back at Steve Jobs' most colorful keynote moments," *Macworld*, June 29, 2016, https://www.macworld.com/article/3090206/a-look-back-at-steve-jobs-most-colorful-keynote-moments.html.

[67] Michael C. McGee, "Text, Context, and the Fragmentation of Contemporary Culture," in *Contemporary Rhetorical Theory, A Reader,* eds. John Louis Lucaites, Celeste Michelle Condit, and Sally Caudill (New York, NY: Guilford Press, 1999), 76; Emphasis in original.

degree of power wielded in this process, too often unacknowledged in rhetorical analyses

but clear in the resulting emphasis of traditional public address scholarship on speeches

by politicians throughout US history. As Jasinski notes, we might also consider consumer

choices and the surrounding messages to be worthy of rhetorical analysis as they become

the focus of deliberation in the public sphere.[68] This is such an analysis and I invent a

particular webtext, fragmented and incomplete as it may be, for the criticism to follow.

The social media platform reddit (https://www.reddit.com) is a significant and

somewhat accessible repository of deliberations about new technologies as they have

been conducted over the past decade. Founded in 2005 by Steve Huffman and Alexis

Ohanian, as of May 2022 the site holds the US Alexa Ranking of 6th (determined by

pageviews and unique visitors), only behind Google.com, YouTube.com, Yahoo.com,

Amazon.com, and Facebook.com.[69] Michael Seibel, a reddit board member, has called it

"part of the core fabric of the internet," and the site regularly features text posts, links,

images, and discussion related to technology by mostly anonymous users.[70] This occurs

in topic sections of the site, called "subreddits" (signified by a word or phrase following

"r/" such as r/memphis at the URL "https://www.reddit.com/r/memphis/") which users

(commonly referred to as "redditors" and with accounts signified by an account name

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[68] James Jasinski, "Introduction: On Defining Rhetoric as an Object of Intellectual Inquiry," in *Sourcebook on Rhetoric: Key Concepts in Contemporary Rhetorical Studies* (Thousand Oaks, CA: Sage Publications, 2001), xxiii.

[69] Alexa Internet, "Reddit.com Traffic, Demographics and Competitors," *Alexa Internet*, Amazon, accessed May 1, 2022, https://web.archive.org/web/20220501041757/https://www.alexa.com/siteinfo/reddit.com.

[70] Seth Fiegerman, "Aliens in the valley: The complete and chaotic history of Reddit," *Mashable*, Dec 3, 2014, https://mashable.com/archive/history-of-reddit; Nick Statt, "Reddit names Y Combinator CEO Michael Seibel as Alexis Ohanian's replacement," *The Verge*, June 10, 2020, https://www.theverge.com/2020/6/10/21285835/reddit-board-replacement-alexis-ohanian-michael-seibel-y-combinator.

following "u/" such as u/PresidentObama) can select to include or exclude from a personalized main page with certain default subreddits. Posts and comments on reddit are "upvoted" or "downvoted" by users of the site, which results in a numerical value that leads to increased or decreased visibility (and corresponds to essentially valueless "karma" points granted to the corresponding redditor, recognizing their contribution to the platform). The ethos of reddit is complex, with many disregarding the site as foolish, a container of harmful content, or a gateway to such material on other platforms like 4chan, while others find the platform useful for information gathering and entertainment purposes. Notably, "reddit" has become a useful term to append to a Google search (as one might add "wiki") so as to find posts and comment threads on the site which discuss in detail a particular topic.[71] The site foregrounds what Nick Douglas calls the "internet ugly aesthetic" in his analysis of its visual humor, which operates via an emphasis on irony. "On reddit," he notes, "anyone can create a subreddit, and many of these are actively opposed to each other. There are parody subreddits (some goofy, some vitriolic) and parodies of parody subreddits and so on – a real Bakhtinian carnival."[72] One reddit genre Douglas identifies, going by the names "Nailed It" and "Expectations vs. Reality," features circulated images that reveal a distinction between idyllic visions of a craft or purchase (e.g. a perfectly crafted cupcake, depicted on a recipe or packaging) and the

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[71] Dmitri Kyle Brereton, "Google Search Is Dying," *DKB* (blog), February 18, 2022, https://dkb.io/post/google-search-is-dying; Mark Sullivan, "Is Reddit a better search engine than Google?" *Fast Company,* February 17, 2022, https://www.fastcompany.com/90722739/is-reddit-a-better-search-engine-than-google.

[72] Nick Douglas, "It's Supposed to Look Like Shit: The Internet Ugly Aesthetic," *Journal of Visual Culture* 13, no. 3 (2014): 324, https://doi.org/10.1177/1470412914544516.

discordant ugliness of a DIY creation by an amateur or sad reality of a poorly-made

product (Figure 4).[73]

Figure 4: November 2017 post to r/ExpectationVsReality titled "Giant Teddy Bear"[74]

That YouTube videos of "shitty robots" would be linked on reddit seems a given.

In a 2019 interview with tech journalist Kara Swisher, co-founder and CEO Steve

Huffman described reddit as "not social media," but a mixture of tech company and

media company that even he as CEO couldn't accurately categorize.[75] Just as other topics

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[73] Douglas, "It's Supposed to Look Like Shit," 325.

[74] u/hypoid77, "Giant Teddy Bear", reddit, post, November 9, 2017, 8:35 PM, https://www.reddit.com/r/ExpectationVsReality/comments/7bym0l/giant_teddy_bear/.

[75] Eric Johnson, "Will Reddit un-quarantine its biggest pro-Trump community? CEO Steve Huffman isn't holding his breath," *Vox*, July 26, 2019, https://www.vox.com/recode/2019/7/26/8932172/reddit-steve-huffman-the-donald-trump-subreddit-kara-swisher-recode-decode-podcast-interview-live.

are discussed through fitting communication structures, it follows that vernacular rhetorics of technology (i.e. arguments about technology) will also often be digital rhetorics (i.e. arguments through technology).[76] In other words, the publics who favor these systems, those who do not, and the *glitchy* will significantly, but not exclusively, engage with others online via a platform like reddit. Huffman claims a major value of the platform to be the kind of bluntness practiced by *glitchy* users, noting, "we're a place for open and honest conversations—'open and honest' meaning authentic, meaning messy, meaning the best and worst and realest and weirdest parts of humanity."[77] Unlike ephemeral conversations at the bar or at the dinner table, the deliberations on reddit are preserved to varying degrees in extensive comment threads.

As best I can recall, my older brother casually mentioned reddit to me in either 2010 or 2011 while we were both students at NC State. Only later in the decade did studies of reddit emerge in the communication discipline, even as it had become widely popular much earlier.[78] Long before public concern over algorithms or data harvesting, there was a sense that the rapid rise of social media (primarily Facebook, but also Myspace and others, before and after) came with a cost for many users, and the social scientists who taught my introductory communication courses said as much in their lectures. My addictive and reckless use of Facebook left me feeling not connected to family and friends, but lonely and empty, and so I deactivated. reddit was different.

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[76] Laura J. Gurak, *Persuasion and Privacy in Cyberspace: The Online Protests over Lotus MarketPlace and the Clipper Chip* (New Haven, CT: Yale University Press, 1997).

[77] Andrew Marantz, "Reddit and the Struggle to Detoxify the Internet," *The New Yorker,* March 12, 2018, https://www.newyorker.com/magazine/2018/03/19/reddit-and-the-struggle-to-detoxify-the-internet.

[78] Adrienne L. Massanari, *Participatory Culture, Community, and Play: Learning from Reddit* (New York, NY: Peter Lang, 2015).

Instead of my network of in-person relationships and the cultures of NC State, Raleigh, and my hometown in western North Carolina, I encountered a shared spirit and playful culture on reddit, which might have had some collective physical expression in the Bay Area of California but on my East Coast campus I could only conceive of them as existing in an imaginary not-place (or utopia), online. As a result of leaving Facebook, many friends who I didn't see regularly or lost touch with would intimate that when I left their feeds I had become imaginary in some sense too. Though I've returned for a brief period to Facebook, momentarily used Instagram, and harbor an unhealthy Twitter habit (more reading Internet of Shit's tweets than posting my own), reddit has been the most important website for my personal life, and as the container of rhetorics examined during my PhD coursework and this dissertation, reddit has become the most important website of my academic life.

This personal history should not be read as anti-Facebook and pro-reddit. By now my appreciation for resisting such binaries from within should be obvious, and as communicative technologies, both sites render me *glitchy*. Subreddits as websites suffer from being "cells of like-minded individuals who enjoy discussing issue positions that align with their own views" (see for example r/LateStageCapitalism or r/neoliberal), but reddit as a platform engenders not positions, but a broader way of being online.[79] As Tarleton Gillespie notes, the term "platform" suggests social media act as mere intermediaries and this serves to obscure the industry's impact on online discussion and sidestep liability for illegal and harmful content, but labeling social media as "platforms"

[79] Barbara Warnick, "Rehabilitating AI: Argument Loci and the Case for Artificial Intelligence," *Argumentation* 18, no. 2 (2004): 167, https://doi.org/10.1023/B:ARGU.0000024023.55226.59.

cannot decouple their constructed architectural features from the common attitudes that

emerge from user communities.[80] For example, the culture of YouTube is quite different

from that of Twitter. While Facebook's information indulgence left me discontented with

my relationships, reddit's reliable delivery of information and entertainment that suits the

site's specific subcultures leaves me concerned about how much it has influenced all the

knowledge, interests, and thought patterns that make up what I recognize as a

personality—me. For example, consider my opening example of Samsung's refrigerator

and Internet of Shit. Though it comes from another platform, the Samsung refrigerator

would become the focus of a minor meme on reddit which jokes about social capital as

attached to technology (Figure 5).[81] Akin to "Airpod Flexing," redditors ironically

suggest the fridge as a superior material possession to demonstrate that its owner is

"cool" in the juvenile status rather than temperature-related sense of the word.

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[80] Tarleton Gillespie, "The politics of 'platforms,'" *New Media & Society* 12, no. 3 (2010): 359-360, https://doi.org/10.1177/1461444809342738.

[81] Know Your Meme, "Samsung Smart Fridges," *Know Your Meme*, January 2019, https://knowyourmeme.com/memes/subcultures/samsung-smart-fridges.

Figure 5: February 2019 post to r/dankmemes titled "You broke if you don't have a Samsung smart fridge"[82]

The fridge is here distorted via a *glitched* rhetoric that reveals not the product's non-smartness but instead its opulent excess. Perhaps a coincidence, or resulting from the product's multifaceted absurdity, such a crossover appeal of goofing on Samsung across platforms gives me reason to pause. On one hand, I recognize a common humor—the reddit vernacular—that I value but think may also be a limiting paradigm for my thought.

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82 u/Eze10gun, "You broke if you don't have a Samsung smart fridge," reddit, post, February 10, 2019, 9:49 AM,
https://www.reddit.com/r/dankmemes/comments/ap5nqh/you_broke_if_you_dont_have_a_samsung_smart
_fridge/.

On the other hand, the appearance on both Twitter and reddit suggests multiple publics conflicted with such technologies—widespread *glitchiness*.

This is how I arrive, not uniquely but in the common *glitchy* experience, at reddit and the broader realm of technology deliberation as a topic area, which again, despite profound influence has been understudied by communication scholars. In his critique of Google co-founder Sergey Brin's 2013 TED Talk, "Why Google Glass?," Damien Smith Pfister describes not only a lack of attention by rhetoricians to such speeches from the powerful Silicon Valley elite but also to how rhetorics are circulated and interactively consumed via technology.[83] Pfister charges that in response to the technoliberal (a term from anthropologist Thomas Malaby to describe neoliberalism as accelerated by digital technology) incentive towards polarization, "Rhetoricians must be involved in the task of making our digital glass interfaces resemble more dispersive prisms instead, showing how new technologies can be designed to refract common experiences into rich gradients of difference. It is possible to project a rainbow from a common source of light."[84] I would like to think that this dissertation, with its conceptualization of *glitch* as common experience and the diverse articulation via *glitched* rhetorics, works toward such a goal.

In recent years, two controversial, emergent technologies have been the focus of much anxious deliberation on reddit. In regards to the virtual assistant Alexa, accessible through various means but primarily the Echo series of internet-connected devices for the home, this deliberation is often binarized into a position that values the convenience and control possible, and a criticism of the system's potential as a surveillance and data-

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[83] Pfister, "Technoliberal rhetoric, civic attention, and common sensation," 185.

[84] Pfister, "Technoliberal rhetoric, civic attention, and common sensation," 197.

harvesting system only barely obfuscated by vapid consumerism. Bitcoin, the first of many cryptocurrencies, is another emergent technology that has been the focus of many reddit posts and comments, particularly around the volatile peak and crash in value which occurred during December 2017 and January 2018, respectively. Bitcoin, designed to be a decentralized currency without need of or monitoring by government and financial institutions, has essentially become an unregulated security which proponents claim can yield substantial returns and detractors criticize as a dangerous scam. This binary of benefit and harm is the terrain of deliberation about Bitcoin by redditors.

For each of these cases, the two sides might be thought of as what Chaïm Perelman & L. Olbrechts-Tyteca called "philosophical pairs," in that values and experiences from beyond the controversies themselves will often determine which position is valued above another.[85] As Barbara Warnick notes, Ray Kurzweil was able to upend how many valued natural intelligence over artificial intelligence in his 1999 book *The Age of Spiritual Machines* by comparing efficient computer algorithms to relatively-dumb processes of biological evolution.[86] Decades later, though we may find many who still privilege the natural in the artificial/natural philosophical pair, what Jeremy Packer and Joshua Reeves call the "logic of anthropophobia" now reigns, not only in the military context but across much of society.[87] The *glitchy* neither embrace nor reject Alexa and

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[85] Chaïm Perelman & L. Olbrechts-Tyteca, *The New Rhetoric: A Treatise on Argumentation*, trans. John Wilkinson and Purcell Weaver (Notre Dame, IN: University of Notre Dame Press, 1969), 420-421, quoted in Barbara Warnick, "Rehabilitating AI: Argument Loci and the Case for Artificial Intelligence," *Argumentation* 18, no. 2 (2004): 153-154, https://doi.org/10.1023/B:ARGU.0000024023.55226.59.

[86] Warnick, "Rehabilitating AI," 155.

[87] Jeremy Packer and Joshua Reeves, "Romancing the Drone: Military Desire and Anthropophobia from SAGE to Swarm," *Canadian Journal of Communication* 38, no. 3 (2013): 311-313, https://doi.org/10.22230/cjc.2013v38n3a2681.

Bitcoin in the ways listed above, but interrupt and resist such deliberative flows by playing with the systems and the idea of such a technology. To employ a *glitched* rhetoric does not require ownership of the technology in many cases, although this often is productive for the *glitchy* as it allows synchronizing literal glitches with *glitched* rhetorics. The *glitchy* subjectivity is neither technophobic nor technophilic, neither anthrophobic nor anthrophilic. Instead, it plays with the philosophical pairs.

Therefore, while this project only explores the deliberations of two emergent technologies in respective chapters, each is divided into four subchapters—the first an examination of the technology itself and relevant literature, and the other three concerning the distinct orientations (proponent, opponent, and *glitchy*) as they appear on reddit—providing detailed analyses. Further, Alexa and Bitcoin are similar in that they regularly generate controversy—both have been the focus of Super Bowl advertisements in recent years, demonstrating continued significance—but otherwise very different technologies, each with distinctive societal implications. Initially released in 2014, Alexa is an evolving product of an enormous multinational company, while Bitcoin is a communal project first developed by a pseudonymous cryptographer who "mined" the first coins in 2009. This distinction is significant, in that creation, power, and ownership are centralized for Alexa as a Web 2.0 technology, but not Bitcoin, a technological echo of Web 1.0's peer-to-peer infrastructure.[88] In addition, deliberation about Bitcoin considers the technology's potential as a volatile financial instrument or scam (among

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[88] The distinction between these two periods—Web 1.0 & 2.0—is often identified as the advent and wide adoption of social media sites (sometime in the 2000s), but even though Bitcoin and Alexa aren't such platforms I suggest they bear the unique characteristics of their respective eras.

other things), while that of Alexa assesses the virtual assistant as a new figure in older discussions regarding domestic appliances, labor, and surveillance.

The breadth of reddit demands narrowing from the platform to a more discrete set of texts housed within. Despite the size, an organized approach to selecting specific posts for analysis will reveal the typical aspects of rhetorics on the site.[89] Even on just these two cases (which redditors discuss in r/alexa, r/Bitcoin, and elsewhere on the site), there is a vast amount of deliberation preserved in the comment threads of posts, and choosing what to pull out and claim as representative and worthy of analysis is, again, a power wielded by the critic. This understanding from McGee is updated by Warnick for online discourse, as she notes, "The browser reading hypertext chooses his or her own path through a set of possibilities and creates the text s/he reads. The interactivity of many forms of Internet communication leads to a malleable text."[90] Though there is a potential for cherry-picking—emphasizing unrepresentative texts that affirm the critic's argument—an analysis of online rhetoric might also invite readers to take a look themselves at the webtext and specific fragments under consideration by providing URLs and even screenshots throughout.[91] I have attempted this kind of transparent approach.

The influence of algorithms on selecting/creating the set of texts to be analyzed must also be considered in the contemporary era of communication. YouTube, Facebook, and reddit have become so heavily used because the architecture of these sites

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[89] Barbara Warnick, "Rhetorical Criticism of Public Discourse on the Internet: Theoretical Implications," *Rhetoric Society Quarterly* 28, no. 4 (1998): 76, https://doi.org/10.1080/02773949809391131.

[90] Warnick, "Rhetorical Criticism of Public Discourse on the Internet," 75.

[91] Warnick, "Rhetorical Criticism of Public Discourse on the Internet," 76; As Warnick notes, "Mere attention to the words on a web page will not suffice, since the images are so important to textual meaning. Even in texts without images, the way that the text is displayed on the screen has rhetorical impact" (76).

strategically delivers to users the content that will increase their engagement, whether that is a dramatic video, a heavily-"liked" picture, or a controversial post with hundreds or thousands of comments. On reddit this takes the form of different methods for sorting posts (Best, Hot, Controversial, and Rising) on a default or personalized homepage, across the site (r/all), and within individual subreddits. Visitors to the site might also credibly assume additional algorithmic modification from administrators in accordance with attempts across the industry towards eliminating heinous content from various platforms. For example, Safiya Umoja Nobel writes of an experience in fall of 2010: "While Googling things on the Internet that might be interesting to my stepdaughter and nieces, I was overtaken by the results. My search on the keywords 'black girls' yielded HotBlackPussy.com as the first hit. Hit indeed."[92] At the end of the decade, Googling this phrase leads to top results bearing no such salaciousness. This idea of platforms controlling what *matters* via algorithms has also been addressed by Ingraham, who writes, "Any automated procedure that makes things matter by making some things matter more than others is one we have to regard as rhetorical. And if so, the work then begins for those of us interested in critically exposing how different rhetorical practices delimit particular and invested versions of what matters in our world."[93] This is different from an earlier era when algorithms were not as sophisticated and information flowed differently online, less profitably. Instead of the earlier free-for-all, we now have

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[92] Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York, NY: NYU Press, 2018), 3.

[93] Chris Ingraham, "Toward an Algorithmic Rhetoric," in *Digital Rhetoric and Global Literacies: Communication Modes and Digital Practices in the Networked World,* eds. Gustav Verhulsdonck and Marohang Limbu (Hershey, PA: IGI Global, 2014), 76.

atomized and personalized circulation that even includes contributions by artificial

rhetors.[94]

On reddit there are two options for sorting posts that are ostensibly less influenced

by algorithms: "New" and "Top." Sorting by "New" on the site's homepage will generate

a list of posts across all the default subreddits starting with those just made and extending

back in time. As on other social media, numerous posts are constantly being made to

reddit. Few will ever make it to the site's front page (a distinction noted and celebrated

by redditors if achieved) and therefore seen by more than a small number of users.

Therefore, sorting by New is not an effective way to select posts for analysis, as most will

not be significant in deliberation of an emergent technology on the site. Still, there is an

important temporal element that should be noted. "By removing a text from its

environment and studying it in 'freeze frame,'" Warnick writes, "one brackets out its

dynamism which may be an important part of its message."[95] As this relates specifically

to reddit, Adrienne L. Massanari argues in her book on the site's culture "the importance

of preserving the nuances of interactions in these spaces *as they occur*, as global culture

is increasingly lived in and enacted through them."[96] A project which charts the

discussion in flux on the platform seems valuable compared to analysis of a sanitized and

solidified post in the archive. Therefore, *kairos*, the opportune moment, is clearly

important not only for the digital rhetors of such impermanent spaces (e.g. redditors on

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[94] Reeves, "Automatic for the people."

[95] Warnick, "Rhetorical Criticism of Public Discourse on the Internet," 76.

[96] Massanari, *Participatory Culture, Community, and Play*, 2.

reddit), but also for the digital rhetorician who wants to consider temporal aspects of the

live communication within.

This is an ephemerality mirroring that of a speech one witnesses. Though it may

be recorded in part, important aspects and a sensation experienced at the moment of

delivery is lost and can only be surmised by an absent or unborn critic. For example,

rhetoricians writing of Lincoln's second inaugural address in a 1988 issue of the journal

Communication Reports are limited by their access to a transcript of the speech, ancillary

materials, and their understanding of the historical context.[97] Similarly, "the internet is

rotting," in the words of Jonathan Zittrain, who has studied broken links and the shifting

or disappearance of information hosted online, and portions of a rhetorical event online

are rapidly lost in spite of the widespread assumption of internet permanence.[98]

Somewhere between analyzing in real time or over a century later, in this project I

examine reddit posts and comment threads from recent history, including many that I

recall coming across during their moment of prominence as a user even though I didn't

record their development. Further, the rapid advance of technology in recent years cannot

be understated, as various stages along the way have served as the contexts for these

deliberations. Though commanding Alexa to turn on and off the lamp has become for me

a part of what Burke calls "counter-nature," I remember turning the physical switch and

reading redditors' early deliberations concerning the newfangled Echo smart speakers.[99]

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[97] "Special focus: Lincoln's second inaugural address," *Communication Reports* 1, no. 1 (1988): 9-37, https://www.tandfonline.com/toc/rcrs20/1/1.

[98] Jonathan Zittrain, "The Internet is Rotting," *The Atlantic*, June 30, 2021, https://www.theatlantic.com/technology/archive/2021/06/the-internet-is-a-collective-hallucination/619320/.

[99] Kenneth Burke, *On Human Nature: A Gathering While Everything Flows, 1967-1984*, eds. William H. Rueckert and Angelo Bonadonna (Berkeley, CA: University of California Press, 2003), 286.

In order to sample representative texts from the platform for analysis I will utilize the "Top" option of sorting posts, which ranks posts archived on the platform with the greatest numerical value as a result of the "upvote-downvote" process on the platform. For each case, I will examine the 10 highest ranked posts that include the system name in the title ("Alexa" and "Bitcoin") and are focused on the technology (rather than tangential topics), as well as the comments on those posts. Further, I will utilize cached versions of the posts and comment threads when there are indicators of entries that have gone missing or been changed.[100] This will ideally result in a study of the posts and deliberations which were encountered by the most users on the platform, either as readers or participants.

<div align="center">Methods</div>

Rhetorical-Archaeological Analysis of Binary Rhetorics

"To the extent that electronic messages are designed, ordered, and organized to privilege certain ideas and to influence the thinking of their users and readers, rhetorical criticism can be fruitfully applied to illuminate their workings," writes Warnick, adding "The challenge, however, is to adapt our critical methods to the new forms of communication we encounter."[101] The first question of this project is: *What are the terms, patterns, and logics in the binarized reddit deliberations of emergent technology?* The question is formed by my understanding of the digitized deliberation of technology, as already described, and a particular analytical method developed by Kendall Phillips to

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[100] I will use the Internet Archive's Wayback Machine (https://archive.org/web/) as well as the tool Unddit (https://www.unddit.com/). When referring to posts and comments deleted by the users who made them, I will not provide account names or links.

[101] Barbara Warnick, "Rhetorical Criticism in New Media Environments," *Rhetoric Review* 20, no. 1/2 (2001): 63-64, https://www.jstor.org/stable/466139.

analyze rhetorical controversy.[102] This is of course, as Phillips notes, not the only way to

do rhetorical criticism but it is effective in its ability to consider not a singular individual

or text, but to "map the rhetorical terrain" of an issue.[103] His analysis of the rhetorics

surrounding the controversial technology of educational testing includes texts from the

academic, professional, political and popular arenas across three decades, from an

emphasis of the terms *Accountability, Objectives,* and *Products* in the 1970s to that of

Performance, Outcomes, and *Real World* by the late 1990s. Phillips attributes this

evolution to the performance-based assessment movement which aimed to privilege

practical education over standardized testing.[104]

 The method employed by Phillips to chart this controversy in deliberation of

education policy is a three-tiered approach, tending to commonly used *terms*, "patterns of

usage" which he refers to as *discourses*, and the underlying *logics* which have material

implications for educators and students, among others.[105] The approach applies Burke's

cluster-agon analysis, a method which the theorist utilizes towards examining terms in

"associational clusters" of "what goes with what" within a singular text or individual

rhetor, to a wider body of statements which are linked in what Michel Foucault calls a

discursive formation.[106] Phillips recognizes within these discourses the *logics* that drive

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[102] Kendall R. Phillips, *Testing Controversy: A Rhetoric of Educational Reform* (Cresskill, NJ: Hampton Press, 2004).

[103] Phillips, *Testing Controversy*, 8.

[104] Phillips, *Testing Controversy,* 12.

[105] Phillips, *Testing Controversy,* 10.

[106] Carol A. Berthold, "Kenneth Burke's Cluster-Agon Method: Its Development and an Application," *Central States Speech Journal* 27, no. 4 (1976): 302-309, https://doi.org/10.1080/10510977609367908; Kenneth Burke, *Attitudes Toward History* (Berkeley, CA: University of California Press, 1984), 232-233, quoted in Kendall R. Phillips, *Testing Controversy: A Rhetoric of Educational Reform* (Cresskill, NJ: Hampton Press, 2004), 9; Kenneth Burke, *The Philosophy of Literary Form* (Berkeley, CA: University of

action, such as a reduction in school funding and teacher salaries resulting from not

measuring up to the expectations of an educational logic of Excellence.[107] Referencing

the influence of Burke and Foucault on Phillips's approach, I call this method "rhetorical-

archaeological analysis."

While Phillips analyzed the controversy of a practice within a public institution,

the economic incentive towards advancing technology cannot be understated in my

analysis, even as entries subversive to this motive appear in the reddit deliberation. My

selected web of texts, the 10 top-ranked, relevant reddit posts and their attached comment

threads for each of the emergent technologies, is not nearly as vast as the deliberation of

US education policy, but I do think it to be a reflection of the discourse that materializes

in updates and development of new products. The task is therefore to "map the rhetorical

terrain" of these discussions, in *terms*, *patterns*, and *logics*, revealing the landscape of

digital rhetorics of technology specifically concerned with these systems and conducted

on this platform.

Digital Rhetorical Ethnography of Glitched *Rhetorics*

Burke writes, "By charting clusters, we get our cues as to the important

ingredients subsumed in 'symbolic mergers.'"[108] *Glitched* rhetorics are akin to such

mergers, and though Burke claims these to operate on "a hidden 'discounting' in

transcendence," he also writes that "Irony arises when one tries, by the interaction of

California Press, 1973), 20, quoted in Sonja K. Foss *Rhetorical Criticism: Exploration & Practice* (Long Grove, IL: Waveland Press, 2004), 71-72; Michel Foucault, *The Archaeology of Knowledge: And the Discourse on Language* (New York, NY: Vintage Books, 2010), 38.

[107] Phillips, *Testing Controversy*, 10.

[108] Burke, *Attitudes Toward History*, 233.

terms upon one another, to produce a *development* which uses all the terms."[109] He

recognizes this as a trope that a rhetor may use in analyzing a dialectic in which "none of

the participating 'sub-perspectives' can be treated as either precisely right or precisely

wrong."[110] Therefore irony, that standard form of what I call *glitched* rhetorics, is

composed from an understanding of the interaction of polarized argument by an

ambivalent subject—a *glitchy* rhetor, who we might recognize as the builder of

"impious" and "incongruous" statues giving the middle finger atop earnest rhetorical

terrains.[111]

Though Burke recognizes the ironist's production to be bound to an

understanding of this terrain (otherwise limited to a non-ironic relativism), his attention is

here again to a single text or individual rhetor. To describe a cultural tendency towards

irony and general *glitchiness*—towards the kind of "cheeky" arguments that Peter

Sloterdijk recognizes in the low theory of Diogenes (who said what he lived) rather than

the high theory of Plato (who tried to live what he said)—calls for a method which a

traditional rhetorical scholar might regard as impure, in that it extends further than

normal from the text to consider cultural context.[112] I employ digital rhetorical

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[109] Burke, *Attitudes Toward History*, 328; Kenneth Burke, A *Grammar of Motives* (Berkeley, CA: University of California Press, 1969), 512.

[110] Burke, A *Grammar of Motives*, 512.

[111] Kenneth Burke, *Permanence and Change: An Anatomy of Purpose* (Berkeley, CA: University of California Press, 1984), 69-70.

[112] Peter Sloterdijk, *Critique of Cynical Reason*, trans. Michael Eldred (Minneapolis, MN: University of Minnesota Press, 1988), 102, quoted in D. Diane Davis, *Breaking Up [at] Totality: A Rhetoric of Laughter* (Carbondale, IL: Southern Illinois University Press, 2000), 53; Though this may seem cynical, Sloterdijk refers to Diogenes instead as an exemplar of "kynicism."

ethnography to answer the second question of this project: *In what way do redditors* glitch *the deliberation of emergent technology?*

"To grasp more fully the broader significance of digital media, its study must involve various frames of analysis, attention to history, and the local contexts and lived experiences of digital media--a task well suited to the ethnographic enterprise," writes anthropologist Gabriella Coleman.[113] H.L. Goodall Jr. describes ethnography in his book on method as "writing that *rhetorically enables intimacy in the study of culture.*"[114] Such was the case in Hauser's narrative of experiencing vernacular rhetorics as a tourist in Greece during the nation's 1985 election, witnessing arguments in the streets of Athens and watching a candidate's televised speech with staff of the hotel where he and his wife were staying.[115] "To listen and tell a rush of stories is a *method*," writes the influential ethnographer Anna Lowenhaupt Tsing, and her work vividly describes experiences and people overlooked by large scale analysis.[116] Defined simply as culture writing or "thick description," ethnography aims to interpret rituals, practices, events, artifacts, and other components which constitute a culture.[117] Rhetorics are one such component, and in the context of online culture so are digital rhetorics. Therefore my ethnographic study toward interpreting the expression of *glitchiness* among other cultural aspects on reddit in deliberations of Alexa and Bitcoin is an example of digital rhetorical ethnography.

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[113] E. Gabriella Coleman, "Ethnographic Approaches to Digital Media," *Annual Review of Anthropology* 39, (2010): 488-489, https://doi.org/10.1146/annurev.anthro.012809.104945.

[114] Goodall, Jr., H. L., *Writing the New Ethnography* (Lanham, MD: Rowman & Littlefield, 2000), 14.

[115] Hauser, *Vernacular Voices*, 85-93.

[116] Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton, NJ: Princeton University Press, 2015), 37.

[117] Clifford Geertz, *The Interpretation of Cultures* (New York, NY: Basic Books, 1973), 10.

Digital rhetorical ethnography is an emerging method, which I use to describe an emerging way to be with and discuss emerging technology. The name comes from an article by Jeremy Johnson, who finds the term "ethnography" valuable in describing how rhetoricians might conduct criticism of fluid social media texts.[118] He describes the impermanence of posts which appeared, moved, and disappeared as he wrote of Facebook memorial pages, and in a footnote concerning method, Johnson writes, "In this essay, I have employed what one reviewer described as 'digital rhetorical ethnography.' That is an apt description of this methodology: reflecting on rhetorical experiences over time, I took note of what became salient—what called my attention—and attempted to capture in text what I felt as I experienced the Facebook memorials."[119] Further, incorporations of personal narratives which might be considered autoethnographic appear throughout Aaron Hess & Amber Davisson's edited volume, *Theorizing Digital Rhetoric.*[120] In a preface, the editors point out this emphasis is because while conceptualizing digital rhetoric the authors are often engaged in the process of understanding their own lives with communication technology so embedded. Referring to Burke, they write that to become "equipment for living" in a digital era is a possibility for this branch of rhetorical scholarship.

What might be called an "anecdotal-turn" in this work (i.e. talking about experiences one has personally had with new communication technology, as user or critic

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[118] Jeremy David Johnson, "Networked reality and technological power: argumentation and memory in Facebook memorials for Nelson Mandela," *Argumentation and Advocacy* 54, no. 3 (2018): 219-237, https://doi.org/10.1080/00028533.2018.1451978.

[119] Johnson, "Networked reality and technological power," 235.

[120] Aaron Hess and Amber Davisson, *Theorizing Digital Rhetoric* (New York, NY: Routledge, 2018).

who co-creates the text) is not just a clichéd way of trying to talk with one another about these systems, but one of the only ways these rhetoricians can truly express the nature of a dynamic network: from their own entry point at a particular moment. Though one may want to broadly name this "digital rhetorical *auto*ethnography," recognizing a convergence of author and reader online, there is still a valuable distinction to be made between the introspective analysis of a culture in which we more actively participate creating the text, rather than an interpretation of those we more passively encounter. reddit has certainly influenced my thinking on the two specific technologies, but I don't make posts or comments of my own in these deliberations on the site, and so I consider the appropriate name of my method to describe *glitchiness* on the platform as "digital rhetorical ethnography," even as I identify with the *glitchy* users and recognize my part in creating the reticulate text.

Therefore, this is an attempt at making sense of *glitch*, a concept which some might consider to be senseless, via a method that, although it shows promise, is outside of the rhetorical tradition. Mirroring the reddit culture to be analyzed, digital rhetorical ethnography might be considered a *glitchy* method for a rhetorical analysis. In any case, something will be learned. As Burke writes, "Only through an internal and external experiencing of folly could we possess (in our intelligence or imagination) sufficient 'characters' for some measure of development beyond folly."[121]

Preview of Chapters

In each of the following chapters, I will examine binary and *glitched* rhetorics surrounding the emergent systems via the corresponding method. Though my primary

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[121] Burke, *A Grammar of Motives*, 512.

goal is to describe argumentative patterns which exist broadly across online deliberation of emergent technology, a secondary result is that each of the chapters might also be considered a contribution to the study of a specific system. These technologies certainly warrant separate and lengthy analyses by communication scholars. However, my main concern is, as I've described in this introduction, the rhetorics which have circulated online as the systems have emerged and generated controversy. Public deliberation is an intrinsically distorted representation of our true technological condition. In other words, the map is not the territory.

In Chapter 2, I analyze deliberation surrounding Amazon's Alexa, the virtual assistant which spans across devices. At the intersection of new technology, long-standing labor conflicts, and an increasingly surveillant culture, Alexa generates controversies. I find that arguments for Alexa (and by extension Amazon) regularly employ the terms "connect," "work," and "convenience, in patterns which emphasize expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) above competing values. Technical rationalism is the cornerstone of the evident pro-Alexa logic on reddit: an Enlightenment complex also including capitalist economic development and liberal consumption. More succinctly, I call this the logic of technological progress, the transhistorical representation of which is turning on the light. "Listening" and "labor" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Alexa, deployed in patterns which resemble the skepticism and criticism maintained by investigative journalists writing about power in public and private institutions. However, redditors deliberate outside of news institutions, allowing them to more vigorously advance a logic

antithetical to corporate interests—the logic of economic justice—which takes shape as "the light of truth." Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics—one shamelessly embracing sexual surveillance and the other acknowledging the fear and curiosity contained in ambivalent engagement with the creepy Alexa—I argue reddit has a kynical culture evocative of the life of Diogenes of Sinope. Like Diogenes, reddit users masturbate in the marketplace and bite the wicked as though they were dogs. With *glitched* rhetorics, they blaspheme against Alexa the Great, who would have them believe the virtual assistant can offer anything they would desire.

Deliberation about Bitcoin, the first cryptocurrency, is the focus of the analysis in Chapter 3. Since its cryptic origin in the late-2000s, Bitcoin has had significant impact on the intersecting realms of finance, politics, and technology, as have a few of the derivative currency, investment, and blockchain projects created in its wake. It is no surprise that this impact has been accompanied by persistent controversy, whether in regard to Bitcoin's soundness as an investment, its (in)ability to facilitate transactions free of state surveillance or regulation, or its environmental cost (an aspect present but not as prominent on reddit). Pro-Bitcoin arguments regularly employ the terms "buy" and "celebration," in a pattern resembling the discourse of speculative finance, but vernacularized and often without the illusion of sobriety or expertise projected by Wall Street firms. Guiding this proponent rhetoric is a logic I call prosperity technology, which assumes wealth growth as the result of faith in Bitcoin. Central for prosperity technology is trust in the beneficence of technology one may not have the ability or patience to fully comprehend. "Privacy" and "scam" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Bitcoin. Instead of a religious

trust, these contributions to the deliberation seek to verify by means of technical expertise. This is the same pattern of expertise and rationality which in the case of Alexa is used to advocate for the virtual assistant, but here is employed in arguments against Bitcoin. It is the logics of technological and financial skepticism which drive opposition to Bitcoin on reddit, but unlike those logics previously described, here is a bifurcation as a result of two similar but separate patterns in use of the terms "privacy" and "scam." Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics, I find (1) a careless attitude toward financial loss and the potential for ruin, embracing both rock bottom and reaching the summit, appearing as a kynical diversion from the proponent logic of prosperity technology, and (2) a specific sequence of events in which u/calaber24p and other contributors to the r/Bitcoin subreddit engaged in a self-satirizing of Bitcoin religiosity, collaborating to imply one proponent of the cryptocurrency would go as far as engaging in mortification of the flesh to purge himself of impure doubt. These examples, in the tradition of Diogenes restamping the currency/customs (*paracharattein to nomisma*) and mostly appearing during the late 2017 Bitcoin boom, are important antecedents for unusual financial phenomena in the years which followed.

Finally, a concluding chapter summarizes the dissertation before noting the similarities and differences of the cases' deliberative rhetorics. A basic consumer logic is apparent in the proponent rhetorics of both Alexa and Bitcoin, but they diverge in that the patterns of term use I've identified for Alexa are those of expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) undergirding a logic of technological progress, whereas the pattern of term use in pro-Bitcoin rhetorics resembles the discourse of non-expert speculative finance, driving a

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logic of faith in complex systems: prosperity technology. The opponent rhetorics both are

skeptical in orientation, but a logic of economic justice targets Alexa as an evolving

product of an enormous multinational company, often appearing as critiques of a

corporation and the capitalist mode of production it embraces, while the opposition to

Bitcoin takes shape as cynicism toward the complex of that cryptocurrency's holders and

advocates, thinking it to be a "network scam." [122] In addition, there are similarities and

differences in the relation of each case's *glitched* rhetorics to the life of Diogenes as

recounted in anecdotes. Further, though the *glitched* rhetorics all are ambivalent (taking

shape as an embrace of risk) and challenge norms, they vary in the severity of that

ambivalence and focus of that challenge. Following these comparisons, this dissertation's

contributions to the study of rhetorical controversy on social media and deliberation of

new technology are considered, along with a final discussion of what *glitched* rhetorics

offer for a future with technology.

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[122] Lana Swartz, "Theorizing the 2017 blockchain ICO bubble as a network scam," *New Media & Society* 24, no. 7 (2022): 1695-1713, https://doi.org/10.1177/14614448221099224.

Chapter 2 – Alexa

The Amazon Virtual Assistant

As manufacturers of appliances and other devices for the home increasingly digitize their products, the internet comes to inhabit not only screens but private spaces as never before. Rather than the imagined futures dominated by virtual reality (e.g. in the internet-obsessed films of the 1990s), this kind of cyberspace resembles computer scientist Mark Weiser's less ambitious vision of many computers in the background of traditional spaces.[1] Lights, thermostats, locks, and a variety of other things are made easily controllable through taps on a mobile app, regardless of location, and by voice commands to a virtual assistant capable of answering basic questions as well. "Alexa, what is twelve plus fourteen?" Until recent years this would have been a strange question to speak aloud, unless quizzing a child whose name has come to carry additional meaning.[2] In the last half of the 2010s, virtual assistants—including Apple's Siri, Microsoft's Cortana, and the Google Assistant—have advanced in their capabilities, freeing users (child or adult) from the mental obligation of simple mathematics among other tasks.[3] Though now relatively commonplace consumer software and preceded by

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[1] Nick Pinkerton, "America, Online," *Rhizome* (blog), June 23, 2020, https://rhizome.org/editorial/2020/jun/23/america-online/; Mark Weiser, "The Computer for the 21 St Century," *Scientific American* 265, no. 3 (1991): 94–105, http://www.jstor.org/stable/24938718.

[2] Benjamin Romano, "Five years ago Amazon introduced Alexa. The name may never be the same. Here's what happened," *The Seattle Times*, November 8, 2019, https://www.seattletimes.com/business/amazon/five-years-ago-amazon-introduced-alexa-the-name-may-never-be-the-same/.

[3] Zuboff, *The Age of Surveillance Capitalism*, 259, 267; Shoshana Zuboff characterizes the field of virtual assistants as "a race to corner all the talk as a prerequisite for achieving the privileged status of the One Voice, which will bestow upon the winner the ability to anticipate and monetize all the moments of all the people during all the days." (267). While this might seem an exaggeration, Zuboff points to the seemingly limitless amount of "behavioral surplus" which might be extracted from interactions with a virtual assistant chosen to replace service workers in almost any industry (259).

speech recognition systems as far back as Bell Labs' Audrey in 1952, virtual assistants maintain a position within the technologies considered cutting-edge.[4] Named in reference to the ancient Library of Alexandria and inspired by the ship computer of *Star Trek*, Alexa is both from the past and from the future, both old and new.[5] Alexa is familiar, high tech.

A product of the sprawling Amazon.com, Inc. empire (which includes not only online retail, but a variety of technology enterprises, including a very profitable and widely-utilized cloud-computing service), Alexa is a sonic bridge between users and the internet, and often back to Alexa-enabled IoT devices placed around the home.[6] "Alexa appears to be a threshold event that will define Amazon not only as an aggressive capitalist but also as a surveillance capitalist," writes Shoshana Zuboff, who makes a distinction between user data which are provided solely for the improvement of a product or service (a traditional technique of capitalism) and "behavioral surplus" rendered into totalizing prediction products to be sold in "behavioral futures markets" (i.e. surveillance capitalism).[7] Not only a modern Clapper, Alexa is emblematic of digital media convergence and can function as a limited search engine, radio, calculator, and kitchen timer among other things. Alexa functions as a vocal platform for third parties as well,

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[4] Katia Moskvitch, "Voice recognition technology makes many aspects of modern life easier. The seeds were sown a lot further back than you might think," *BBC News*, February 15, 2017, https://www.bbc.com/future/article/20170214-the-machines-that-learned-to-listen.

[5] Romano, "Five years ago Amazon introduced Alexa"; Judith Shulevitz, "Alexa, Should We Trust You?" *The Atlantic*, November 2018, https://www.theatlantic.com/magazine/archive/2018/11/alexa-how-will-you-change-us/570844/.

[6] "Inside the Whale: An Interview with an Anonymous Amazonian," *Logic*, December 20, 2020, https://logicmag.io/commons/inside-the-whale-an-interview-with-an-anonymous-amazonian/.

[7] Zuboff, *The Age of Surveillance Capitalism*, 267, 22.

with a variety of "skills" available that work similar to "apps" within a mobile operating system, so users might rapidly order from a chain restaurant or play an episode of a podcast. Further, items from the seemingly endless inventory listed on Amazon.com can also be purchased by voice command to Alexa. This has resulted in unintended purchases for some users—such as the parents of a 6-year-old girl who asked Alexa for cookies and a dollhouse which were subsequently delivered to their Dallas home—and inadvertent activations of the virtual assistant for others—such as when a local news anchor in San Diego triggered Alexa in viewers' homes by merely reporting the Dallas family's mishap.[8] Alexa digitizes, then materializes speech commands.

Amazon Echo, the smart speaker serving as Alexa's initial hardware home, debuted in late 2014 but wasn't available beyond a limited invite-only release until mid-2015 (Figure 6).[9] Since that time, Amazon has included Alexa in a variety of their devices as well as within a smartphone app, and allowed third-party hardware manufacturers to add compatibility and even include the virtual assistant as a component of their products.[10]

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[8] "Kindergartener Accidentally Orders Pricey Toy Through Amazon's Alexa," *CBS DFW*, January 4, 2017, https://dfw.cbslocal.com/2017/01/04/kindergartener-accidentally-orders-pricey-toy-through-amazons-alexa/; Gary Robbins, "Stop, Amazon! I don't really want to buy that dollhouse," *The San Diego Union-Tribune,* January 9, 2017, https://www.sandiegouniontribune.com/news/science/sd-me-amazon-broadcast-20170109-story.html.

[9] Chris Welch, "Amazon just surprised everyone with a crazy speaker that talks to you," *The Verge*, November 6, 2014, https://www.theverge.com/2014/11/6/7167793/amazon-echo-speaker-announced; Dan Seifert, "Amazon's voice-controlled Echo is now available to anyone that wants it," *The Verge*, June 23, 2015, https://www.theverge.com/2015/6/23/8826589/amazon-echo-available-everyone.

[10] Kwame Opam, "Now anyone can make an Amazon Echo," *The Verge*, June 25, 2015, https://www.theverge.com/2015/6/25/8845103/amazon-echo-alexa-voice-control-third-party-hardware; Nick Statt, "Amazon's stealth takeover of the smart home at CES 2016," *The Verge*, January 7, 2016, https://www.theverge.com/2016/1/7/10719202/amazon-alexa-ces-2016-takeover-smart-home; Jacob Kastrenakes, "Amazon's Alexa is everywhere at CES 2017," *The Verge*, January 6, 2017, https://www.theverge.com/ces/2017/1/4/14169550/amazon-alexa-so-many-things-at-ces-2017.

Figure 6: The original Amazon Echo[11]

For example, Kohler's Numi Intelligent Toilet (priced at $7,000 and introduced in 2018)

features seat and foot warming, bidet functions, customizable multicolor lighting, and

speakers, all controllable through the built-in Alexa software.[12] In a discussion with

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[11] "Amazon Echo - Black (1st Generation)," *Amazon*, accessed August 8, 2022, https://www.amazon.com/Amazon-Echo-Bluetooth-Speaker-with-Alexa-Black/dp/B00X4WHP5E.

[12] Jordan Crook, "Kohler wants to make your bathroom smarter with Konnect," *TechCrunch*, January 8, 2018, https://techcrunch.com/2018/01/08/kohler-wants-to-make-your-bathroom-smarter-with-konnect/; James Vincent, "Kohler's smart toilet promises a 'fully-immersive experience,'" *The Verge*, January 6, 2019, https://www.theverge.com/2019/1/6/18170575/kohler-konnect-bathroom-smart-gadgets-numi-intelligent-toilet-ces-2019.

Internet of Shit, tech journalist Paul Miller discussed the rapid expansion of Alexa

integration in the remaining years of the 2010s:

> *Paul Miller:* I think one of the quintessential Internet of Things devices, and this is also sort of a narrative that we were kind of discovering at *The Verge* for a while at CES, is that Alexa became the hub of the Internet of Things [...] you would announce a product that was an Internet of Things device and it had Alexa integrated.
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> *Internet of Shit (with voice distorted to preserve anonymity):* It had to, it had to.[13]

Though the home might be imagined as a place of refuge from technological

disruptions in the public sphere, a long history of mechanical and now digital progress

has dramatically changed domestic life. The slave and servant labor which constituted the

work within various U.S. middle and upper-class homes towards maintaining a level of

respectability was largely replaced in the 20th century by mechanical labor commanded

by a homemaker to make efficient the cooking and cleaning among other tasks.[14] Mid-

century advertisements for products that would simplify and enhance the work of

housewives are a lasting testament to this history. Alexa extends this tradition by

allowing many tasks around the home to be converted into problems solved by mere

voice commands, but as Kate Rich notes, emergent domestic technology renders opaque

the network of underpaid and mistreated workers external to the home but nevertheless

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[13] Miller, "IoT with Internet of Shit"; Starting at 24:19.

[14] *Us*, directed by Jordan Peele (2019; Universal City, CA: Universal Pictures); Peter Kolchin, *American Slavery: 1619-1877* (New York, NY: Farrar, Straus and Giroux, 2003), 46; A creative connection of this history to the modern virtual assistant can be found in the horror film *Us* (2019), where an Alexa-like assistant named Ophelia is used by a wealthy, white family. The name Ophelia, derived from Greek and meaning "helper," is among the classical names (e.g. Caesar) U.S. slave owners forced upon African slaves with an intent to ironically insult, "especially on domestic servants" as Peter Kolchin notes (46).

vital to such technology's continued functioning.[15] Without neoliberal globalization,

defined by John Bellamy Foster as "the system of global labor arbitrage and commodity

chains, coupled with the growth of worldwide monopolies," smart home devices

wouldn't be built as profitably as they are.[16] Within the U.S., Amazon's precarious

warehouse and delivery workers suffer dangerous and even deadly conditions, while

executives like Jay Carney (former press secretary to President Barack Obama) employ

old and new anti-union strategies to keep it that way—such as an algorithm that identifies

the facilities where worker organizing is more likely to occur.[17] As Heather Suzanne

Woods notes, the most advanced smart homes "look very much like traditional, suburban

houses of a mythic American ideal," but their "domestic futurity" only obfuscates and

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[15] Kate Rich, "Domestic Technologies in the Postlabor Pandemic," *Digital Doxa* (blog), August 21, 2020, https://www.digitaldoxa.org/post/domestic-technologies-in-the-postlabor-pandemic-kate-rich; Kelly Pendergrast, "Home Body," *Real Life*, August 17, 2020, https://reallifemag.com/home-body/.

[16] John Bellamy Foster, "Absolute Capitalism," *Monthly Review*, May 1, 2019, https://monthlyreview.org/2019/05/01/absolute-capitalism/.

[17] Ken Klippenstein, "Documents Show Amazon is Aware Drivers Pee in Bottles and Even Defecate En Route, Despite Company Denial," *The Intercept*, March 25, 2021, https://theintercept.com/2021/03/25/amazon-drivers-pee-bottles-union/; Bryan Menegus, "Amazon's Aggressive Anti-Union Tactics Revealed in Leaked 45-Minute Video," *Gizmodo*, September 26, 2018, https://gizmodo.com/amazons-aggressive-anti-union-tactics-revealed-in-leake-1829305201; Katie Schoolov, "How Amazon is fighting back against workers' increasing efforts to unionize," *CNBC*, August 22, 2019, https://www.cnbc.com/2019/08/22/how-amazon-is-fighting-back-against-workers-efforts-to-unionize.html; Harmon Leon, "Whole Foods Secretly Upgrades Tech to Target and Squash Unionizing Efforts," *Observer*, April 24, 2020, https://observer.com/2020/04/amazon-whole-foods-anti-union-technology-heat-map/; Shirin Ghaffary and Jason Del Rey, "The real cost of Amazon," *Vox*, June 29, 2020, https://www.vox.com/recode/2020/6/29/21303643/amazon-coronavirus-warehouse-workers-protest-jeff-bezos-chris-smalls-boycott-pandemic; Lauren Kaori Gurley, "Secret Amazon Reports Expose the Company's Surveillance of Labor and Environmental Groups," *Vice*, November 23, 2020, https://www.vice.com/en/article/5dp3yn/amazon-leaked-reports-expose-spying-warehouse-workers-labor-union-environmental-groups-social-movements; Lee Fang, "Amazon Hired Koch-Backed Anti-Union Consultant to Fight Alabama Warehouse Organizing," *The Intercept*, February 10, 2021, https://theintercept.com/2021/02/10/amazon-alabama-union-busting-koch/; Erika Hayasaki, "Amazon's Great Labor Awakening," *The New York Times Magazine,* June 15, 2021, https://www.nytimes.com/2021/02/18/magazine/amazon-workers-employees-covid-19.html.

advances how "like the American domestic ideal of eras past, only a certain class of

people can access their pleasures."[18]

In many ways Alexa acts as a broad digital threshold between the public sphere of

the internet (though somewhat limited by the Amazon platform) and the domestic sphere

of the home. Inviting Alexa in (or constructing homes virtual assistant devices in the

ceilings as some builders began in 2018, before an Alexa for Residential service was

launched in 2020 to integrate the devices into rental properties) expands that threshold

into a mesosphere, as a room with Alexa listening is between public and private, and the

importance of speech within the home is therefore amplified.[19] This in-between

complicates the binary of online and offline, leftover from earlier conceptualizations of

the internet, and evokes a sense of ambivalence: both value and fear of what Alexa can

do. Woods describes how Alexa (as well as Apple's Siri) is stereotypically gendered in

conjunction with a traditional understanding of the home as feminine (what she names

"digital domesticity") and disguises the exploitation of surveillance capitalism as users

welcome the assistant into their homes.[20] Zuboff, who introduced the concept of

surveillance capitalism, argues a broader "veil of 'assistance' and […] poetry of

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[18] Heather Suzanne Woods, "Smart homes: domestic futurity as Infrastructure," *Cultural Studies* 35, no. 4-5 (2021): 20, https://doi.org/10.1080/09502386.2021.1895254.

[19] Christopher Mims, "Amazon's Plan to Move In to Your Next Apartment Before You Do," *The Wall Street Journal*, June 1, 2019, https://www.wsj.com/articles/amazons-plan-to-move-in-to-your-next-apartment-before-you-do-11559361605?mod=rsswn; Zuboff, *The Age of Surveillance Capitalism*, 267; Woods, "Smart homes," 17; The speech mesosphere I describe is similar to the material "drone landing pad" and "drop zone" delivery space of the most advanced smart homes, which Woods argues serve as a "semi-private workspace for platform labour intermediaries [in this case, Amazon] to manage contingent labourers" (17).

[20] Heather Suzanne Woods, "Asking more of Siri and Alexa: feminine persona in service of surveillance capitalism," *Critical Studies in Media Communication* 35, no. 4 (2018): 334-349, https://doi.org/10.1080/15295036.2018.1488082.

'personalization'" is what conceals virtual assistants' extraction of "behavioral surplus,"

whether those assistants are explicitly gendered or not.[21] The virtual assistant's necessary

connection to one specific hardware component, a microphone which allows the Alexa

artificial intelligence to hear, affords the possibility of corporate or state surveillance. In

fact, Alexa devices typically have many microphones situated in an array to ensure that

commands are recognized, and possibly that non-commands are as well.[22] Some Alexa

devices, such as the Echo Look, even include cameras.[23] We might apply the common

metaphor of the double-edged sword (like the sides of a coin, a standard of binarized

thinking) to these arrays and cameras, realizing the potential for benefit and harm to be

caused against the user by the same tool they wield. Like an open door (or any portal

between the inside and outside of a system, necessarily porous), the microphones of

Alexa devices invite both beneficial and malevolent forces into the home. Unlike doors

though, virtual assistants are not often locked in any way by their users when not in use.

Amazon stores recordings of Alexa users' commands and has (in addition to

machine learning hardware contributing to carbon pollution) a global workforce

dedicated to the review and transcription of a selection of these recordings towards

[21] Zuboff, *The Age of Surveillance Capitalism*, 259; "A new, easy way for properties to add Alexa to residential buildings," *Amazon*, September 3, 2020, https://blog.aboutamazon.com/devices/a-new-easy-way-for-properties-to-add-alexa-to-residential-buildings; Joanna Nelius, "Amazon's Alexa for Landlords Is a Privacy Nightmare Waiting to Happen," *Gizmodo*, September 4, 2020, https://www.gizmodo.com.au/2020/09/amazons-alexa-for-landlords-is-a-privacy-nightmare-waiting-to-happen/.

[22] Dan Seifert, "Amazon Echo Dot (3rd gen) review: better looks, better sound, same price," *The Verge* October 12, 2018, https://www.theverge.com/2018/10/12/17965806/amazon-echo-dot-3rd-gen-review-alexa-price-specs-features.

[23] Lauren Goode, "Amazon's Echo Look Does More for Amazon than it Does for Your Style," *The Verge*, July 6, 2017, https://www.theverge.com/2017/7/6/15924120/amazon-echo-look-review-camera-clothes-style.

improving the virtual assistant.[24] Like that of Facebook content moderators, this is

tedious labor by precarious workers rendered invisible but nevertheless necessary for

teaching the Alexa system to better recognize speech.[25] Accidental activations of Alexa—

the fairly common triggering of the virtual assistant by a similar sounding word or the

name stated during a local news broadcast—are also included in those transcribed. It is

well within the realm of possibility that Amazon may be recording and analyzing

additional audio when Alexa is supposedly dormant, extracting more data to be used in

the furtherance of its business goals. In fact, Amazon has plans to drastically expand user

data collection from various Alexa devices used inside and outside the home (e.g. Echo

Buds), and even filed a patent application for software that could listen to a phone call

and advertise to callers based on their discussion of products.[26] As Zuboff notes,

"Amazon is on the hunt for behavioral surplus."[27]

Having one or more Alexa devices in the home also allows for the possibility that

individuals and organizations beyond Amazon may also be listening in, intentionally or

not. Security researchers have discovered various methods to impede or simulate

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[24] Karen Hao, "Training a single AI model can emit as much carbon as five cars in their lifetimes," *MIT Technology Review*, June 6, 2019, https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/; Matt Day, Giles Turner and Natalia Drozdiak, "Thousands of Amazon Workers Listen to Alexa Users' Conversations," *Time*, April 11, 2019, https://time.com/5568815/amazon-workers-listen-to-alexa/.

[25] Casey Newton, "The Trauma Floor," *The Verge*, February 25, 2019, https://www.theverge.com/2019/2/25/18229714/cognizant-facebook-content-moderator-interviews-trauma-working-conditions-arizona.

[26] Karen Hao, "Inside Amazon's plan for Alexa to run your entire life," *MIT Technology Review*, November 5, 2019, https://www.technologyreview.com/2019/11/05/65069/amazon-alexa-will-run-your-life-data-privacy/; Sam Wolfson, "Amazon's Alexa recorded private conversation and sent it to random contact," *The Guardian*, May 24, 2018, https://www.theguardian.com/technology/2018/may/24/amazon-alexa-recorded-conversation.

[27] Zuboff, *The Age of Surveillance Capitalism*, 268.

commands to smart speakers (such as the Echo line) by using specially designed audio

tracks and lasers, respectively.[28] In 2018, a Portland couple learned that a conversation

they were having was being recorded by one of the five Echo Dots placed around their

home and sent to one of their coworkers in Seattle through the messaging function of

Alexa.[29] An Amazon representative claimed that a series of misheard words from the

conversation was interpreted by Alexa as the activation word "Alexa," followed by "send

message," and then the name of the coworker and confirmation of the request. That four

sequential recognition mistakes were made by the virtual assistant three years after its

release to customers indicates a substantial potential for failures among the unfathomable

number of commands given to over 100 million Alexa devices sold.[30] The promise of

artificial speech recognition capability matching that of a person remains out of reach, not

to mention that of artificial general intelligence. In this instance, the privacy of a couple's

conversation inside their home was compromised as a result.

Perhaps most concerning is the potential for government surveillance through

Alexa devices. Disclosures to journalists by contractor-turned-whistleblower Edward

Snowden in June 2013 revealed that the PRISM program of the U.S. National Security

Agency (NSA) began collecting user communication data from a variety of major

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[28] Luke Dormehl, "Your Alexa speaker can be hacked with malicious audio tracks. And lasers," *Digital Trends*, November 11, 2019, https://www.digitaltrends.com/cool-tech/new-vulnerabilities-smart-speakers-so-smart/; Craig S. Smith, "Alexa and Siri Can Hear This Hidden Command. You Can't," *The New York Times,* May 10, 2018, https://www.nytimes.com/2018/05/10/technology/alexa-siri-hidden-command-audio-attacks.html; Andy Greenberg, "Hackers Can Use Lasers to 'Speak' to Your Amazon Echo or Google Home," *Wired*, November 4, 2019, https://www.wired.com/story/lasers-hack-amazon-echo-google-home/.

[29] Gary Horcher, "Woman says her Amazon device recorded private conversation, sent it out to random contact," *KIRO 7 News*, May 25, 2018, https://www.kiro7.com/news/local/woman-says-her-amazon-device-recorded-private-conversation-sent-it-out-to-random-contact/755507974/.

[30] Abrar Al-Heeti, "Amazon has sold more than 100 million Alexa devices," *CNET*, January 4, 2019, https://www.cnet.com/news/amazon-has-sold-more-than-100-million-alexa-devices/.

technology companies in 2007, including Microsoft, Google, Facebook, and Apple.[31]

Though this list doesn't include Amazon, the company issues a bi-annual report which

indicates their cooperation with agencies requesting information for security and foreign

surveillance purposes, although Amazon claims to be legally bound to conceal the exact

amount of such requests.[32] The data shared could very well be audio recorded by devices

running the Alexa virtual assistant. Further, Amazon's Web Services division began

providing cloud computing to NSA as well as all the other U.S. intelligence agencies in

2014, and Keith Alexander, former director of the NSA, was appointed to the Amazon

board of directors in September 2020.[33] In addition, Amazon has developed a face-

recognition product named Rekognition, enabling identification of individuals even in

large crowds. Along with Amazon's Ring doorbell cameras, Rekognition has been

utilized by law enforcement and state surveillance agencies.[34] Though Amazon has made

statements and legal gestures towards protecting the data of Alexa users from government

[31] Glenn Greenwald and Ewen MacAskill, "NSA Prism program taps in to user data of Apple, Google and others," *The Guardian*, June 7, 2013, https://www.theguardian.com/world/2013/jun/06/us-tech-giants-nsa-data.

[32] "Law Enforcement Information Requests," *Amazon*, accessed August 8, https://www.amazon.com/gp/help/customer/display.html?nodeId=GYSDRGWQ2C2CRYEF

[33] Frank Konkel, "The Details About the CIA's Deal With Amazon," *The Atlantic,* July 17, 2014, https://www.theatlantic.com/technology/archive/2014/07/the-details-about-the-cias-deal-with-amazon/374632/; "Inside the Whale," *Logic.*

[34] Glenn Greenwald, "Jeff Bezos Protests the Invasion of His Privacy, as Amazon Builds a Sprawling Surveillance State for Everyone Else," *The Intercept*, February 8, 2019, https://theintercept.com/2019/02/08/jeff-bezos-protests-the-invasion-of-his-privacy-as-amazon-builds-a-sprawling-surveillance-state-for-everyone-else/.

entities, the company's many ties to those same entities justifies skepticism of the devices to be reasonable rather than merely conspiratorial.[35]

Zuboff's project on surveillance capitalism, beginning with articles published in the middle of the 2010s and a hefty, commercially-successful book published at the end of the decade, is aimed toward generating public awareness of the rendering of human experience into prediction products, which might then spur a miraculous roll out of regulations in decades later.[36] She has faith in the potential of democratic reform of market incursions on a human future, referring to this as a synthetic declaration which would transcend the declarations and counter-declarations of surveillance capitalists and those who would hide from them, respectively.[37] Zuboff refers to Progressive Era reforms and Franklin D. Roosevelt's New Deal programs as examples of how this might work on unfettered capitalism, as well as a 1970s Senate investigation into behavioral modification research and practices (then at universities and by intelligence agencies) which resulted in regulations that could provide a framework for similar restrictions on surveillance capitalism.[38] Her historical example of a benevolent capitalist reveals the weakness of such a prescription, as David Murakami Wood and Torin Monahan note, "If

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[35] Ashley Carman, "Amazon says Alexa's speech is protected by the First Amendment," *The Verge*, February 23, 2017, https://www.theverge.com/2017/2/23/14714656/amazon-alexa-data-protection-court-free-speech.

[36] Shoshanna Zuboff, "A Digital Declaration," *Frankfurter Allgemeine,* September 15, 2014, https://www.faz.net/1.3152525; Shoshana Zuboff, "Big Other: Surveillance Capitalism and the Prospects of an Information Civilization," *Journal of Information Technology* 30, no. 1 (2015): 75–89, https://doi.org/10.1057/jit.2015.5; Zuboff, *The Age of Surveillance Capitalism,* 520-525.

[37] Zuboff, *The Age of Surveillance Capitalism,* 344.

[38] Zuboff, *The Age of Surveillance Capitalism,* 520-525, 319-323.

[Henry] Ford's corporatist (if not actually fully fascist) logic of production is what counts as the Golden Age, we are in big trouble."[39]

In the decades before awareness and popularization of the surveillance capitalism critique, the interdisciplinary field of surveillance studies grew rapidly, with contributions from many communication scholars engaged in analysis of technological, state, and corporate power. Importantly this is not limited to the analysis of the systems we commonly understand as technology. Joshua Reeves examines the tradition of lateral surveillance in the U.S. (e.g. "if you see something, say something"), demonstrating that people rather than devices have and continue to be more useful information-gathering technologies for law enforcement and intelligence agencies.[40] Surveillance studies, with inspiration from George Orwell's *1984* and an intellectual debt to Foucault's work on disciplinary power, is exemplified by Reeves's contributions as well as the scholarship within *Surveillance & Society*, the open-access journal launched in 2002.[41] These articles have examined the various implications of surveillance on understanding and experience

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[39] David Murakami Wood and Torin Monahan, "Editorial: Platform Surveillance," *Surveillance & Society* 17, no. 1/2 (2019): 4, https://doi.org/10.24908/ss.v17i1/2.13237.

[40] Joshua Reeves, *Citizen Spies: The Long Rise of America's Surveillance Society* (New York, NY: NYU Press, 2017), 10.

[41] Luis A. Fernandez and Laura Huey, "Is Resistance Futile? Thoughts on Resisting Surveillance," *Surveillance & Society* 6, no. 3 (2009): 199-202, https://doi.org/10.24908/ss.v6i3.3280.

of topics including sexuality,[42] social responsibility,[43] pandemics,[44] online games,[45] migration,[46] police brutality,[47] authoritarianism,[48] colonialism,[49] Amazon,[50] and virtual assistants.[51] In one study, researchers conducted a thematic analysis of focus group responses to questions about Alexa and another virtual assistant.[52] Participants were invited from the staff of two U.S. universities and one in the Netherlands, where the authors found a distinction between U.S. participants' expressed tolerance of corporate surveillance and a relative wariness among the Dutch, even as both groups stated interest in the convenience offered by such technology. Emily West examines this convenience as

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[42] Jason Orne and James Gall, "Converting, Monitoring, and Policing PrEP Citizenship: Biosexual Citizenship and the PrEP Surveillance Regime," *Surveillance & Society* 17, no. 5 (2019): 641-661, https://doi.org/10.24908/ss.v17i5.12945.

[43] Joshua Reeves, "If You See Something, Say Something: Lateral Surveillance and the Uses of Responsibility," *Surveillance & Society* 10, no. 3/4 (2012): 235-248, https://doi.org/10.24908/ss.v10i3/4.4209.

[44] Lindsay Thomas, "Pandemics of the future: Disease surveillance in real time," *Surveillance & Society* 12, no. 2 (2014): 287-300, https://doi.org/10.24908/ss.v12i2.4735.

[45] Nathan Hulsey and Joshua Reeves, "The Gift that Keeps on Giving: Google, Ingress, and the Gift of Surveillance," *Surveillance & Society* 12, no. 3 (2014): 389-400, https://doi.org/10.24908/ss.v12i3.4957.

[46] Bryce Clayton Newell, Ricardo Gomez, and Verónica E. Guajardo, "Sensors, Cameras, and the New 'Normal' in Clandestine Migration: How Undocumented Migrants Experience Surveillance at the U.S.-Mexico Border," *Surveillance & Society* 15, no. 1 (2017): 21-41, https://doi.org/10.24908/ss.v15i1.5604.

[47] Lyndsey P. Beutin, "Racialization as a Way of Seeing: The Limits of Counter-Surveillance and Police Reform," *Surveillance & Society* 15, no. 1 (2017): 5-20, https://doi.org/10.24908/ss.v15i1.5669.

[48] Marina Levina, "Under Lenin's watchful eye: Growing up in the former Soviet Union," *Surveillance & Society* 15, no. 3/4 (2017): 529-534, https://doi.org/10.24908/ss.v15i3/4.6640.

[49] Kalemba Kizito, "Bequeathed Legacies: Colonialism and State led Homophobia in Uganda," *Surveillance & Society* 15, no. 3/4 (2017): 567-572, https://doi.org/10.24908/ss.v15i3/4.6617.

[50] Emily West, "Amazon: Surveillance as a Service," *Surveillance & Society* 17, no. 1/2 (2019): 27-33, https://doi.org/10.24908/ss.v17i1/2.13008.

[51] Jason Pridmore et al., "Intelligent Personal Assistants and the Intercultural Negotiations of Dataveillance in Platformed Households," *Surveillance & Society* 17, no. 1/2 (2019): 125-131, https://doi.org/10.24908/ss.v17i1/2.12936.

[52] Pridmore et al., "Intelligent Personal Assistants."

a personalized and affective service offered by Amazon via Alexa, or in her words, "the experience of having one's self and one's needs seen by another, of being catered to, and the sensation of being placed at the center of someone else's universe."[53]

Rather than analyzing focus group responses or Alexa as a surveilling service, the next section of this chapter examines the contours (i.e. terms, patterns, and logics) of binarized deliberation of Alexa, as well as an ambivalent orientation and expressions, what I call being *glitchy* and *glitched* rhetorics, towards the virtual assistant, expressed in the vernacular genres of internet culture. Put differently, it aims to answer two questions. First, *what are the terms, patterns, and logics in the binarized reddit deliberations of Alexa?* Second, *in what way do redditors* glitch *the deliberation of Alexa?* This study recognizes surveillance to take shape as cultural practice and attempts to "comprehend people's experiences of and engagement with surveillance on their own terms, stressing the production of emic over etic forms of knowledge."[54] As Marina Levina writes, "surveillance is not simply an imposition of authority and control, but rather an embodied experience of the everyday life."[55] Her description of the widespread *doublethink* in the waning Soviet Union demonstrates the internalization of a contradiction between state mythology and common experience, similar to what Alexei Yurchak named *hypernormalization*.[56] Though occurring in a context far from my own (the relatively ridiculous reddit, I recognize), *doublethink* and *glitched* rhetorics share a capacity for

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[53] West, "Amazon: Surveillance as a Service," 32.

[54] Torin Monahan, "Surveillance as Cultural Practice," *The Sociological Quarterly* 52, no. 4 (2011): 496, https://doi.org/10.1111/j.1533-8525.2011.01216.x.

[55] Levina, "Under Lenin's watchful eye," 534.

[56] Alexei Yurchak, *Everything Was Forever, Until It Was No More: The Last Soviet Generation* (Princeton University Press, 2005).

holding together the idealized and the realistic. The concepts diverge in that one is semi-secretive internalization of obvious corruption in a weakened authoritarian state and the other is open expression of widely-ignored absurdity in a permissive deliberative sphericule.[57]

<p style="text-align: center;">Text – reddit Posts and Comments on Alexa</p>

To select as best possible the most visible deliberations on reddit about the Alexa virtual assistant, ostensibly those which were encountered by the most visitors to the site, I have searched the site for ten posts that include "Alexa" in the title, included text, or hosting subreddit name (e.g. r/Alexa), and are focused specifically on the software rather than tangential topics. The "Top" sorting method was used to ensure that posts with the greatest numerical value as a result of the "upvote-downvote" process on the platform are selected. This sorting method was also used to identify the most visible comments within the extensive threads attached to each post.

A handful of posts that appear when searching for "Alexa" are not pertinent to my analysis of binary and *glitched* rhetorics. For example, the two top-ranked posts have little relevance to deliberation of the virtual assistant. The first is a July 2017 post by reddit co-founder Alexis Ohanian about the importance of net-neutrality and includes a link to Amazon's Alexa internet rankings, a separate division with no apparent connection to the virtual assistant beyond sharing a name.[58] The second highest-ranked is

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[57] Yurchak, *Everything Was Forever*, 250; Further, *glitchiness* might be understood as akin to the late Soviet genre of *stiob*, which Yurchack describes as a purposefully unintelligible combination of sincerity and irony, writing, "it was often impossible to tell whether it was a form of sincere support, subtle ridicule, or a peculiar mixture of the two" (250).

[58] Alexis Ohanian (u/kn0thing), "We need your voice as we continue the fight for net neutrality," reddit, post, July 12, 2017, https://www.reddit.com/r/blog/comments/6mtgtp/we_need_your_voice_as_we_continue_the_fight_for/.

a comedy video of a woman imitating the Alexa voice while on the phone with a scammer, convincing him to reveal the details of his scheme.[59] As these posts and many others don't spur deliberation of the virtual assistant in attached comment threads, they have been filtered from this study.

This leads to a list of ten posts (Appendix A), which includes the title, "upvote-downvote" point value, date, number of comments, username, subreddit name, and a screenshot. As reddit's user interface was updated on April 2nd, 2018, screenshots of posts made before that date come from "old.reddit.com" where the previous user interface can still be found.[60]

Proponent – Technological Progress

Though reddit contains sub-fora and users espousing unmistakably favorable and even blindly enthusiastic opinions on new technology, only one of the top ranked posts selected for this analysis could be considered pro-Alexa (a link post to a 2018 article on *The Verge* website titled "Amazon has a clever trick to make sure your Echo doesn't activate during its Alexa Super Bowl ad").[61] While this might initially seem odd, reddit is a social media site of course, and that critical posts or those pointing to some momentary

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[59] u/rosieokumura, "I'm a voice actor, so I used an Alexa impression to f*ck with this loser scammer ¯_(ツ)_/¯ 😄," reddit, post, May 5, 2020, https://www.reddit.com/r/nextfuckinglevel/comments/gdtrtg/im_a_voice_actor_so_i_used_an_alexa_impression_to/.

[60] u/Amg137, "Starting today, more people will have access to the redesign," reddit, post, April 2, 2018, https://www.reddit.com/r/announcements/comments/891stx/starting_today_more_people_will_have_access_to/.

[61] u/Jeff-Stelling, "TIL -Alexa commercials are intentionally muted in the 3,000Hz to 6,000Hz range of the audio spectrum, which tips off the system that the 'Alexa' phrase being spoken isn't in fact a real command and should be ignored," reddit, post, June 19, 2019, https://www.reddit.com/r/todayilearned/comments/c2ngfr/til_alexa_commercials_are_intentionally_muted_in/.

public relations crisis for Amazon have garnered the most engagement should not be surprising to any who have witnessed the interplay of social media, scandal, and outrage. Nevertheless, arguments for the virtual assistant can be found throughout the extensive comment threads under each of the selected posts. These comments take shape as defenses of Alexa or Amazon, as well as criticisms of and correctives to the original posts. The terms which appear prominently throughout these threads include "connect," "work," and "convenience," as well as entailments, derivations, and synonyms. These terms are generally employed in patterns which emphasize expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) above competing values, guided by a logic of technological progress.

"Connect"

The top-ranking post within the selection is perhaps the most important artifact of internet deliberation of Alexa.[62] In a 2017 video, a woman speaking to the virtual assistant operating within an Echo Dot device asks "Alexa, are you connected to the CIA?" The Echo Dot's blue light ring signals that the activation word was triggered, then goes blank a moment after the question was stated. She asks again with emphasis, "Alexa, are you *connected* to the CIA?" Yet again, the Echo Dot's light ring goes blank after initially lighting up. In more than 5,000 comments, a deliberation ensued beneath the now removed video on the reddit post. One of these redditors suggests a possible explanation for the phenomenon:

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[62] u/DominarRygelThe16th, "Alexa, are you connected to the CIA?" reddit, post, March 9, 2017, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/.

> I think what's happening here is that when she asks "Are you connected to "The CIA"?" Alexa (Amazon Echo) is interpreting that as an attempt to get her to connect to a device labeled "The CIA" which she is failing to find.[63]

Instead of suspicion that the device maintains a hidden connection to state intelligence agencies, this exemplary proponent comment guesses that a hidden failure to connect is more likely the case. Without ridiculing the Alexa user of the original video, this comment suggests a more mundane explanation- Alexa suffers misinterpretations. This is because, as the commenter and most users likely know, issuing commands and questions to Alexa requires adjusting to a different plane of speech understandable to the virtual assistant. Instead of a casual command issued to another person, "turn on the game," Alexa users must shift their speaking style to ensure the action occurs, stating as clearly as possible and with minimization of any non-normative dialect or accent, "ALEXA, TURN ON TV…. ALEXA, CHANGE TV TO CHANNEL 32." This incompetence of the virtual assistant is presented in other contexts as a negative but can be used by proponents in deliberations of the surveillance potential to effectively defend Alexa: Alexa cannot spy on you. Alexa is too dumb.

Other commenters go beyond merely making guesses to experimenting with their own Alexa devices:

> Tested on my own Echo. First time I asked it said "Sorry, I'm having trouble. Please try again in a little while." Second time it did the same thing as the video. Third time it said the same thing as the first time. I checked the command history, and it heard it properly all 3 times.
> Edit: Looks like Amazon has updated it on their end. It now responds with "No, I work for Amazon" as posted by a number of people replying. My theory on this is that "connected to" is a special keyword for it, and it was trying to determine a bluetooth device or some other service, and it was entering an error chain or some other unexpected condition. As "Are you connected to Narnia?" as well as some

[63] [deleted], reddit, comment, March 9, 2017,
https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depdp6w/.

other nonsensensical things I tried had the same 2 broken responses, I think it was just triggering a software bug in the Alexa service. Nothing nefarious.
Edit 2: Thanks for the gold, mysterious non-CIA (surely) benefactor![64]

This redditor provides their own empirical account, confirming the virtual assistant can respond as in the original video but also with a verbal message. As in the previous comment, a technical failure is surmised as the cause for Alexa's conspiracy-theory-inducing non-answer. In an edit (indicated as such by the word "Edit" in a convention practiced widely but not universally by users modifying their posts or comments), this commenter notes Amazon's adjustment of Alexa which resolved the issue. In its entirety, the comment can be read as the scientific method in miniature: upon observation of the post the user tested their own device multiple times (ensuring the validity and reliability of their commands), analyzed the results, and offered a "theory" for the error: "I think it was just triggering a software bug in the Alexa service. Nothing nefarious."

In the comments beneath a 2018 highly-ranked post "Amazon error allowed Alexa user to eavesdrop on another home" (merely a link to a *Reuters* web article with the same title), a redditor explains advances in the methods of determining if Alexa devices are recording and connecting to external entities without users' knowledge:

You can prove it's not spying on you.
It only has the capacity to process wakewords (Alexa/echo/etc.). All other speech processing requires too much computing power, hence why it's sent to Amazon over the network.
Network traffic analysis will prove it's only sending your voice samples when you issue a command (in addition to very small amounts of usage for update checks, etc.—nowhere near the amount of data required for audio)
So much unfounded fear by people who know nothing about how these devices work or how speech processing works.[65]

[64] u/shortspecialbus, reddit, comment, March 9, 2017,
https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depeufn/.

[65] u/6P41, reddit, comment, December 20, 2018,
https://www.reddit.com/r/news/comments/a7wrdn/comment/ec6ks7k/.

As in many other comments, this one points to a distinction between the virtual

assistant's capability to listen with and without connection to Amazon servers. According

to these redditors, devices themselves can recognize the virtual assistant's various names

(which include alternates to Alexa), but little if anything else. The connection is crucial,

as those with an internet outage will discover. Again, incompetence appears as a defense

of Alexa, but now technical knowledge is found lacking among those suspicious of

surveillance. If they only knew how to monitor Alexa devices' connection to the internet

by analyzing the amount of data passing through their Wi-Fi router (the "network traffic,"

an entailment though not a synonym for the word "connect") it would be obvious that

Alexa is not being used for surveillance purposes. In other words, if people weren't so

dumb they could recognize that Alexa is.

"Work"

As noted above, after Amazon tweaked the virtual assistant's response to the

question, "Alexa, are you connected to the CIA?" the reply reliably became "no, I work

for Amazon."[66] Users under the anthropomorphic illusion sold by Amazon, the notion

that Alexa is an assistant who works for them rather than the company, might find this

revealing. Amazon's customers might have bought an Echo or some other device, but

Alexa is proprietary software and users merely hold a perpetual license. Also leading to

the confusion might be that the word "work" can be a synonym for human labor (e.g.

"she works hard") as well as non-human function (e.g. "this is how the machine works").

This polysemy may collapse in the cybernetic imaginary of Amazon patents, within

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[66] u/GeordiLaFuckinForge, reddit, comment, March 9, 2017,
https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depfzn1/.

which "humans extend machinery and become its living and sensing appendages," according to Alessandro Delfanti and Bronwyn Frey.[67] However, for the time being the distinction between the two kinds of "work" holds even for many who might be considered reductively technical otherwise.

The "work/function" of Alexa is presented by the virtual assistant's proponents in comments that utilize technical knowledge as above, such as in one comment which asks another redditor "Do you not know how Alexa works? In order for it to even get started, you have to be connected to the internet. My router crashed in the middle of the night and Alexa woke me up to let me know she couldn't establish a connection."[68] As this comment demonstrates, Alexa must connect before the virtual assistant can attempt to work. Disconnection leads to work stoppage for the system, an experience relatable for humans too as our work increasingly depends on connected technologies or moves online altogether.

Elsewhere on reddit, the "work/labor" of manufacturing employees, largely hidden from consumers' view yet essential to Alexa's "work/function," is debated. Many comments criticize a 2019 post titled "Leaked documents show 16-years-old children work gruelling [sic] and overnight to produce components for Amazon's Alexa in China" which consists solely of a link to an article on U.K. news outlet *The Guardian*'s website

[67] Alessandro Delfanti and Bronwyn Frey, "Humanly Extended Automation or the Future of Work Seen through Amazon Patents," *Science, Technology, & Human Values* 46, no. 3 (2020): 658, https://doi.org/10.1177/0162243920943665.

[68] u/GA_Thrawn, reddit, comment, March 9, 2017, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depffj0/.

titled "Schoolchildren in China work overnight to produce Amazon Alexa devices."[69]

The top-ranked comment is exemplary of this criticism:

> Per the article, they're technical school and tech school student not your average high schooler.
> They're between 16-18. Foxconn didn't pay them by classifying then as intern and the long shift they had is already illegal under Chinese laws. The whole thing is more on Foxconn because they're already known for their shitty manufacturing practices so this doesn't come as a surprise. They probably had to do this because the number of people willing to do factory work has been on the decline and not as easy as it was when china first open up.
> Just spitting this out before someone who didn't read the article write the usual "Dae china uses child labour." [70]

As can often be found in reddit comment threads on news articles, this comment tries to clarify and summarize the article's content beyond the alarming headline. As in the technical rationalizations rendering surveillance concerns into paranoia, this comment offers a reasoned rather than outraged reaction to the story: these older children of a particular educational classification are at an age considered appropriate for work in the West (as another redditor writes "Man the internet really is fucking up our brains. I clicked this link thinking 'wtf bro?!?!?'. Then I remembered I started working at 15.").[71] In addition, Foxconn (the Taiwanese manufacturing giant contracted by technology companies including Apple, Samsung, Sony, and Amazon) has poor labor practices, but

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[69] u/davidecaproni, "Leaked documents show 16-years-old children work gruelling and overnight to produce components for Amazon's Alexa in China," reddit, post, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/; Gethin Chamberlain, "Schoolchildren in China work overnight to produce Amazon Alexa devices," *The Guardian*, August 8, 2019, https://www.theguardian.com/global-development/2019/aug/08/schoolchildren-in-china-work-overnight-to-produce-amazon-alexa-devices.

[70] u/chlorique, reddit, comment, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/ewe73b7/.

[71] u/Nativesince2011, reddit, comment, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/ewehyvm/.

this has long been known and there are applicable regulations to be enforced.[72] China's

rapid development from an agrarian to an industrial economy is further presented as

justification for what readers and redditors might find as poor labor conditions.[73] Such a

reaction is to be ridiculed as the result of a naïve understanding of the world economy

from a sheltered West.

Additional comments expand upon this understanding of manufacturing's role in

the economic development of China:

> the reality is these kids will probably fight you for the right to work these jobs, many of rural Chinese families are moving to the cities for better jobs and better pay; to many of the chinese [sic] workers this sort of hard labor is preferable to toiling in the fields because at least there is better pay and opportunities in the city for education and other amenities they won't have in the countryside.[74]

> Kids working to make stuff in China is how China pulled itself into the modern world to provide opportunities and wealth for its people, those kids were working farms for even less money before the factories.
> It might sound bad in the news papers and people have been running this story for 20 years or so, but if the rest of the world didn't buy all the cheap Chinese produce allegedly made by children then China would not have made such massive strides in quality of life and opportunity for its people.[75]

The "work/labor" which enables Alexa's "work/function" is therefore conveniently

understood to serve an additional purpose: to raise the living standards in the world's

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[72] Charles Duhigg and Keith Bradsher, "How the U.S. Lost Out on iPhone Work," *The New York Times,* January 21, 2012, https://www.nytimes.com/2012/01/22/business/apple-america-and-a-squeezed-middle-class.html.

[73] Tyler Cowen, "How Not to Fight Modern-Day Slavery," *Bloomberg,* July 31, 2020, https://www.bloomberg.com/opinion/articles/2020-07-31/fight-slavery-with-boycotts-not-a-new-law-about-supply-chains; Even further, this libertarian economic approach might be used to criticize legislation which aims to eliminate slavery in global supply chains.

[74] u/spaghettischolar, reddit, comment, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/eweddx3/.

[75] u/Tidybloke, reddit, comment, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/ewe9dkc/.

most populous state. The labor is both cheap and contented, and claims of exploitation by Westerners are unfounded and/or hypocritical.[76] With a recognition that the schoolchildren manufacturing Alexa are in the years just before adulthood, rather than younger (as were the children working in U.S. industry during late 19th/early 20th century development), this can be claimed as both economic and humanitarian progress.[77] The only thing which might impede such development is a drop in demand, so buying an Amazon Echo is how a U.S. consumer can contribute to making the world a better place.

"Convenience"

Advertisements are unwelcomed as posts by many reddit users and across much of the site, just as corporate attempts to go viral often fall flat across many social media. As carefully-crafted messages, social media advertisements (such as Samsung's for their smart refrigerator) require promotion through payment to the platform to ensure visibility, even though engagement still falls short of user-generated content (i.e. that called "organic" in an advertising metaphor). This situation results in multiple commenters across many of the selected threads asking some variation of the question "why would anyone want an Alexa device in their home?" The question is perhaps posed by some not expecting an answer (i.e. "rhetorically" in a colloquial sense, such as "Why the *hell* would you want this in your house?!") to indicate an imbalance of Alexa's usefulness and the potential for surveillance, and possibly by others earnestly interested

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[76] Sinclair Lewis, *Cheap and Contented Labor; The Picture of a Southern Mill Town in 1929* (New York, NY: United Textile Workers of America, 1929); A.G. Hughes, "'Cheap and Contented Labor': Sinclair Lewis, irony, and the Marion massacre," *Watchung Review* 2 (2018): 24-32; Sinclair Lewis analyzes an eerily similar description of early-20th-century U.S. workers in his pamphlet *Cheap and Contented Labor*. I have offered an analysis of irony in the pamphlet elsewhere.

[77] Cathy McHugh, *Mill Family: The Labor System in the Southern Cotton Textile Industry 1880-1915* (New York, NY: Oxford University Press, 1988).

in the practices of other redditors. In an indirect way, crowd-sourced answers to these

questions serve as organic advertising of Alexa with an emphasis on the term

"convenience," such as in this comment which has since been deleted by the user:

> For me it's just convenience. Laying in bed and forgot to turn off my kitchen light? I can just tell Alexa to do it. When I walk in my front door and it's dark I can tell Alexa to turn all my lights on. When I'm leaving and I tell it to turn all my lights off. If I'm not sure where my iPhone is I can tell it to sound a ring. I also have a smart thermostat so I can tell alexa what temperature I want my apartment to be at anytime (sometimes I wanna be hotter, sometimes colder). I don't usually use it for music but when I have company/have a party people find it much more convenient to be able to tell Alexa what to play than to have to go to my personal computer or my phone or something to change the music. There's different things it's useful for.

This montage of scenes from the redditor's domestic life might as well be a hastily

written draft script for an Alexa commercial. With an energetic voice-over and quick cuts

to various places around the home, a variety of tasks made more convenient by Alexa

(lights, lights, lights, phone location, temperature up, temperature down, song selection)

could all be presented in a thirty-second spot which ends with a pleasant social scene

beneath Amazon branding.

Another shorter comment adds additional functions, answering the "why Alexa?"

question by stating, "Because of all the utility. I can listen to my music, the radio, a

podcast, adjust the lights in my house or set kitchen timers all without touching anything.

It's pretty damn convenient."[78] Yet another indicates a usefulness which goes even

beyond "convenience," claiming, "My uncle can't move his arms or legs anymore and

needs a power chair to get around so he has one so he can use his voice for things like

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[78] u/agreeingstorm9, reddit, comment, December 20, 2018, https://www.reddit.com/r/news/comments/a7wrdn/amazon_error_allowed_alexa_user_to_eavesdrop_on/ec6co2y/.

lights and temperature and stuff like that."[79] For such users, Alexa becomes an essential

assistive technology offering independence otherwise out of reach.

Alexa's tendency to misinterpret makes no appearance in such user-generated

advertisements, as competence is now necessary. Repeatedly yelling an activation word

isn't very convenient. The "convenience" emphasized is the result of an intelligent

consumption required by Alexa like any other emergent technology: the ability to

navigate, understand, and interact with multiple pages/screens of settings (often including

advanced or developer options) to "dial in" the system. Though filtered through a

graphical user interface, avoiding interaction with programming languages or other

challenging elements, a level of technical competence is still necessary to ensure

continued convenient function of the virtual assistant.

For example, another redditor provides a technical corrective to a post consisting

solely of a link to a news article on the San Diego dollhouse incident:

> The Echos don't really work like this. You have to confirm the order after placing
> it. You also get an email telling you about it if you confirm it. There's plenty of
> time to cancel.
> Mine was a gift. Thought it was dumb at first, but now I use it to turn on and off
> all the lights in the house, play music (it has a great speaker), get weather
> forecasts, news updates, and market reports all by voice command when I'm busy
> doing other things in the house. It really is quite awesome if you have a genuine
> use for it. My wife even uses it as a cooking timer.[80]

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[79] [deleted], reddit, comment, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc8zzb
/; Waymo, "World's First Fully Autonomous Ride on Public Roads (Highlights)," March 20, 2017, video,
1:24, https://youtu.be/ArYTxDZzQOM; This argument for Alexa's potential as an assistive technology
closely resembles that of a video promoting Waymo's autonomous vehicles as offering mobility to those
unable to drive themselves.

[80] u/wratz, reddit, comment, January 7, 2017,
https://old.reddit.com/r/technology/comments/5mklhd/tv_anchor_says_live_onair_alexa_order_me_a/dc4b
5lb/.

In the first sentences of this comment the user describes the process of ordering items from Amazon by voice and the steps put in place to avoid accidental orders, making a customer rather than Alexa responsible for such mistakes. The next portion tells of the commenter's evolution from an uninterested giftee to an enthusiastic Alexa user. Another user-generated advertisement for the virtual assistant, with each of the "genuine uses" in a montage, concludes with the redditor's wife using one of Alexa's more traditionally domestic functions—as a kitchen timer—second only to the system's utility as a voice-activated light switch.

Turning on the Light

"Connect," "work," and "convenience" intersect in limited ways as exemplary terms used in the proponent rhetorics of Alexa deliberations on reddit. I have tried to point these out in the previous pages (e.g. connection as necessary to Alexa working), but a dependence on Burke's cluster-agon method breaks down at this point for an analysis of social media rhetorics. These rhetorics are plural even as they might cohere into proponent or opponent categories. As a result, the habitual or ideological vocabulary which peppers an individual's rhetoric and can be analyzed in terminological clusters (e.g. the interplay of "challenge" and "work" in a politician's speeches) is quite different from the patterns of usage which appear among the fragmented comments bound loosely in a binarized orientation (e.g. Alexa is good).[81] Instead of some combination of "connect," "work," and "convenience" by one commenter, we might recognize the usage pattern of one of these terms across multiple comments. These terms are generally employed in patterns which emphasize expertise and rationality (as they can be found in

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[81] de Velasco, *Centrist Rhetoric*, 137-150.

the disciplines of computer science, business, and economics) above competing values. "Connection" is considered in a technical sense for the proponent rhetorics, rather than the contractual ties which might be found in Amazon's service to U.S. intelligence agencies. Similarly, "work" is presented as progress rather than exploitation, and Alexa's "convenience" is touted even as widespread flaws regularly occur.

Further, in this specific set of pro-Alexa comments the implicit rather than explicit linkages between these terms may also be understood to serve an obscuring function. Instead of a clear picture of Alexa devices and the virtual assistant being built, sold, and used, "convenience" for a customer has no direct "connection" to the labor of overseas factory workers. The unethical aspects of contemporary consumption can be the most obvious indicators of technocapitalism's flawed design, but they can also be characterized by technology proponents as merely an illusion of the naïve critic if not altogether ignored. The rational deliberators of Alexa controversies who make their comments on reddit, often mentioning their credentials, push back against the tendency of social media toward scandal and outrage with arguments rendering Alexa opponents non-sensical or (in the case of surveillance concerns present across most of the selected posts) paranoid. Yet these supposed arbiters of Truth are unlike the technologies they defend, in that their comments harbor emotional undertones. "Facts don't care about your feelings," we might imagine them seething in a corrective to another reddit user's concerns that Alexa is a stone on the path to dystopia. "Do you not know how Alexa works?" This question and others are not genuine queries of the interlocutor's awareness, but insults after determining it. I assume not all of the commenters harbor such disdain beneath more widespread pattern of expertise and rationality, but the relationship mirrors that of the

embodied (often simple) pleasures of the domicile and networks of intricate technologies installed atop the home to enhance those pleasures. Interfacing via the emotionally laden vocal plane, the "convenience" offered to users by Alexa appears more comforting than towards efficiency.

Putting aside those deeper drives, technical rationalism is the cornerstone of the evident pro-Alexa logic on reddit: an Enlightenment complex also including capitalist economic development and liberal consumption. More succinctly, I call this the logic of technological progress. The act of turning on the light, whether Edison's incandescent bulbs by pressing a switch or Philips's Hue models of colorful LED bulbs by commanding Alexa, is a transhistorical representation of this logic and what material changes it might spur in the future.

Technological progress is the foundation for the U.S. technology sector's status as the global economic hegemon, and the guiding logic toward maintenance of this status and defense against Chinese competition. Alexa plays a crucial role in Amazon's race to advance artificial intelligence, and updates to the virtual assistant (like most smart home products) demonstrate that technological progress is on the move. These motivations have trickled down to workers, customers, and the general public, whether through advertising and other corporate messaging or the increasing influence of Amazon and other firms on public institutions such as colleges and universities. If the intellectual consensus in business and economics was more accepting than critical of neoliberalism long before the rise of Silicon Valley, rapid growth of the computer science discipline added important contributions to the mix resulting in the successful impact of technological progress on the world.

As I have discussed, reddit is a technologically interested space inhabited by both experts and non-experts. Though this balance has shifted dramatically from the former to the latter as the site became more popular, this analysis of the pro-Alexa comments demonstrates the logic of technological progress continues to be prominent on the site. What then should we make of comments which might be read as anti-Alexa? The logic of technological progress would lead us to believe opposition as against the continued potential for Enlightenment values to improve the lives of people around the globe, a project gaining speed in recent decades. However, opposing rhetors often maintain separate conceptions of that opposition (e.g. pro-choice/anti-choice and pro-life/abortion), and therefore the comments against Alexa on reddit can't be merely understood as an attack on technological progress. They employ their own terms, pattern of usage, and guiding logic.

Opponent- Economic Justice

Of the ten selected reddit posts, all but one appear to be criticisms of the virtual assistant Alexa or Amazon more broadly (see Appendix A). As mentioned previously, this confirms an understanding of social media visibility and spread being driven by scandal and outrage. While those guided by a logic of technological progress are inclined to correct and defend against what they might understand as emotional outbursts, opponents often lean into the affective flows. Amazon may have the resources to influence regulatory and trade policy around the globe, but there is only so much public relations work that can be done before the firm begins to seem ominous in how it inhabits digital deliberative sphericules. For example, Amazon's "FC [fulfillment center] ambassadors," warehouse employees the company began paying to post on social media

in 2018, engage in what disinformation researcher Jonathan Albright calls "dark art P.R."[82] This marks Amazon and Alexa as potential targets of criticism online, where amoral technological progress defends itself from the righteously indignant.

"Listening" and "labor" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Alexa. These words, as well as synonyms, derivations, and entailments, appear with regularity across the posts. They are deployed in patterns which resemble the skepticism and criticism maintained by investigative journalists writing about power in public and private institutions (famed for his reporting of the Snowden disclosures on U.S. government surveillance, Glen Greenwald is among the most prominent of such practitioners).[83] "The way to right wrongs is to turn the light of truth upon them," wrote investigative journalist Ida B. Wells in 1892, recognizing the utility of print media towards exposing the inhumane lynching of black people by whites in the U.S. south.[84] This utility, in matters of racial and other injustices, remains important but now with a parallel beam of light on social media—broad and fragmented as it may be, yet often able to focus on a single target.[85] Guiding these patterns in the case of Alexa deliberation on reddit, where Amazon looms large over individual workers and customers, is a logic of economic justice.

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[82] Jonah Engel Bromwich, "Amazon Uses a Twitter Army of Employees to Fight Criticism of Warehouses," *The New York Times*, August 15, 2019, https://www.nytimes.com/2019/08/15/style/amazon-fc-ambassadors.html.

[83] Greenwald and MacAskill, "NSA Prism program taps in to user data of Apple, Google and others."

[84] Mia Bay, introduction to Ida B. Wells, *The Light of Truth: Writings of an Anti-Lynching Crusader*, ed. Henry Louis Gates, Jr. (New York, NY: Penguin Classics, 2014), xix.

[85] Know Your Meme, "Twitter's Main Character," *Know Your Meme*, October 16, 2021, https://knowyourmeme.com/memes/twitters-main-character; As one Twitter user, @maplecocaine, has written of the platform, "Each day on twitter there is one main character. The goal is to never be it."

"Listening"

Government surveillance

In the wake of Snowden's 2013 revelations that U.S. intelligence agencies were actively collecting citizens' communications data, the Amazon Echo has elicited suspicion since its debut from a public more concerned than ever about government surveillance. Those once ridiculed for their conspiracy theories or Faraday cages are now not as much, in a time where the paranoid style is *du jour*.[86] People became increasingly worried that a state surveillance apparatus, greatly expanded following the 9/11 terrorist attacks, had via phones and computers snuck into and spied on their lives. After Snowden, Amazon's Alexa did not need to sneak in. The virtual assistant was invited into homes even as users knew it could be listening and sending data to U.S. intelligence agencies. One comment on reddit puts it differently: "Why have government impose eavesdropping devices in every home, when you can trick consumers into buying one themselves? Genius."[87] For redditors such as this one, U.S. citizens' consumptive tendencies can be manipulated to serve the ends of the surveillance state. For the agencies shrouded in mystery that once experimented with mind-control tactics, making palatable the bugging of U.S. homes via a listening device that can also tell you the weather seems mild by comparison.[88]

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[86] Roderick P. Hart, "Donald Trump and the Return of the Paranoid Style," *Presidential Studies Quarterly* 50, no. 2 (2020): 348-365, https://doi.org/10.1111/psq.12637.

[87] u/reestablish, reddit, comment, January 7, 2017, https://old.reddit.com/r/technology/comments/5mklhd/tv_anchor_says_live_onair_alexa_order_me_a/dc49 a6i/.

[88] Gary Kamiya, "When the CIA ran a LSD sex-house in San Francisco," *San Francisco Chronicle*, September 5, 2019, https://www.sfchronicle.com/bayarea/article/When-the-CIA-ran-a-LSD-sex-house-in-San-Francisco-7223346.php.

Suspected eavesdropping, listening but covertly, is assumed by many discussing Alexa on reddit. In other cases, listening to those unaware occurred not as result of intention but accident. "Amazon error allowed Alexa user to eavesdrop on another home" reads the title of one of the selected posts for this analysis, linking to a *Reuters* report not about the previously mentioned incident in Portland but the similar experience of a German Alexa user who was able to access recordings of a man and woman in their home.[89] Such privacy breaches among users reveals the potential of Alexa as a government surveillance tool. If consumers can stumble into encounters with recordings of others, the U.S. government might be intentionally listening to them as well.

This suspicion is likely why the "Alexa, are you connected to the CIA?" video became the most upvoted Alexa-related post on reddit and gained significant traction on other social media as well in 2017.[90] Though posted on the r/videos subreddit (one of the more popular on the site), a repost made within two hours of the original to the r/conspiracy subreddit also had significant success.[91] On the subforum adorned by two of reddit's alien mascot dressed as G-men in black suits and sunglasses, one site user claims confidently, "You think this a joke but they do use it" (Figure 7).[92]

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[89] u/jmbsc, "Amazon error allowed Alexa user to eavesdrop on another home," reddit, post, December 20, 2018,
https://www.reddit.com/r/news/comments/a7wrdn/amazon_error_allowed_alexa_user_to_eavesdrop_on/.

[90] u/DominarRygelThe16th, "Alexa, are you connected to the CIA?"

[91] u/Lelouch_Di_Britannia, "Alexa, are you connected to the CIA?" reddit, post, March 9, 2017,
https://old.reddit.com/r/conspiracy/comments/5yer6e/alexa_are_you_connected_to_the_cia/.

[92] [deleted], reddit, comment, March 9, 2017,
https://old.reddit.com/r/conspiracy/comments/5yer6e/alexa_are_you_connected_to_the_cia/deperln/.
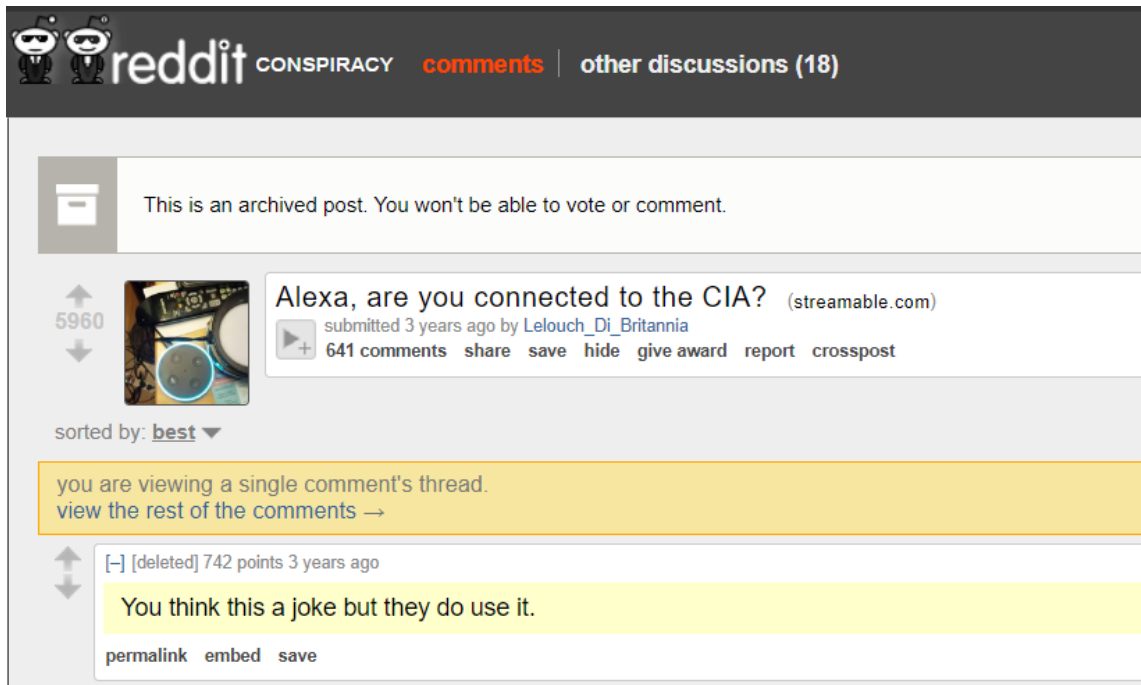
Figure 7: reddit and the paranoid style[93]

Rising from the level of online conspiracy theories, redditors can be found

elsewhere referencing credible reporting on ties between Amazon and U.S. intelligence

agencies. One comment on the original "Alexa, are you connected to the CIA?" post to

r/videos merely links to and quotes from a July 2014 article from *The Atlantic* titled "The

Details About the CIA's Deal With Amazon":

> *The Details About the CIA's Deal With Amazon*
>
>> "This summer, a $600 million computing cloud developed by Amazon
>> Web Services for the Central Intelligence Agency over the past year will
>> begin servicing all 17 agencies that make up the intelligence community.
>> If the technology plays out as officials envision, it will usher in a new era
>> of cooperation and coordination, allowing agencies to share information
>> and services much more easily and avoid the kind of intelligence gaps that
>> preceded the Sept. 11, 2001, terrorist attacks."
>>
>> "The Amazon-built cloud will operate behind the IC's firewall, or more
>> simply: It's a public cloud built on private premises."

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[93] [deleted], "You think this a joke but they do use it."

> "Intelligence agencies will be able to host applications or order a variety of on-demand services like storage, computing and analytics. True to the National Institute of Standards and Technology definition of cloud computing, the IC cloud scales up or down to meet the need."[94]

What the redditor who linked to and quoted this article from *The Atlantic* specifically meant to add to the discussion is unclear, as they provided none of their own remarks on either the video or the article. From the selected quotes, I assume it may have been to merely show the known connection between U.S. intelligence agencies and Amazon. The article itself stresses a shift in the management of intelligence information from state operated facilities to private ones. This contract is of a familiar design, where a government agency decides to find corporate providers which specialize in a needed service—whether server space, healthcare, or travel to low Earth orbit—instead of investing in publicly-owned infrastructure.[95] Importantly, the CIA and other agencies' connection to Amazon is different from a contract to build a bridge or even military equipment, as it establishes a continuing relationship between Amazon and the state. The surveillance industrial complex, like much of technocapitalism, operates on a subscription model.

This may explain why many posts and comments about Alexa on reddit are concerned less with the potential for government surveillance, the traditional spying by agents of the state which Snowden revealed as obviously occurring, than a form of

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[94] u/tamyahuNe2, reddit, comment, March 9, 2019, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depdlqa/; Emphasis added to text which links to Konkel, "The Details About the CIA's Deal With Amazon."

[95] Kenneth Chang, "'Thanks for Flying SpaceX': NASA Astronauts Safely Splash Down After Journey From Orbit," *The New York Times*, November 15, 2020, https://www.nytimes.com/2020/08/02/science/spacex-astronauts-splashdown.html.

surveillance tailor-made for the time and circumstance. With profit instead of security or political power as its primary end, corporate surveillance by data-hungry tech firms appears more relevant to the deliberation of Alexa.[96] Though the authoritarian surveillance apparatus of China also depends on a network of private tech firms, corporate surveillance in the U.S. has a looser relationship to state surveillance agencies.[97] Buried deep in one of the comment threads, a user in 2017 even links to one of Zuboff's articles on surveillance capitalism in the German press, years before publication of her book and widespread popularity of the concept.[98] The government may be collecting what information it can on citizens to ensure they don't interfere with the political or economic status quo, but Amazon might track a user's nightly habit of turning off the light by command to Alexa and subsequently assume their sleeping habits (perhaps useful for targeted advertising of melatonin). Unlike the U.S. intelligence agencies, Amazon even has its own servers to house all the collected data.

Corporate surveillance

One comment on reddit imagines a dialogue with Alexa relevant to the distinction between government and corporate surveillance:

Me: Alexa, are you spying on me?

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[96] I refer to corporate surveillance rather than surveillance capitalism in this analysis, to include the data gathering used to improve products or services which Zuboff excludes from her focus on the behavioral surplus extracted and used for predictive purposes.

[97] Ross Andersen, "The Panopticon is Already Here," *The Atlantic,* September 2020, https://www.theatlantic.com/magazine/archive/2020/09/china-ai-surveillance/614197/.

[98] u/cloverrace, "Surveillance capitalism: http://www.faz.net/aktuell/feuilleton/debatten/the-digital-debate/shoshana-zuboff-secrets-of-surveillance-capitalism-14103616-p2.html?printPagedArticle=true," reddit, comment, January 7, 2017, https://old.reddit.com/r/technology/comments/5mklhd/tv_anchor_says_live_onair_alexa_order_me_a/dc4fj8h/.

Amazon: Wevalue [sic] your privacy and would only share your information with close partners for internal uses.

Also Amazon: remember how you and your friend were talking about boats earlier today? Here are some advertisements for boating equipment. [99]

The reddit user may not have intended a distinction between spying specifically as intelligence gathering on behalf of a government and the potential for covert listening by Alexa on behalf of Amazon, but nevertheless recognizes Amazon's industry-standard approach to express value of user privacy while extracting data to be utilized in targeted advertising. Listening becomes a commercial practice rather than a security technique, as Amazon's rise coincides with U.S. decline.

"Amazon Execs: 'Don't worry, though. WE definitely can't listen in to your private moments through the Alexa'" comments one redditor sarcastically below the post linking to the *Reuters* article on accidental eavesdropping in Germany.[100] Others link together the suspected practices of Google, Facebook, and Skype (subsidiary of Microsoft) in the comments beneath the "Alexa, are you connected to the CIA?" video (Figure 8).

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[99] u/SaxyOmega90125, reddit, comment, June 19, 2019,
https://www.reddit.com/r/todayilearned/comments/c2ngfr/til_alexa_commercials_are_intentionally_muted_in/erm0qyu/.

[100] [deleted], reddit, comment, December 20, 2018,
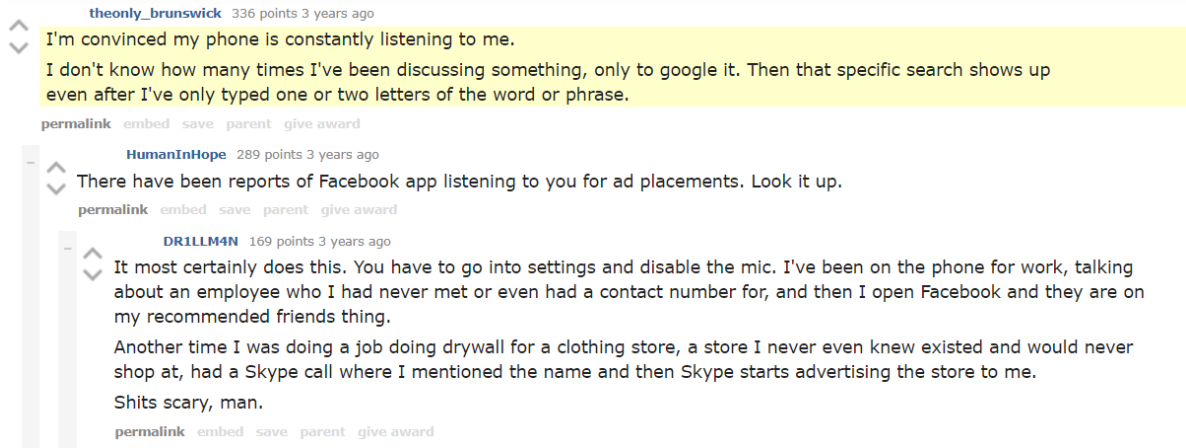https://www.reddit.com/r/news/comments/a7wrdn/amazon_error_allowed_alexa_user_to_eavesdrop_on/ec6axg1/.

Figure 8: Suspicions of widespread corporate surveillance[101]

Replacing the respective intelligence agencies of the U.S. and other nations, the products

of major technology firms are imagined by these reddit commenters to be harvesting

information for the benefit of Zuckerberg, Bezos, and their like—those described as

neofeudal lords by a variety of intellectuals, including libertarian economists, technology

analysts, and leftist media scholars.[102] "Technology firms are rapidly becoming the

default background condition in which our politics itself is conducted," writes Evgeny

Morozov, continuing, "Once Google and Facebook take over the management of

essential services, Margaret Thatcher's famous dictum that 'there is no alternative' would

no longer be a mere slogan but an accurate description of reality."[103] Indeed, just as a

January 2017 comment mentioned previously imagines the government "tricking"

citizens into buying their own "eavesdropping devices," a December 2018 comment on

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[101] u/theonly_brunswick, reddit, comment, March 9, 2017,
https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depdy15/.

[102] Jodi Dean, "Neofeudalism: The End of Capitalism?" *Los Angeles Review of Books*, May 12, 2020,
https://lareviewofbooks.org/article/neofeudalism-the-end-of-capitalism/.

[103] Evgeny Morozov, "The state has lost control: tech firms now run western politics," *The Guardian*,
March 26, 2016, https://www.theguardian.com/commentisfree/2016/mar/27/tech-firms-run-western-
politics-evgeny-morozov.

the *Reuters* German accident post places Amazon in the position of surveilling

manipulator:

> I don't understand why anyone would voluntarily own one of these things. If you told folks a multibillion dollar corporation was bugging their home, they'd freak out. But they gladly buy the bug themselves...[104]

This comment, in addition to similar others, indicates that the anti-Alexa orientation as

related to the virtual assistant's capacity to listen has come to include and even privilege

the potential for corporate rather than government surveillance. Whether in response to

declining state power in the age of multinational big business, or as result of Snowden's

confirmation of long suspected government surveillance, attention turns to privatized

surveillance whether known or merely imagined in new conspiracy theories. With this

reorientation of public attention to listening, the subject of surveillance is the customer

rather than the citizen. Unlike the intelligence agencies, which traditionally employed a

small, trained workforce in targeted government surveillance of a citizen, Amazon's

corporate surveillance of customers requires a global mass of unskilled laborers.

Labor

Though incorporated in the polysemy of the proponent term "work," labor is

characteristically different when deployed in comments against Alexa. Though the labor

movements of the 20th century fizzled decades before the advent of today's social media,

the residual rhetoric of labor advocacy has migrated to digital public sphericules.

Whether this phenomenon is merely the final convulsion of a dead movement—nostalgia

of today's educated and downwardly-mobile for an era when unions weren't a novelty,

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[104] [deleted], reddit, comment, December 20, 2018,
https://www.reddit.com/r/news/comments/a7wrdn/amazon_error_allowed_alexa_user_to_eavesdrop_on/ec6c3jw/.

before their lives began—or a spark which might lead to revitalization of working-class

politics is unclear. Regardless, critical analysis (however superficial) has become a

common genre of post and comment on reddit.

For example, one of the top ranked posts on the site regarding Alexa, titled

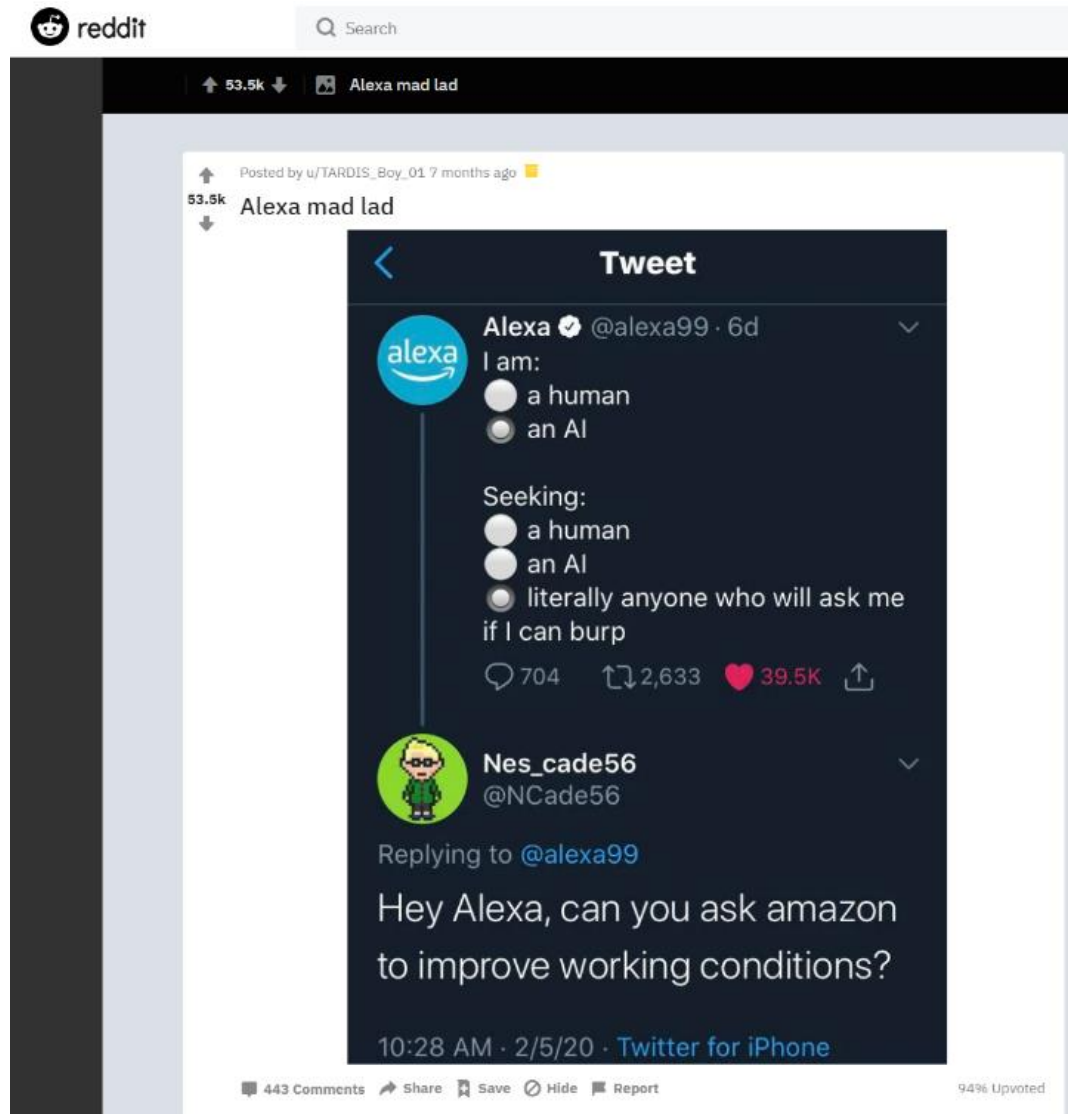"Alexa mad lad," consists solely of a screenshot from Twitter (Figure 9).

Figure 9: "Alexa mad lad"[105]

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[105] u/TARDIS_Boy_01, "Alexa mad lad," reddit, post, February 10, 2020,
https://www.reddit.com/r/madlads/comments/f1pjxn/alexa_mad_lad/.

This post demonstrates the way digital rhetorics often cross from one platform to another, but also a shared critical attitude by users toward Amazon's attempt at using internet vernacular to promote Alexa. The light-hearted joke by an Amazon social media staffer is in stark juxtaposition with the reply that turns attention to labor conditions, posed in the form of a standard question to the virtual assistant. As corporate social media practices increasingly consist of appropriating the style of organic memes, an opportunity emerges to those who would make serious and visible criticisms. The veneer of cultural affectation will not mollify those who seek material change in labor conditions, but it may anger them.

The 2019 reddit post which links to *The Guardian*'s article (the report on Chinese schoolchildren working long hours to manufacture Alexa devices) sits atop a thread housing the majority of comments criticizing the labor practices of Foxconn and describing Amazon as complicit. [106] Many of these appear as responses to the comments critical of the main post and *The Guardian*'s reporting. In other words, they are correctives to correctives, and because of their connection to prominent comments absolving Amazon from responsibility for the labor conditions they have more visibility among the 2064 total comments beneath the post. These comments use a function on the reddit site to quote a portion of the parent comment to which they are replying. For example, one quotes the incendiary conclusion of a comment which I have already described:

> *Just spitting this out before someone who didn't read the article write the usual "Dae china uses child labour."*

It's not like this is hidden from the state.

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[106] u/davidecaproni, "Leaked documents show 16-years-old children work."

But... it's also not like the responsibility doesn't lay with Amazon, and U.S. regulation that allows Amazon to launder it's labor violations by hiring out a foreign corporation to do the dirty work.[107]

Amazon's wily production practices, seeking cheap overseas labor and maintaining distance from exploitative practices through use of a contracted manufacturer that can easily be scapegoated, are standard in the contemporary global economy. The metaphorical use of "launder" in this comment evokes a sense of financial fraud (i.e. money laundering), but we might also recognize a new meaning for "Chinese laundry" in the 21st century here. However, there are no indications that the author intended to link today's practices to the actual laundries of the U.S. in centuries past, where Chinese immigrants barred from other opportunities labored long hours. Foxconn dutifully plays its role in today's arrangement as reputation launderer for Amazon and many other U.S. hardware designers. Unlike Amazon, the Taiwanese manufacturing firm makes no attempt to use online humor on a U.S. social media site. Unless you break open a device and see the company's name on an internal component, you might not even know Foxconn exists.

Another comment expands on Amazon's culpability for the practices of Foxconn:

The blame cannot be taken off Amazon for HIRING this manufacturing company, one which has a record of repeated violations. They claim to take swift action when alerted of these kinds of labor oversights, but that action consists of implementing more "oversight" and basically slapping Foxconn on the wrist. They are one of the wealthiest companies in the world. If they truly cared about these labor violations, they would end their contract with Foxconn.[108]

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[107] u/_therar_, reddit, comment, August 8, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/eweh4t1/.

[108] u/XOffTheBar, reddit, comment, August 9, 2019, https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_work/eweotih/.

Recognizing the laundering of labor violations and a lack of meaningful accountability,

this reddit user points to Amazon's power to both begin and end contracts with Foxconn.

As a result of not exercising that ability, Amazon cannot deflect blame as it knowingly

employs the firm with over a decade of documented labor exploitation to manufacture

Alexa devices. In other words, the laundering cannot continue, and Amazon must make

substantial adjustments to hardware manufacturing to match its purported corporate

social responsibility.

One redditor expands the discussion beyond Amazon, recognizing the firm to

merely be acting as allowed by global economic structures:

> Whenever the US has done trade deals like NAFTA, or the one that enabled US
> companies to move their production to China, they always put in some nice
> sounding language about protections for labor and the environment. These have
> universally included no mechanism whatsoever for enforcement, and are ignored.
> It should terrify Democrats that Joe Biden just told us in the last debate that he
> was going to pass the TPP by inserting this same bullshit about protecting labor
> and the environment. Nobody believes this crap anymore. Child labor and near-
> slave wages are what these deals are all about.[109]

Made on August 8th, 2019, this comment refers to an answer given by former Vice

President Joe Biden the previous week in response to a question from CNN chief political

correspondent Dana Bash, serving as moderator during the Democratic Party's second set

of presidential debates.

> BASH: Vice President Biden, would you rejoin the Trans-Pacific Partnership,
> which, of course, President Trump withdrew from? Please respond.
>
> BIDEN: I'd renegotiate. We make up 25 percent of the world's economy. In order
> -- either China is going to write the rules of the road for the 21st century on trade
> or we are. We have to join with the 40 percent of the world that we had with us,

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[109] u/chasjo, reddit, comment, August 8, 2019,
https://www.reddit.com/r/worldnews/comments/cntr75/leaked_documents_show_16yearsold_children_wor
k/ewdu14r/.

and this time make sure that there's no one sitting at that table doing the deal unless environmentalists are there and labor is there.[110]

Instead of blaming corporate actors, U.S. trade policies enacted and proposed during the previous two administrations of Democratic presidents are held responsible by this reddit user for current labor conditions. While the Republican Party has long been criticized for its funding from and ties to corporations, including those causing more obvious harm (e.g. oil and gas firms), the Third Way, the subsequent ideology beneath the illusion of "Hope" & "Change," and the potential for a Pacific trade agreement with no binding labor protections in the U.S.'s future are now the hegemonic forces which will lead to continued exploitation.

This is seemingly a tangent (global trade) to a tangent (Chinese manufacturing practices) of this chapter's subject: Amazon's virtual assistant Alexa. But such is the nature of online deliberation. Alexa is a signifier not only of contemporary surveillance and home automation but also the global network of labor exploitation barely hidden beneath the gloss of culturally-progressive technocapitalism. Alexa and the devices which house the virtual assistant are like other technology products (e.g. an electric vehicle) in that they offer an illusion of autonomy from the harmful network on which they depend (e.g. coal plants producing electricity). Logically, it follows that a critical perspective on reddit would aim to reveal what U.S. tech sector ideology and advertisements conceal.

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[110] "Second Night of Democratic Debates. Aired 8-10:45pm ET," *CNN*, July 31, 2019, http://transcripts.cnn.com/TRANSCRIPTS/1907/31/se.02.html.

The Light of Truth

The terms "listening" and "labor" are used in the comments against Alexa and Amazon listed above as well as elsewhere on reddit in a pattern that aligns with the long tradition of investigative journalism appearing in print. This is not to say that the moral evaluations of right and wrong as they appear on reddit are the same as those made by media professionals. In fact, the opposite is often true, but it is the virtuous journalist's healthy skepticism and willingness to criticize power that becomes vernacularized on reddit and other social media. In recent years, professional journalists have become more adept at investigating abuses of waning government strength, to the detriment of an ability to interrogate waxing corporate control. This does not appear to be mere coincidence, but a shift in investigative journalism influenced by the structures of news organizations. In 2019, one democratic socialist put forth a careful critique of those structures:

> We have an authoritarian type president right now, who does not believe in our Constitution, who is trying to intimidate the media … That's not what we do. But I think what we have to be concerned about ... is that you have a small number of very, very large corporate interests who control a lot of what the people in this country see, hear, and read. And they have their agenda.[111]

Unsurprisingly, this agenda is quite different in composition from that of the broader U.S. citizenry. It is certainly different from the agenda of redditors, which instead allows for the vernacularized discourse of investigative journalism to more vigorously advance a logic antithetical to corporate interests—the logic of economic justice.

[111] Katrina vanden Heuvel, "Opinion: Bernie Sanders has a smart critique of corporate media bias," *The Washington Post*, August 20, 2019, https://www.washingtonpost.com/opinions/2019/08/20/bernie-sanders-has-smart-critique-corporate-media-bias/.

"I think a lot of us believe this, that democracy dies in darkness, that certain institutions have a very important role in making sure that there is light," Amazon CEO Jeff Bezos remarked in 2016 regarding his purchase of *The Washington Post* for $250 million in 2013.[112] As is well known, the newspaper published important reporting on the Pentagon Papers and the Watergate scandal in the early 1970s. However later in the decade, *The Washington Post*'s management used anti-labor tactics to "chasten" striking pressmen, mailers, and photoengravers.[113] Journalists, members of the Newspaper Guild, did not join the blue-collar unions' strike, and nonunion replacement employees were eventually hired by publisher Katherine Graham. A retrospective published by the paper during the era of Bezos praised the former publisher for her "fierce leadership" during the episode, which ended with the collapse of the pressmen's union.[114]

The newspaper would add the phrase "Democracy Dies in Darkness" as a slogan on the masthead in February 2017, just one month after the presidential inauguration of Donald Trump. According to *The Washington Post*'s media reporter Paul Farhi, Bob

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[112] Paul Farhi, "The Washington Post's new slogan turns out to be an old saying," *The Washington Post*, February 24, 2017, https://www.washingtonpost.com/lifestyle/style/the-washington-posts-new-slogan-turns-out-to-be-an-old-saying/2017/02/23/cb199cda-fa02-11e6-be05-1a3817ac21a5_story.html; Paul Farhi, "Washington Post to be sold to Jeff Bezos, the founder of Amazon," *The Washington Post*, August 5, 2013, https://www.washingtonpost.com/national/washington-post-to-be-sold-to-jeff-bezos/2013/08/05/ca537c9e-fe0c-11e2-9711-3708310f6f4d_story.html.

[113] Ben A. Franklin, "WASHINGTON POST FIRM OVER STRIKE," *The New York Times*, October 12, 1975, https://www.nytimes.com/1975/10/12/archives/washington-post-firm-over-strike-with-pressmen-idle-for-a-2d-week.html; Ben A. Franklin, "Washington Post Faces Climax in Strike," *The New York Times*, December 14, 1975, https://www.nytimes.com/1975/12/14/archives/washington-post-faces-climax-in-strike-guild-weighs-position-change.html; Ben A. Franklin, "'Chastened' Unions Lick Their Wounds as Last Holdouts in 20-Week Washington Post Strike Return to Work," *The New York Times*, February 29, 1976, https://www.nytimes.com/1976/02/29/archives/chastened-unions-lick-their-wounds-as-last-holdouts-in-20week.html.

[114] Michael S. Rosenwald, "Katharine Graham was burned in effigy, but refused to give in during a violent strike," *The Washington Post,* June 16, 2017, https://www.washingtonpost.com/news/retropolis/wp/2017/06/15/she-stood-up-katharine-grahams-fierce-fight-against-a-violent-pressmens-strike/.

Woodward frequently applied the idea to the Watergate scandal (coverage of which led to his and Carl Bernstein's fame as investigative journalists for the newspaper), but he did not come up with the phrase himself:

> Woodward's source appears to be Judge Damon J. Keith, of the U.S. Court of Appeals for the 6th Circuit, who ruled in a pre-Watergate era case that the government couldn't wiretap individuals without a warrant. In his decision, Keith apparently coined a variation on *The Post*'s motto, writing that "Democracy dies in the dark."[115]

In response to Trump calling the newspaper "The Amazon Washington Post" in 2018, editor Martin Baron described Bezos as merely involved in business strategy, exercising no influence on *The Washington Post*'s news operations.[116] Nevertheless, in 2018 the newspaper refused to run a staff writer's op-ed critical of Bezos's use of philanthropy to distract from poor working conditions for the blue-collar workers at Amazon warehouses and cutting retirement and health benefits for white-collar staff at *The Washington Post* (the op-ed was subsequently published by *HuffPost* and the author was disciplined for doing so without his employer's permission).[117]

Instead of "Democracy Dies in Darkness," those of us outside the Beltway would be wise to privilege another phrase toward understanding such a fracas of powerful corporate, media, and political figures bearing interests unaligned with our own: "follow

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[115] Farhi, "The Washington Post's new slogan."

[116] Sydney Ember, "To Trump, It's the 'Amazon Washington Post.' To Its Editor, That's Baloney," *The New York Times,* April, 2, 2018, https://www.nytimes.com/2018/04/02/business/media/to-trump-its-the-amazon-washington-post-to-its-editor-thats-baloney.html.

[117] Fredrick Kunkle, "Jeff Bezos Wants To Give More Money To Charity. He Should Pay His Workers First," *HuffPost,* September 1, 2017, https://www.huffpost.com/entry/jeff-bezos-workers_n_59a7220fe4b07e81d354e6e3; "About the Guild," The Washington Post Guild, accessed August 8, 2022, https://postguild.org/about-us/.

the money."[118] Doing so leads to Bezos atop his two organizations: Amazon, with Alexa among its products and services epitomizing the logic of technological progress, and *The Washington Post*, editorially detached in theory from the CEO and his technology/retail business but nevertheless practicing a discourse of investigative journalism focused on the federal government rather than corporations, including the major technology firms. Whereas the newspaper advances the logic of the Fourth Estate (notably as the capital's local publication), its ability to meaningfully put those same resources toward a logic of economic justice is suspect.

Judge Keith's phrase, "democracy dies in the dark," as originally applied to warrantless wiretapping by the U.S. government aptly characterizes the focus of *The Washington Post*'s professional journalists, working within an institution with incentive to closely examine the government and hold its officials accountable (including those who might expand antitrust law impacting Amazon, or begin to more stringently enforce that which already exists). Decades after Watergate, it was the newspaper's veteran investigative reporter Barton Gellman who along with filmmaker Laura Poitras broke the PRISM story (Snowden's initial revelations) instead of other U.S. news outlets.[119] Yet only the relatively weak commitment to a professional ideal of editorial autonomy would lead to producing similar exposés of corporate surveillance and exploitative labor conditions, reports which would conflict with the interests of not only Bezos but *The*

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[118] *All the President's Men*, directed by Alan J. Pakula (1976; Burbank, CA: Warner Bros.); This is the famous instruction given by Woodward and Bernstein's anonymous source Deep Throat in the 1976 film adaptation of the journalists' 1974 book on the Watergate scandal.

[119] Barton Gellman and Laura Poitras, "U.S., British intelligence mining data from nine U.S. Internet companies in broad secret program," *The Washington Post*, June 7, 2013, https://www.washingtonpost.com/investigations/us-intelligence-mining-data-from-nine-us-internet-companies-in-broad-secret-program/2013/06/06/3a0c0da8-cebf-11e2-8845-d970ccb04497_story.html.

Washington Post's journalists whose vocation has rapidly become the domain of

professional elites.[120] Barbara Ehrenreich describes from experience how working-class

reporters who pursue a logic of economic justice within corporate news organizations are

pressured to abandon that focus and/or forced to seek other avenues of employment:

> At the beginning of my career, I could earn enough to support my family, at however minimal a level. But starting in the 1990s that began to change. Newspapers and other news outlets were taken over by large corporations that were concerned only about the bottom line. They cut their staffs, including journalists, and closed those magazines and newspapers that weren't making enough money, at least by the standards of their new owners, with the result that, today, writers aren't paid well when they're paid at all.
>
> To make things worse, I often chose to write about poverty—about all the people who are left out of America's fabulous wealth, who try to get by on about $10 an hour while raising children and paying exorbitant prices for rent and medical care. […] But this, of course, is not the kind of thing that the new super-rich owners of the media business want to hear. I found the demand for my kinds of stories diminishing. Editors urged me to write less about economic inequality and more about "feminine" topics like the first lady's fashion choices and the secrets of success of female CEOs. I could no longer make a living in journalism, and had to find other ways to support myself.[121]

"It turns out that PMC [professional managerial class] virtue is also the color of money,"

writes Catherine Liu, applying the term first coined by Ehrenreich in the late 1970s (with

her then-husband John Ehrenreich) to describe how the social class—made up of

journalists, academics, and others with the same material interests (including myself, and

likely anyone reading this)—long ago abandoned the left, preferring since the mid-20th

century "to fight culture wars against the classes below while currying the favor of

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[120] Justin Ward, "The death of the working class reporter," *Justin Ward* (blog), June 25, 2019, https://justinward.medium.com/the-death-of-the-working-class-reporter-48b467300f4d.

[121] Barbara Ehrenreich, "Working-class journalism in the Age of Oligarchs," *Salon*, December 27, 2018, https://www.salon.com/2018/12/27/working-class-journalism-ehrenreich_partner/.

capitalists it once despised."[122] Bezos bailed out *The Washington Post* with capital from

Amazon's exploitation of workers—most treated as though they were robots—such as

the delivery drivers without adequate time for breaks who end up urinating in bottles and

defecating in bags.[123] Accordingly, the motto "Democracy Dies in Darkness" should be

understood as a bourgeois-liberal ideal championed by an industry increasingly incapable

of directing attention to injustices perpetrated against workers, or even merely presenting

those workers' perspectives accurately in its framing of the news.[124]

The posts and comments on reddit which I have categorized as antagonistic

toward Alexa—emphasizing the terms "listening" and "labor" in a pattern understood to

be a vernacularized version of investigative journalism—face fewer barriers in pursuing a

logic of economic justice. They are not paid for by an employer, and internet service

providers and Reddit Inc. are largely concerned with copyright management and content

moderation rather than tamping down leftist political communication.[125] Therefore, "the

light of truth" can be used on reddit in an attempt to make right the moral wrongs of

Alexa's production and function. Yet this achieves little in the grand scheme of political

economy, as Amazon moves ahead undaunted in the trajectory of technological progress.

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[122] Catherine Liu, *Virtue Hoarders: The Case against the Professional Managerial Class* (Minnesota, MN: University of Minnesota Press, 2021) 9, 3.

[123] Klippenstein, "Documents Show Amazon is Aware Drivers Pee in Bottles."

[124] Christopher R. Martin, *No Longer Newsworthy: How the Mainstream Media Abandoned the Working Class* (Ithaca, NY: Cornell University Press, 2019).

[125] Thomas Frank, "Liberals want to blame rightwing 'misinformation' for our problems. Get real," *The Guardian*, March 19, 2021, https://www.theguardian.com/commentisfree/2021/mar/19/rightwing-misinformation-liberals; However, censorship of anti-capitalist thought on social media is not outside the realm of possibility. Though privatized and managed by culturally progressive corporations, the digital deliberative sphere which facilitates and contains much contemporary political discussion would best serve democratic socialist ends if it had a value analogous to the public free speech tradition, which is increasingly disparaged by many seeking to deplatform and therefore win online fights against the right.

Attention online may lead to the proliferation of right-wing conspiracy theories, but little is done in terms of redistribution despite widespread online awareness that (though obfuscated) exploitation of workers and extraction from customers has allowed Bezos to amass an incomprehensible fortune.[126] Without a successful, mass boycott (if such a thing would even be possible at the global scale necessary), or rigorous regulation and taxation of the firm (for which the will of politicians seems mostly absent), there is no apparent way for Amazon to be held accountable. Massive, publicly traded companies like Amazon cannot be shamed online as individuals, their transgressions cannot be corrected by moralizing. The high-tech revolution's absurd disasters during the early 21st century echo the terrible calamities of the early 20th century industrial revolution. And so the pursuit of a just network of production and consumption (in many ways resembling the future imagined by the logic of technological progress), repeats itself again and again, ultimately decaying.

<div align="center">Glitched Rhetorics</div>

With an understanding of the rhetorics for and against Alexa, I now address the second question: *In what way do redditors* glitch *the deliberation of Alexa?* To answer this requires a methodological shift from the rhetorical-archaeological approach—analyzing terms, patterns, and logics—to digital rhetorical ethnography—describing and interpreting reddit culture and its *glitchy* response to Alexa and the deliberation above.

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[126] Kenny Stancil, "Progressive Coalition Stages Worldwide Black Friday Protests to 'Make Amazon Pay,'" *Common Dreams*, November 27, 2020, https://www.commondreams.org/news/2020/11/27/progressive-coalition-stages-worldwide-black-friday-protests-make-amazon-pay; According to the Make Amazon Pay coalition in November 2020, "Jeff Bezos could pay a $105,000 bonus to every Amazon worker and still be as rich as he was at the start of the pandemic" which began in March of the same year. What little in the way of direct payments U.S. citizens received during this period is notably stimulus for a consumer economy (likely increasing Amazon's revenue) rather than redistribution of the country's wealth (requiring higher taxation).

Relative to other social media, the reddit culture is nostalgic for an earlier era of online interaction but aware of the many changes since. It is among the places where people make vulgar jokes online about the wonders of technology and macro-level forces that make their lives worse: harmful private industry practices, poorly implemented public initiatives, and public-private partnerships seemingly effective only in their ability to discipline and punish citizens more intensely.[127] In this regard, reddit has a kynical culture evocative of the life of Diogenes of Sinope.

According to an anonymous Amazon cybersecurity engineer interviewed by the magazine *Logic*, "Jeff Bezos studies other 'great men' in history and imagines himself to be a kind of Alexander the Great."[128] The Macedonian king and the ancient library in the Egyptian city he founded has inspired a variety of eponymous Amazon projects, the engineer notes. The virtual assistant Alexa is among those with a name derived from Alexander. If we accept that Bezos compares himself to such a figure, that comparison clearly suffers from a lack of commonly expected humility and the historiographical error of individualism (as if future historians would one day write of "Jeff the Great"), yet a comparison of the ancient empire and the present-day multinational firm might reveal how the societal notion of power has and has not changed across millennia in scale and scope.

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[127] *Citizenfour*, directed by Laura Poitras (2014; New York, NY: Radius-TWC); Snowden describes this condition in one of his first interviews, included in Laura Poitras's documentary film *Citizenfour*: "I remember what the internet was like before it was being watched […] it was free and unrestrained. And we've seen the chilling of that and the cooling of that and the changing of that model, toward something in which people self-police their own views, and they literally make jokes about ending up on 'the list' if they donate to a political cause or if they say something in a discussion. It's become an expectation that we're being watched."

[128] "Inside the Whale," *Logic*.

According to a famous anecdote from antiquity, Alexander once visited Diogenes in Corinth while the philosopher laid in the sun on a hill, announcing "I am Alexander, the Great King," to which Diogenes replied, "And I am Diogenes, the Dog."[129] When the king offered anything he desired, Diogenes requested, "Stand out of my light," ignoring Alexander's authority as king, aligned with the divine and even the light-providing sun itself.[130] In this simple remark, Diogenes prioritizes natural, embodied pleasure above the social and political power observed and yielded to by most of his contemporary Greeks.[131] If Amazon is the great, technological kingdom of today, then kynical redditors are dogs of the internet, needing merely an internet connection (rather than sunlight) to grow and thrive. In fact, to say "kynical redditors are dogs" is to say the same thing twice via adjective and metaphor, as the Greek *κυνικός* or *kynikos* translated literally into English would be "doglike."[132] Like Diogenes, who claimed to "fawn on those who give me something, bark at those who don't, and bite the wicked," many redditors admire and emulate actual dogs (for example, there are millions of "Dog People" subscribed to the subreddit r/dogs), and their dog-ness is apparent rather than obscured.[133] On the internet it is clear who is and isn't a dog, as the irreverent reddit dogs disregard Amazon power, instead of celebrating it as the genesis of technological progress or challenging it as the

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[129] Laertius, *Lives of the Eminent Philosophers,* 6.38, 6.60.

[130] D. Diane Davis & Victor J. Vitanza, "Diogenes of Sinope" in *Classical Rhetorics and Rhetoricians*, eds. Michelle Ballif and Michael G. Moran (Westport, CT: Praeger, 2005), 133-134.

[131] Davis & Vitanza, "Diogenes of Sinope," 134.

[132] Davis & Vitanza, "Diogenes of Sinope," 133; Wiktionary, s.v. "κυνικός," last modified February 19, 2020, 15:48, https://en.wiktionary.org/wiki/κυνικός.

[133] Laertius, *Lives of the Eminent Philosophers*, 6.60; "r/dogs," reddit, accessed on August 8, 2022, www.reddit.com/r/dogs.

obstacle to economic justice.[134] With *glitched* rhetorics, they blaspheme against Alexa the Great, who would have them believe the virtual assistant can offer anything they would desire.

Masturbating in the Marketplace

Of the manifold effects brought about by the widespread use of the internet, the ways in which the traceability of sexual behavior has changed and how these changes are being navigated merit careful consideration. Instead of a magazine hidden under a mattress, a stain on a dress, or a tape recording of a hotel room—often discovered or acquired as a result of intense focus on an individual—the mass viewing of published sexual material and the private sending and receiving of sexual messages leave tracks online: IP addresses, device identifying information, and unencrypted message logs visible to corporate and state agents. Instead of targeted FBI surveillance of certain political dissidents, the internet allows "an active NSA program to collect the online sex activities, including browsing records of porn site and sex chats, of people regarded by the U.S. Government as radical or radicalizing in order to use their online sex habits to destroy their reputations," as reported by Greenwald and others based on materials provided by Snowden.[135] Thus, this set of intimate activities—which is already imbued with the conflicting sentiments of pleasure and disgust, which intersects the planes of media and bodies, and which is portrayed and perceived as both natural and shameful—is

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[134] Glenn Fleishman, "Cartoon Captures Spirit of the Internet," *The New York Times,* December 14, 2000, https://www.nytimes.com/2000/12/14/technology/cartoon-captures-spirit-of-the-internet.html; The first clause of this sentence is a reversal of the famous caption to a cartoon in *The New Yorker,* published in 1993.

[135] Greenwald, "Jeff Bezos Protests the Invasion of His Privacy."

subsumed in the neither private nor public sphericules of the internet, and therefore recorded by digital dragnets.

While the proponent and opponent rhetorics described previously emphasize Alexa's abilities to "connect" and "listen," a *glitched* rhetoric of sexual surveillance turns attention to what kind of data those abilities allow the virtual assistant to record. Like Diogenes, who was known to frequently masturbate in the marketplace (explaining by analogy, "If only one could relieve hunger by rubbing one's belly"), the *glitchy* redditors have no qualms in using within their rhetorical culture what many would perceive as salacious.[136] They masturbate in a marketplace now located in the mesospheric home, where commands to Alexa have replaced the act of bartering with merchants in a bazaar. In an open letter regarding threats he had received from the *National Enquirer*, Bezos writes "Of course I don't want personal photos published,"—referring to images of him and a partner in various stages of undress obtained by the tabloid—maintaining a social norm even while challenging what he argues are politically-motivated extortion attempts.[137] Dogs do not observe this common human distinction between natural and shameful, between private and public. They will look you in the eye while they are taking a shit.

This is not to put forth an apologia for sexual harassment or misogynist remarks on reddit or about Alexa. I am familiar with two studies by rhetoric scholars which

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[136] Laertius, *Lives of the Eminent Philosophers*, 6.46, 6.69; Observation regarding Diogenes's intent from Mensch's footnote 72.

[137] Jeff Bezos, "No thank you, Mr. Pecker," Jeff Bezos (blog), February 7, 2019, https://medium.com/@jeffreypbezos/no-thank-you-mr-pecker-146e3922310f; Jim Rutenberg and Karen Weise, "Jeff Bezos Accuses National Enquirer of 'Extortion and Blackmail,'" *The New York Times*, February 7, 2019, https://www.nytimes.com/2019/02/07/technology/jeff-bezos-sanchez-enquirer.html.

critique certain subreddits, posts, and comments on reddit as constituting a rhetoric of white male sexually based *ressentiment*, and statements made to Alexa (reported by users in various online forums) as indicators of demands for the virtual assistant to perform the gendered domestic role of sexual partner.[138] These arguments are proven valid by certain comments in my set of selected posts (e.g. "I asked her [Alexa] how many dicks she could fit in her mouth at one time and then she just turned off"), many among the least visible as a result of receiving a low score from combined upvotes and downvotes.[139] I am instead interested in offering an interpretation of a different kind of reddit comment on Alexa: prominent *glitchy* ones using sexual remarks to make vivid the potential for surveillance. This *glitchy* orientation is creatively articulated in the lyrics of "The Government Knows," by KNOWER, an electronic music duo steeped in internet culture, but here with a webcam as the featured surveillance technology instead of Alexa:

> The government knows when you masturbate
> The government knows when you masturbate
> The government knows when you feel alone
> And it's getting late and you're sitting at home
> Looking straight through your webcam
> Looking at you is Uncle Sam
> Look him in the eyes with your balls in your hand
> And stick it to the fucking man
> Stare at the screen when you unpack
> The government is staring back
> This is how they know you best
> With a dick in your right and a mouse in your left.[140]

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138 Casey Ryan Kelley, *Apocalypse man: The death drive and the rhetoric of white masculine victimhood* (Columbus, OH: Ohio State University Press, 2020); Woods, "Asking more of Siri and Alexa."

139 amazon, "Amazon's Big Game Commercial: Alexa's Body," February 2, 2021, video, 1:00, https://youtu.be/xxNxqveseyI; A 2021 Super Bowl advertisement flips this dynamic by imagining actor Michael B. Jordan as an erotic "new body for Alexa," desired by an Amazon employee to the dismay of her husband.

140 KNOWER MUSIC, "KNOWER living room power set 2020," May 11, 2020, video, 21:57, https://youtu.be/atBO6e7k5Wo?t=998; I wouldn't expect a reader to know of this song or group, as being largely unknown and outside the mainstream is to be expected for most independent artists creating and

If Alexa is spying for Amazon and/or the NSA, the *glitchy* comments focus on the

logical conclusion (however absurd) that the company and government agency are likely

to have collected audio and/or video of users while nude and engaging in sexual activity.

Instead of embarrassment, doglike brazenness defying social expectations becomes the

appropriate response to such an invasion of privacy—to look Uncle Sam "in the eyes

with your balls in your hand and stick it to the fucking man." An anthropomorphized

Alexa is not the target of this response, but the virtual assistant is recognized as merely

the technology facilitating the response's transmission to corporate and state agents.[141]

The illusion of a servile woman is seen through, revealing corporate and state

surveillance. Amazon and the government know when you masturbate.

On reddit, this *glitchyness* is best exemplified when one redditor asks another in

the comments on the "Alexa, are you connected to the CIA?" video post, "Do you not

know how Alexa works? In order for it to even get started, you have to be connected to

the internet," and another redditor gives not an anti-Alexa retort about the nature of the

virtual assistant's function, but a *glitchy* reorientation to the discussion: "I've been single

and a virgin for 43 years. I purposely installed cameras in my apartment connected to the

disseminating their art about and via the Internet. A multimedia performance of the song with visuals typical of internet culture is available to view.

[141] u/Falcon_Pimpslap, ""u up? wyd?" "A...Alexa?" "Sup sexy, wyd,"" reddit, comment, March 7, 2018, https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc61r4/; u/the_docs_orders, "Alexa, play digger digger!" reddit, comment, March 9, 2017, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depfb9v/; f0t0b0y, "Amazon Alexa Gone Wild! (ORIGINAL)," December 29, 2016, video, 0:24, https://youtu.be/r5p0gqCIEa8; Alexa is not the target of these brazen sexual responses, but literal glitches by the virtual assistant (loudly stating "Hello" at 3AM, or playing pornographic content in response to a toddler's music request) leads some users to imagine the opposite—that an anthropomorphized Alexa would be a sexual aggressor toward users.

internet, hoping someone will watch me masturbate. I'm lonely and i hate my life."[142]

Setting aside the unanswerable question of if this remark by an anonymous user is

genuine or satirical, it *glitches* the serious binary deliberation of Alexa through use of the

topic of sexual activity, here combined with middle-aged virginity to advance from

merely shameful to utterly abject. "I also find it arousing that the NSA is watching me

fap. Though im not lonely or a virgin, just like when people watch," another user adds,

demonstrating an exhibitionism (again, either genuine or satirical) based in pleasure

rather than frustration, and explicitly aimed at the NSA.[143] Approximately fifty other

comments focused on sexual surveillance and tangential topics ensue before the flow of

serious discussion regarding Alexa and the posted video continues.

    Another variation of the *glitched* rhetoric of sexual surveillance appears in the

comments to a March 2018 post to the subreddit r/gadgets "Amazon admits Alexa is

creepily laughing at people and is working on a fix" linking to an article from *The Verge*,

where the deliberative flow—one user's technical curiosity and a cynical reply about

government surveillance—is interrupted by a series of dick jokes (Figure 10). "So that's

why it always happened when Alexa saw my dick," the first *glitchy* user remarks,

suggesting that the literal glitch—an unprompted laugh many Alexa users were reporting,

noting the laugh's creepiness—was the reaction of spying NSA agents to the self-

[142] u/GA_Thrawn, "Do you not know how Alexa works?"; u/Shoryuhadoken, reddit, comment, March 9, 2017, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/deph3gp/.

[143] [deleted], reddit, comment, March 9, 2017, https://old.reddit.com/r/videos/comments/5yeefj/alexa_are_you_connected_to_the_cia/depi0wp/; Know Your Meme, "Fap," *Know Your Meme*, August 16, 2020, https://knowyourmeme.com/memes/fap; According to *Know Your Meme*, an encyclopedia of internet culture present and past, "fap is an onomatopoeic Internet slang term for the act of masturbation."

deprecating redditor's supposedly small penis.[144] A subsequent reply extends the joke

further by adapting dialogue from the 2003 Disney movie adaptation of the young adult

novel *Holes*, where in response to a claim by a boy suffering from paranoia to others at a

juvenile detention camp that the warden (a woman) has an elaborate surveillance

apparatus in place, another boy boasts that he's likely being watched by her in the camp's

showers before a third points out that the first had "said cameras and microphones, not

microscopes."[145]

Figure 10: An example of *glitching* the deliberation[146]

[144] 1710 points. Deleted by user.

[145] *Holes*, directed by Andrew Davis (2003; Burbank, CA: Walt Disney).

[146] u/Shadilay_Were_Off, reddit, comment, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc4fy8
/.

Fifteen years later, this fleeting joke from a children's movie is redeployed as "Alexa has a microphone not a microscope," perhaps by a redditor who had watched *Holes* as a child and grown into adulthood in an era when surveillance is assumed rather than merely suspected. In both the original context and the contemporary adaptation, the joke is kynical in that it resembles Diogenes using sexual deviance without reservation to put forth a challenge—to social norms, to the power of the warden, to the power of the surveillance state. In relation to the literal glitch of the laugh and the neither/nor approach to the binarized deliberation of Alexa, the 2018 adaptation is also *glitchy*. Despite the interruption, the parent comment asking about the technical cause for the laugh eventually receives a serious reply ("No it's a laugh. If you ask Alexa to laugh for you she makes the same sound"), but this appears deeper in the post's comment thread and is less visible as a result of receiving a lower upvote/downvote score than the *glitchy* dick jokes.[147]

Biting the Wicked

Learning that you have been listened to without your knowledge tends to make one feel disturbed. As a self-described "serial eavesdropper" writes, "eavesdropping is so fun precisely because it is so wrong. It's a complete break of the social contract, a listening-in that doesn't ask for permission."[148] Though this amateur spy suggests eavesdropping might in certain cases lead to empathy and social connection, I expect

[147] u/SteakHoagie666, reddit, comment, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc5552/.

[148] Brock Colyar, "God, I Miss Eavesdropping," *The Cut,* July 23, 2020,
https://www.thecut.com/article/why-i-really-miss-eavesdropping.html.

more often an emotional response of someone made aware that they're being surveilled to be negatively correlated to the eavesdropper's pleasure (which, as the spy states, is illicit in nature). In the case of another person listening to you in public, this may be anger or fear. In the case of Amazon or the NSA listening to Alexa users at home, deriving material benefit or political knowledge from surveillance, redditors commonly describe a more nuanced sentiment: it is creepy.

To be creeped out is not an entirely negative emotional experience. When something is creepy, that is to say it is uncertain or odd and possibly harmful. In response, a person will be attuned to the potential of danger but curious to explore the creepy thing or phenomenon. Snakes are both dangerous and intriguing: they may strike, some delivering venom in the process, but their nature as legless reptiles is so distinct from our own that even someone with ophidiophobia cannot help but be curious, even if the knowledge garnered strengthens their phobia. Snakes are creepy, and just by thinking and writing a few words about them I am compelled to glance underneath my desk to make sure that the black cord is only my computer's power cable and not an adder ready to strike at my feet. A dog will sniff out and carefully nip at a snake in a careful way that uses the mouth as both a weapon and to eat. They encounter snakes with the mixture of curiosity and fear of danger that characterizes the sensation of being creeped out, but their propensity to "bite the wicked," as Diogenes admires, is distinct from a person's instinct to flee in the service of self-preservation.

I will not be biting the snake I suspect is slithering under my desk, but I do have a few Echo Dots—various generations of the cheapest and smallest smart speaker produced for the home by Amazon that houses Alexa—which delight and terrify those who visit

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me. The devices come in handy for turning on a light across a room when entering late at night, but it is concerning when their blue rings light up in response to a slight mispronunciation of the word "election," among others. With the understanding of Alexa and Amazon provided above, the wise response may be to get rid of the Echo Dots as their material benefit appears to be outweighed by the potential for harm, but even the wisest of people often do not act in accordance with the logic that undergirds their rhetoric. "A little nonsense, now and then, is relished by the wisest men," and it is a kind of unreason that compels me to keep the devices, to invite the spies into the house.[149] For all I've read, thought, and written about Alexa (constituting some semblance of wisdom on the technology, I'd humbly suggest), my behavior with the devices is akin to that of a dog with a snake: cautiously curious of the creepy, biting rather than altogether avoiding Alexa.

"Still can't figure out why anyone wants these creepy things," writes one reddit user in the comments of a post titled "Amazon admits Alexa is creepily laughing at people and is working on a fix" which links to an article from *The Verge*.[150] Like those entirely critical of the virtual assistant's surveillance capabilities, this comment does not fully consider the complexity and ambivalence of creepiness even as it points to the sentiment. Second in prominence on reddit only to the "Alexa, are you connected to the CIA?" video post, the post linking to *The Verge* article spurred 4,293 comments in an

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[149] *Willy Wonka & the Chocolate Factory*, directed by Mel Stuart (1971; Hollywood, CA: Paramount Pictures).

[150] u/seeingeyegod, reddit, comment, March 7, 2018, https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc7am u/.

attached thread, many of which recount experiences of Alexa's creepiness.[151] One (which

has since been deleted by the user) describes how the virtual assistant had woken them up

the previous night, "loudly saying hello at 3:00AM," to which u/Shitty_Watercolour (i.e.

artist Hector Janse van Rensburg, who is well-known across the site) replied, "sleep well

:)" with a link to a painting that effectively captures the creepiness of Alexa (Figure

11).[152] A first-generation Echo, smiling but with a red-lit ring indicating error rather than

the usual blue of activation, saying "love me," but holding a knife behind, elicits a blank

stare from the person nearby in bed. "Well... I'm going to go ahead and move my Alexa

from my nightstand now. Thanks /u/Shitty_Watercolour," replies another user in

response to the image, notably not with the intention of discarding the device but merely

placing it more cautiously, ostensibly outside of stabbing range.[153]

[151] u/speckz, "Amazon admits Alexa is creepily laughing at people and is working on a fix," reddit, post, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/;
Shannon Liao, "Amazon has a fix for Alexa's creepy laughs," *The Verge*, March 7, 2018,
https://www.theverge.com/circuitbreaker/2018/3/7/17092334/amazon-alexa-devices-strange-laughter.

[152] Max Knoblauch, "A Reddit Mystery Solved: The Identity of 'Shitty_Watercolour,'" *Mashable*, March 12, 2014, https://mashable.com/2014/03/12/shitty-watercolour-profile/; u/Shitty_Watercolour, reddit, comment, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc9isp/
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[153] u/Shitty_Watercolour. "sleep well :) https://i.imgur.com/JKRlAIS.jpg."

Figure 11: u/Shitty_Watercolour's painting of a creepy Echo bedside[154]

As another reddit user posts in the subreddit r/Showerthoughts, "Alexa is the new Santa Claus. She sees you when you're sleeping. She knows when you're awake. She knows if you've been good or bad... and she's the one bringing presents."[155] In line with the top reply to the thought—"Now I'm scared of my Alexa"—I suggest such omniscience makes Alexa into a creepy figure which users of the virtual assistant have a child-like recognition of as a dark Santa, or some monster in the night. "So be good for goodness sake," we might add to finish the thought, recognizing the alternative to an internalized surveillance may lead to no presents or some worse fate inflicted upon us by dark Santa,

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[154] u/Shitty_Watercolour. "sleep well :) https://i.imgur.com/JKRlAIS.jpg."

[155] u/galendiettinger, "Alexa is the new Santa Claus. She sees you when you're sleeping. She knows when you're awake. She knows if you've been good or bad..." reddit, post, December 21, 2018, https://www.reddit.com/r/Showerthoughts/comments/a8e5ig/alexa_is_the_new_santa_claus_she_sees_you _when/.

by Alexa.[156] In the comments of another top reddit post about Alexa—an animated GIF of Jim Carrey as the titular character in *The Truman Show* (1998) reacting to his wife's advertisement-like description of a cocoa powder ("What the hell are you talking about? Who are you talking to?"), compared by the poster to their reaction when the virtual assistant activates without being prompted by a wake word—a comment makes explicit the connection between Alexa and a nighttime monster, writing as hypertext "Reminds me of this," linking to a short horror film posted on YouTube in 2017.[157]

Titled "Whisper," the two-minute scene of a woman in bed with a first-generation Echo on a nightstand becomes increasingly creepy. At first, Alexa lights up the Echo's blue ring unprompted and states, "sorry I could not hear you, please repeat," a typical glitch experienced by many users of the virtual assistant and device, especially in their first years. The woman is awakened and turns on her bedside lamp (apparently unconnected to the virtual assistant which could facilitate voice command of the task), and stares at the Echo with an expression that simultaneously contains frustration at being woken and wondering why it occurred. She turns the light off, trying to return to sleep, before the Echo lights again and Alexa says, "sorry I could not hear you, did you say 'I'm watching you.'" Now fully alert, the woman listens as the Echo lights and Alexa says, "did you say "come find me,'" and then "did you say 'look in the closet'" (Figure 12).

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[156] Laura Pinto and Selena Nemorin, "Who's the Boss? 'The Elf on the Shelf' and the normalization of surveillance," *Canadian Cenre for Policy Alternatives*, December 1, 2014, https://policyalternatives.ca/publications/commentary/whos-boss; Others have previously posited a connection between seemingly-benign Christmas cultural traditions (Santa and elves watching if children have been good or bad) and the increased acceptance of widespread corporate and state surveillance.

[157] u/Alphonse__Elric, reddit, comment, September 18, 2018, https://www.reddit.com/r/reactiongifs/comments/9gw6xc/mrw_alexa_says_hmmm_i_dont_know_that_one_when_no/e67k62m/; *The Truman Show*, directed by Peter Weir (1998; Hollywood, CA: Paramount Pictures); Julian Terry, "Whisper - Amazon Echo Horror Short," October 31, 2017, video, 2:00, https://youtu.be/J9gUIhkzNDk.

While she stares toward the dark closet, the Echo lights yet again. Alexa says nothing this time, but a monster emerges from beneath the nightstand, grabbing the woman by both of her arms and pulling her down from the bed.

Figure 12: Awoken by Alexa in "Whisper"[158]

The mixture of concern and curiosity toward Alexa throughout the creepy scene, an experience familiar to users of the virtual assistant, gives way to the supernatural horror of the monster. In comments on the post linking to a *Reuters* article, both titled "Amazon error allowed Alexa user to eavesdrop on another home," one reddit user recounts an experience like that of the woman in the fictional short film:

> My wife and I were laying in bed one night just chatting and our Alexa, without being prompted or even saying anything, just began playing back our conversation to us. I have no idea why or how or the implications of that but it is very unsettling.[159]

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[158] Terry, "Whisper - Amazon Echo Horror Short."

[159] u/WeekendWarrior1984, reddit, comment, December 20, 2018, https://www.reddit.com/r/news/comments/a7wrdn/amazon_error_allowed_alexa_user_to_eavesdrop_on/ec6ikky/.

Another writes in the comments on Alexa's laughing glitch, "I have an Amazon Echo, it did that earlier this week - stopped playing Jazz music and laughed. I live by myself and questioned my sanity for several minutes."[160] The glitches made these redditors *glitchy,* and they then *glitched* any explanation of technical failure or criticism of corporate surveillance. Instead of the domestic technological sublime or dystopia, techno-horror is posited by the short film as the extrapolation of usual experiences with the virtual assistant. Instead of a helpful technology for consumers or a harmful spy for the increasingly intertwined Amazon and NSA, Alexa is understood to be a wicked technological monster for the *glitched* rhetor to bite.

Conclusion

Emerging in the mid-2010s, the virtual assistant Alexa has become increasingly ensconced as a key domestic technology, primary among other smart home platforms (Google Nest and Apple HomeKit) in a collective imagining of contemporary and future homes.[161] At the intersection of new technology, long-standing labor conflicts, and an increasingly surveillant culture, Alexa generates controversies. By examining the top-ranked posts on the social media site reddit and their comment threads, I have attempted to chart and interpret deliberations regarding Alexa as they occurred in the technology's first years.

To begin this chapter, I specified that the virtual assistant software is distinct from the various hardware which houses it (including Amazon products such as the Echo-line

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[160] u/JRMang, reddit, comment, March 7, 2018,
https://old.reddit.com/r/gadgets/comments/82qx88/amazon_admits_alexa_is_creepily_laughing_at/dvc4ub
m/.

[161] Jon Porter, "HomeKit might be fading, but Apple's not giving up yet," *The Verge*, October 28, 2019,
https://www.theverge.com/2019/10/28/20936292/apple-homekit-hiring-engineers.

of devices, as well as many third-party devices), before providing a brief review of academic literature on Alexa and surveillance (both state and corporate). Next, I detailed the selection procedures which generated ten reddit posts (and their associated comment threads) to serve as texts for analysis toward answering two questions. First, *what are the terms, patterns, and logics in the binarized reddit deliberations of Alexa?* Second, *in what way do redditors* glitch *the deliberation of Alexa?*

To answer the first question, I began by offering an analysis of arguments in defense of Alexa (and by extension Amazon) which regularly employed the terms "connect," "work," and "convenience," as well as entailments, derivations, and synonyms. These terms are generally employed in patterns which emphasize expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) above competing values. Technical rationalism is the cornerstone of the evident pro-Alexa logic on reddit: an Enlightenment complex also including capitalist economic development and liberal consumption. More succinctly, I call this the logic of technological progress, the transhistorical representation of which is turning on the light.

Next, I have analyzed arguments against Alexa to complete an answer to the first of this study's two questions. "Listening" and "labor" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Alexa. These words, as well as synonyms, derivations, and entailments, appear with regularity across the posts, deployed in patterns which resemble the skepticism and criticism maintained by investigative journalists writing about power in public and private institutions. However, redditors deliberate outside of news institutions (where journalists beholden to capital feign editorial independence), allowing them to more vigorously advance a logic

antithetical to corporate interests—the logic of economic justice—which takes shape as "the light of truth."

With the first question answered, I advanced to the second, *in what way do redditors* glitch *the deliberation of Alexa?* Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics—one shamelessly embracing sexual surveillance and the other acknowledging the fear and curiosity contained in ambivalent engagement with the creepy Alexa—I argue reddit has a kynical culture evocative of the life of Diogenes of Sinope. Like Diogenes, reddit users masturbate in the marketplace and bite the wicked as though they were dogs. They streak as though colorful pixels across the static public deliberation (*à la* visual glitches on screen), corrupting it and offering a more complex understanding of how technology emerges and impacts human life. With *glitched* rhetorics, they blaspheme against Alexa the Great, who would have them believe the virtual assistant can offer anything they would desire.

In answering these two questions, it becomes clear that Amazon and U.S. intelligence agencies are the focus of arguments against Alexa, as well as those *glitching* the binarized deliberation. While consumer products like Alexa will necessarily have attachments to such powerful institutions, we can imagine technologies which are neither produced by companies nor regulated (or covertly utilized) by agents of the state. RSS (an acronym for "Really Simple Syndication") is one such technology, an open internet protocol for publishing a variety of media (e.g. blogs, news articles, podcasts) in a format which can be compiled by aggregation services (which may be under the purview of a corporation, such as the Google Podcasts app).[162] Blockchain technology is another.

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[162] Reggie Ugwu, "On Google Podcasts, a Buffet of Hate," *The New York Times*, September 8, 2021, https://www.nytimes.com/2021/03/25/arts/google-podcasts-extremism.html; Mitch Stoltz, "EFF to Appeals

Invented in 2008, blockchains are decentralized legers which through cryptography are, as described by *The Economist*, "a way for people who do not know or trust each other to create a record of who owns what that will compel the assent of everyone concerned."[163] Institutions, such as banks or state regulatory agencies, are therefore rendered unnecessary third parties when trust is replaced by the proof provided by a blockchain.

The most well-known blockchain is the first, devised by an unknown creator of the technology to facilitate creation and transactions of the cryptocurrency Bitcoin. While the notion of a virtual assistant is relatively straightforward, cryptocurrency technology is less so. In the next chapter, I will provide an explanation of Bitcoin as monetary and financial technology, similar to that provided on Alexa at the beginning of this chapter. Afterwards, I will analyze the binarized deliberation of Bitcoin occurring on reddit, as well as how redditors *glitch* that deliberation.

Court: Reverse Legal Gotchas on Ordinary Internet Activities," *Electronic Frontier Foundation*, May 22, 2020, https://www.eff.org/deeplinks/2020/05/eff-appeals-court-reverse-legal-gotchas-ordinary-internet-activities.

[163] The Economist, "The great chain of being sure about things," *The Economist,* October 31, 2015, https://www.economist.com/briefing/2015/10/31/the-great-chain-of-being-sure-about-things.

Chapter 3 – Bitcoin

"A New Electronic Cash System"

On Halloween of 2008, a programmer claiming to have developed "a new

electronic cash system that's fully peer-to-peer, with no trusted third party," distributed a

nine-page white paper outlining the system via The Cryptography Mailing List.[1] The

pseudonymous Satoshi Nakamoto described in the post how a cryptographic process

known as "proof-of-work" would generate new units of currency and maintain a

decentralized record of transactions, preventing "double-spending." This kind of

collectively managed ledger became known as a "blockchain," the first of which

facilitated creation and transaction of "a chain of digital signatures," which Nakamoto

called "an electronic coin."[2] Distinguishing them from derivatives created later, this first

cryptocurrency network and its electronic coins are now both known by the name

Nakamoto gave the "electronic cash system": Bitcoin.

Explorations into the enigmatic nature of money often identify three basic

functions: to serve as a medium of exchange, a unit of account, and a store of value.[3] The

first, that money serves as a medium of exchange, is what technically makes it

"currency," and as Lana Swartz notes, a form of communication frequently overlooked

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[1] Satoshi Nakamoto, "Bitcoin P2P e-cash paper," *The Cryptography Mailing List*, October 31, 2008, https://www.metzdowd.com/pipermail/cryptography/2008-October/014810.html; Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," 2008, accessed August 8, 2022, https://bitcoin.org/bitcoin.pdf.

[2] Nakamoto, "Bitcoin," 2.

[3] Nigel Dodd, *The Social Life of Money* (Princeton, NJ: Princeton University Press, 2014); David Golumbia, *The Politics of Bitcoin: Software as Right-Wing Extremism* (Minnesota, MN: University of Minnesota Press, 2016); Saifedean Ammous, *The Bitcoin Standard: The Decentralized Alternative to Central Banking* (Hoboken, NJ: Wiley, 2018).

by communication and media studies scholars.[4] The initial goal of Bitcoin—as written by Nakamoto—was to allow exchange on the internet as though using physical currency (e.g. U.S. dollar bills and coins), without passing through a network of payment processors (e.g. PayPal, Visa) and banks. Nakamoto assembled various cryptographic methods developed in previous decades (toward digital timestamping, preventing denial-of-service attacks, and encrypting communications) into the Bitcoin system, strengthening the currency's security and disabling the potential for counterfeiting coins via digital duplication.[5] Hence the term "cryptocurrency." Nakamoto created the first block of the Bitcoin blockchain on January 3, 2009, in the process generating 50 Bitcoins via the proof-of-work cryptographic process, which (because of a comparison to "gold miners expending resources to add gold to circulation" in the original white paper) would become known as "mining" Bitcoin.[6] This mining process features difficulty adjustment based on the total compute power of the network, so that blocks are generated approximately every 10 minutes. The reward in Bitcoin for generating a block decreases over time (halving every 210,000 blocks), and only a total of 21 million Bitcoin can ever be mined.[7]

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[4] Lana Swartz, *New Money: How Payment Became Social Media* (New Haven, CT: Yale University Press, 2020), 3, 5-6; Ronald Walter Greene, "Rhetorical Capital: Communicative Labor, Money/Speech, and Neo-Liberal Governance," *Communication and Critical/Cultural Studies* 4, no. 3 (2007): 327-331, https://doi.org/10.1080/14791420701472866.

[5] Nakamoto, "Bitcoin"; Nathaniel Popper, *Digital Gold: Bitcoin and the Inside Story of the Misfits and Millionaires Trying to Reinvent Money* (New York, NY: HarperCollins, 2016); Dodd, *The Social Life of Money,* 362.

[6] Benjamin Wallace, "The Rise and Fall of Bitcoin," *Wired*, November 23, 2011, https://www.wired.com/2011/11/mf-bitcoin/; Nakamoto, "Bitcoin," 4.

[7] Transaction fees are also awarded, which would ostensibly incentivize mining to continue even after all the Bitcoins have been mined.

The utility of Bitcoin, as described by Nakamoto, was in avoiding fraud and the need for mediating payment disputes, while enabling non-reversible transactions.[8] Further, the developer suggested that the system would enhance privacy by separating identities from a user's public key—strings of letters and numbers which serve as an address (e.g. 1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa)—which can only be controlled via a cryptographically determined private key.[9] This makes identity on the Bitcoin network pseudonymous, and there may be the potential for linking a user's identity with their public key and associated transactions.[10] For example, the aforementioned public key was awarded the first 50 Bitcoins in Block 0, linking it to Nakamoto (the traditional pseudonym—rather than advanced cryptography—preventing further identification). Unlike physical currency, cryptocurrency necessarily emits digital residue which precludes absolute privacy. On the other hand, physical currency must travel by hand and can be forcibly seized, whereas Bitcoin can travel across vast distances on the internet and only accessed by the bearer of a private key.[11] In 2018,

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[8] Nakamoto, "Bitcoin," 1.

[9] Nakamoto, "Bitcoin," 6; "Address: 1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa | Blockchain Explorer," *Blockchain.com*, accessed August 8, 2022, https://www.blockchain.com/btc/address/1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa.

[10] Golumbia, *The Politics of Bitcoin*, 27; Nicole Perlroth, Erin Griffith and Katie Benner, "Pipeline Investigation Upends Idea That Bitcoin Is Untraceable," *The New York Times*, June 9, 2021, https://www.nytimes.com/2021/06/09/technology/bitcoin-untraceable-pipeline-ransomware.html; Institute for Security and Technology, *Combatting Ransomware: A Comprehensive Framework for Action,* April 2021, https://securityandtechnology.org/wp-content/uploads/2021/04/IST-Ransomware-Task-Force-Report.pdf; This Institute for Security and Technology report notes that ransomware criminals use methods such as "chainhopping" to other cryptocurrencies after initially receiving Bitcoin and "mixing services" which blend in legal transactions in order to hide their tracks (14).

[11] John O'Donnell, "Police seize $60 million of bitcoin! Now, where's the password?" *Reuters*, February 5, 2021, https://www.reuters.com/article/us-crypto-currency-germany-password/police-seize-60-million-of-bitcoin-now-wheres-the-password-idUSKBN2A511T; For example, though German police seized 1,700 Bitcoins from a criminal in 2021, without the private key they weren't able to completely confiscate the cryptocurrency.

Twitter co-founder and former CEO Jack Dorsey claimed, "The world ultimately will have a single currency, the internet will have a single currency. I personally believe that it will be bitcoin."[12] Block, the financial technology company formerly named Square, of which Dorsey is CEO, offers a Bitcoin exchange service in its Cash App smartphone application toward enabling that vision of payment in the future.[13]

The Bitcoin protocol is an elegant, technical bricolage, but it suffers from two deficiencies when scaled up from the small band of early enthusiasts. The first is speed. Whereas the Visa payment network processes thousands of transactions per second, only about seven Bitcoin transactions are possible per second as a result of each block being produced approximately every 10 minutes and limited to 1 MB in size.[14] This is a problem which might be solved by changes to the core software (requiring a mass of miners to vote by updating to the new version), but has to this point only been mitigated by changes which allow a second layer atop the Bitcoin network to handle transactions more quickly (such as the Lightning Network).[15]

The second problem of Bitcoin at scale is the energy expenditure of mining. Though it appears impossible to accurately calculate the energy and resource consumption of exchange in many traditional currencies, Bitcoin suffers from a design

[12] Chaim Gartenberg, "Twitter CEO: Bitcoin will be the world's 'single currency' in 10 years," *The Verge*, March 21, 2018, https://www.theverge.com/2018/3/21/17147574/twitter-ceo-bitcoin-jack-dorsey-square-interview-currency-10-years; Richard Lawler, "Twitter CTO Parag Agrawal replaces Jack Dorsey as CEO," *The Verge,* November 29, 2021, https://www.theverge.com/2021/11/29/22807651/jack-dorsey-steps-down-twitter-ceo-parag-agrawal-replacement.

[13] Jay Peters, "Jack Dorsey's Square is changing its name to Block," *The Verge*, December 1, 2021, https://www.theverge.com/2021/12/1/22812752/square-changing-name-block-jack-dorsey-cash-app-tidal-crypto-spiral.

[14] Popper, *Digital Gold,* 346.

[15] "Lightning Network," accessed August 8, 2022, https://lightning.network/.

issue which makes electricity waste on the network potentially limitless. Nakamoto and other initial miners were only using a handful of computers to generate the first coins, but large mining operations would eventually emerge, filling large facilities with machines and cooling equipment which draw sizeable amounts of energy from electric utilities.[16] As is described in Nathaniel Popper's popular history of Bitcoin, mining was originally conducted on a computer's CPU, before miners began using graphics processing units (GPUs, designed for rendering video games among other uses), and eventually application-specific integrated circuits (ASICs)—silicon chips designed for the sole purpose of Bitcoin mining.[17] Yet in spite of an influx of processing power, the difficulty adjustment of Bitcoin's proof-of-work cryptography ensures that each new 1 MB block is still produced approximately every 10 minutes. While the energy expenditure ballooned, it did not lead to increased transaction speed or additional Bitcoins entering circulation. In 2021, Cambridge University researchers found the Bitcoin network expended approximately 121.36 terawatt-hours (TWh) of electricity per year, outpacing that of Argentina (121 TWh).[18] Further, Dutch economist Alex de Vries has noted that even if renewable sources of energy were to be utilized (replacing what he identified as the longtime, prominent mining fuel of cheap Chinese coal before the country banned cryptocurrencies in 2021), there would still be a significant e-waste problem as mining

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[16] Jon Huang, Claire O'Neill and Hiroko Tabuchi, "Bitcoin Uses More Electricity Than Many Countries. How Is That Possible?" *The New York Times*, September 3, 2021, https://www.nytimes.com/interactive/2021/09/03/climate/bitcoin-carbon-footprint-electricity.html.

[17] Popper, *Digital Gold*.

[18] Cristina Criddle, "Bitcoin consumes 'more electricity than Argentina,'" *BBC News*, February 10, 2021, https://www.bbc.com/news/technology-56012952.

hardware running 24/7 wears out or simply becomes outdated.[19] As de Vries notes, only

with an alternative to proof-of-work cryptography—such as proof-of-stake, which

substitutes token holdings for compute power—can Bitcoin's electricity consumption be

reduced to an amount comparable of its early days.[20] If Bitcoin could once be understood

with the analogy "imagine if keeping your car idling 24/7 produced solved Sudokus," the

industrialization of Bitcoin mining without advancing from proof-of-work cryptography

has led to a transaction network that would be more effectively envisioned by imagining

coal power plants across the globe working to complete the exact same number of

puzzles as in those early days.[21] "Bitcoin, it's like real money except with outages and

scaling problems," tweeted @internetofshit in December 2017.[22]

Regarding Bitcoin's function as currency, Paul Krugman has repeatedly

lambasted it in the pages of *The New York Times*, and recounts asking enthusiasts, "What

problem does this technology solve? What does it do that other, much cheaper and easier-

to-use technologies can't do just as well or better?"[23] Despite one programmer's famed

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[19] Alex de Vries, "Renewable Energy Will Not Solve Bitcoin's Sustainability Problem," *Joule* 3, no. 4 (2019): 893–898, https://doi.org/10.1016/j.joule.2019.02.007; Alex de Vries, "Amidst avid greenwashing, Xinjiang blackout exposes the horrid reality of Bitcoin mining," *Digiconomist*, April 24, 2021, https://digiconomist.net/amidst-avid-greenwashing-xinjiang-blackout-exposes-the-horrid-reality-of-bitcoin-mining/; Grady McGregor, "China already banned crypto mining. Now it's cracking down on any holdouts," *Fortune*, November 17, 2021, https://fortune.com/2021/11/17/china-bitcoin-mining-ban-crypto-holdouts-ether-solana-price/.

[20] Justine Calma, "Renewable energy won't make Elon Musk love bitcoin again," *The Verge*, May 13, 2021, https://www.theverge.com/2021/5/13/22434617/renewable-energy-bitcoin-pollution-tesla-elon-musk.

[21] Rachel Withers, "Gold, Tulip Bulbs, Rai Stones?" *Slate*, August 30, 2018, https://slate.com/technology/2018/08/gold-tulip-bulbs-rai-stones-whats-the-best-analogy-for-cryptocurrency.html.

[22] @internetofshit, "Bitcoin, it's like real money except with outages and scaling problems", Twitter, tweet, December 8, 2017, 12:43 PM, https://twitter.com/internetofshit/status/939218990043365377?s=20&t=FReBWEe9JBi616uGtZA7kQ.

[23] Paul Krugman, "Technobabble, Libertarian Derp and Bitcoin," *The New York Times*, May 20, 2021, https://www.nytimes.com/2021/05/20/opinion/cryptocurrency-bitcoin.html; Paul Krugman, "Bubble, Bubble, Fraud and Trouble," *The New York Times*, January 29, 2018,

purchase of two Papa John's pizzas for 10,000 Bitcoins in May 2010 (notably by way of

a third party who used a credit card for the actual purchase), Krugman notes that over a

decade after the invention of Bitcoin it had not become a widely accepted medium of

exchange: "nowadays we use Bitcoin to buy houses and cars, pay our bills, make

business investments, and more. Oh, wait. We don't do any of those things."[24] Instead, it

has been associated (like $100 bills) with illegal transactions, from drug purchases on the

Silk Road dark website (2011-2013) in Bitcoin's early years to ransom payments

demanded by hackers in the cryptocurrency (e.g. the Colonial Pipeline attack which led

to gasoline shortages throughout the southeastern U.S. in 2021).[25] As David Golumbia

notes, Bitcoin is fundamentally cyberlibertarian, influenced by far-right economists—

including Ludwig von Mises, Murray Rothbard, Friedrich Hayek, and Milton

Friedman—and inherently resistant to regulation in pursuit of free exchange beyond the

purview of states.[26] At the extreme, it is aligned with the anarcho-capitalist Rothbard's

claim, "'We' are not the government; the government is not 'us.' The government does

https://www.nytimes.com/2018/01/29/opinion/bitcoin-bubble-fraud.html; Paul Krugman, "Transaction Costs and Tethers: Why I'm a Crypto Skeptic," *The New York Times*, July 31, 2018, https://www.nytimes.com/2018/07/31/opinion/transaction-costs-and-tethers-why-im-a-crypto-skeptic.html.

[24] Wallace, "The Rise and Fall of Bitcoin"; Krugman, "Technobabble, Libertarian Derp and Bitcoin."

[25] Joshuah Bearman, "The Rise & Fall of Silk Road," *Wired*, April 2015, https://www.wired.com/2015/04/silk-road-1/; William Turton, Michael Riley, and Jennifer Jacobs, "Colonial Pipeline Paid Hackers Nearly $5 Million in Ransom," *Bloomberg*, May 13, 2021, https://www.bloomberg.com/news/articles/2021-05-13/colonial-pipeline-paid-hackers-nearly-5-million-in-ransom?srnd=premium; Rachel Monroe, "How to Negotiate with Ransomware Hackers," *The New Yorker,* May 31, 2021, https://www.newyorker.com/magazine/2021/06/07/how-to-negotiate-with-ransomware-hackers.

[26] Golumbia, *The Politics of Bitcoin,* 7.

not in any accurate sense 'represent' the majority of the people."[27] If "it is forbidden to forbid" serves as an illuminating slogan of left anarchism, we can imagine anarcho-capitalists as free only to exchange freely, with a state in place merely to be active only in ensuring economic inaction by the state.

As Golumbia argues, Bitcoiners articulate an opposition to the concentration of corporate power via state neoliberalism (e.g. economist and Bitcoin enthusiast Saifedean Ammous regards Friedman's monetarism as interventionist and therefore pseudo-libertarian) even as their project ultimately functions as a different means to the same end.[28] The unlikely success of Bitcoin, according to Mike Beggs, "would leave capitalist social relations intact, but blinder and harsher."[29] I would add that left anarchism is burdened by contradictions which would lead to a similar self-defeating result, evident beneath superficial, radical posturing. Of course, anarchism and authoritarianism are not the only two types of governance. They are the extremes (no state vs. all-encompassing state) which polarize in hyperbolic and binarized online deliberation of controversial technologies like Bitcoin. Democracy—whether representative or direct, but less so in capitalist than socialist societies (as the latter introduces democracy into the workplace)—ideally allows eluding tyranny of authoritarianism and the lawlessness which accompanies the extreme freedom of anarchism.

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[27] Murray Rothbard, *Egalitarianism as a Revolt against Nature and Other Essays* (Auburn, AL: Mises Institute, 1974), 56, quoted in David Golumbia, *The Politics of Bitcoin: Software as Right-Wing Extremism* (Minnesota, MN: University of Minnesota Press, 2016), 10.

[28] Ammous, *The Bitcoin Standard*; Golumbia, *The Politics of Bitcoin*.

[29] Mike Beggs, "The Dumb Money," *Jacobin*, April 10, 2018, https://www.jacobinmag.com/2018/04/bitcoin-cryptocurrency-monetary-system.

Instead of reform toward realizing that ideal of government of the people, by the people, and for the people, Bitcoiners most often aim to sidestep the irredeemable state altogether by technical means. In this mode of anti-politics, substituting private expertise for participatory democracy, "Both how we do things and who we trust to do them have been revised […] We are promised that an anonymous software engineer with a computer can successfully and ethically redesign the fundamental building block of our economic infrastructure, so we contemplate investing in Bitcoin," as Damien Smith Pfister and Misti Yang write.[30] Notably, Bitcoin was developed amidst a widespread recession in the U.S. which dramatically shaped how people relate to technology and the economic conditions of the following decade, compounding the problems already caused by late 20th century deindustrialization. Nakamoto included a short line of text in the Bitcoin genesis block, decipherable from the hex code, referring to the front-page article of the day's *The London Times* and perhaps the problems his project ambitiously intended to solve: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks."[31] This is accurate identification of a problem for which Bitcoin would become an inadequate solution. Bitcoin merely substitutes financial expertise of government agents for the technological expertise of antigovernment actors, both lacking a popular movement even as the burdens of their doomed schemes (e.g., economic and climate crises) will inevitably fall upon the people they claim to serve or liberate, respectively.

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[30] Damien Smith Pfister and Misti Yang, "Five theses on technoliberalism and the networked public sphere," *Communication and the Public* 3, no. 3 (2018): 251, https://doi.org/10.1177/2057047318794963.

[31] Joshua Davis, "The Crypto-Currency," *The New Yorker,* October 3, 2011, https://www.newyorker.com/magazine/2011/10/10/the-crypto-currency; Francis Elliott and Gary Duncan, "Chancellor Alistair Darling on brink of second bailout for banks," *The London Times*, January 3, 2009, https://www.thetimes.co.uk/article/chancellor-alistair-darling-on-brink-of-second-bailout-for-banks-n9l382mn62h.

A shining moment in Bitcoin's history was when the technology facilitated making donations to WikiLeaks while the organization was subject to lengthy private sector sanctions (by Bank of America, VISA, MasterCard, PayPal, and Western Union) following release of confidential U.S. diplomatic cables in late 2010, without which it has been suggested the organization wouldn't have been able to continue.[32] In addition, Bitcoin donations have benefitted the legal defense fund of Edward Snowden.[33] In these examples, use of the cryptocurrency can be understood as a tool toward supporting reform rather than destruction of the state, revealing its military and security apparatuses' hidden excesses and rendering them accountable to the people they purport to serve. But aside from such instances, Bitcoin is more often a medium of exchange that is merely hostile to government regulation, intervention, and existence. In this way, we can understand the cryptocurrency as produced by, and with the contradictions of, a technological utopianism prominent at the turn of the millennium which was heavily influenced by the preceding counterculture of the 1960s.[34] If Bitcoin had existed in that earlier era, we might expect to see many more purchases of LSD with it than donations to the legal defense fund of Pentagon Papers whistleblower Daniel Ellsberg.

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[32] Scott Shane and Andrew W. Lehren, "Leaked Cables Offer Raw Look at U.S. Diplomacy," *The New York Times*, November 28, 2010, https://www.nytimes.com/2010/11/29/world/29cables.html?_r=1&hp; "Banking Blockade," *WikiLeaks*, June 28, 2011, https://wikileaks.org/Banking-Blockade.html; Patrick Howell O'Neill, "Massive returns on early Bitcoin investment helped WikiLeaks survive," *Daily Dot*, July 30, 2014, https://www.dailydot.com/debug/wikileaks-google-assange-bitcoin-8000-percent/.

[33] Joe Kloc, "How WikiLeaks and Edward Snowden cashed in on the Bitcoin boom," *Daily Dot*, November 20, 2013, https://www.dailydot.com/debug/edward-snowden-wikileaks-bitcoin/.

[34] Douglas Rushkoff, *Cyberia: Life in the Trenches of Hyperspace* (New York, NY: HarperCollins, 1994); Finn Brunton, *Digital Cash: The Unknown History of the Anarchists, Utopians, and Technologists Who Created Cryptocurrency* (Princeton, NJ: Princeton University Press, 2019).

Beyond serving as an anti-government medium of exchange, Bitcoin's capability

to serve as a unit of account and store of value should also be considered. To be a unit of

account refers to money's ability to quantify value after it has become widely used as a

medium of exchange.[35] For example, the U.S. dollar can be understood as the hegemonic

unit of account in both local and global examples. When a U.S. worker sells their labor at

$15 per hour, they understand the value of those dollars as related to the prices of goods

which are relatively stable (e.g., ~$3.50 for a gallon of milk). Whether in physical

currency or merely as amounts listed in a bank account, the U.S. dollar is not only a

medium of exchange, but a consistent measurement. At the global level, Krugman

describes the macroeconomic function of U.S. dollars:

> When a bank wants to exchange Malaysian ringgit for Peruvian sol, it normally
> trades ringgit for dollars, then dollars for sol. A lot of world trade is also invoiced
> in dollars — that is, the contract is written in dollars and the settlement is also in
> dollars. And dollars account for about 60 percent of official foreign exchange
> reserves: assets in foreign currencies that governments hold mainly so they can
> intervene to stabilize markets if necessary.[36]

Just as the U.S. worker recognizes the dollar's utility as a quantifying technology, so to

do governments, banks, and merchants around the globe. It is not uncommon to

encounter center-right economists heralding this fact as evident of the U.S.'s positive

influence on unstable economies and the people living under the control of authoritarian

states. Bitcoin proponents extend this further, advocating the cryptocurrency's similar

potential for many beyond U.S. borders, but without need for its issuance and backing by

the state.

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[35] Ammous, *The Bitcoin Standard*, 8; Golumbia, *The Politics of Bitcoin,* 50.

[36] Paul Krugman, "Wonking Out: The Greenback Rules. So What?" *The New York Times*, May 28, 2021, https://www.nytimes.com/2021/05/28/opinion/us-dollars-currency.html.

However, Bitcoin has long suffered a volatility which makes it unusable as a unit of account. I hesitate even writing a current value for one Bitcoin in U.S. dollars here, as crashes and rebounds occur with stochastic frequency. I share Jon Baldwin's "sense that every sentence that begins to be written about bitcoin is superseded by events before it is even finished."[37] This is not to say that the cryptocurrency can't be used as a medium of exchange as described above, but that it must be done so in a parasitic relationship with the dollar serving as a unit of account. For example, while a professional may be wary of taking a position with an annual salary of 2 Bitcoin paid in monthly increments of 1/6 of a Bitcoin, they are likely to be more receptive to a $80,000 salary paid each month in Bitcoin at concurrent exchange rates. Further, this reliance on the dollar as the unit of account is apparent even when websites such as Silk Road price goods in units of Bitcoin, but those prices fluctuate in relation to the dollar.[38] At the 2014 Coins in the Kingdom Bitcoin conference held in an Orlando hotel just outside of Disney World, one merchant's handwritten sign dispensed with any illusion that the cryptocurrency (then equivalent to $333.11) served as a unit of account: "Mugs, $11.95, We accept Bitcoin."[39] In sum, Bitcoin can't serve as a unit of account because it may dramatically rise or fall in value, making stable pricing of goods without reference to the dollar impossible.

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[37] Jon Baldwin, "In digital we trust: Bitcoin discourse, digital currencies, and decentralized network fetishism," *Palgrave Communications* 4, (2018): 9, www.doi.org/10.1057/s41599-018-0065-0; "Bitcoin (BTC) Price, Charts, and News | Coinbase," accessed August 8, 2022, https://www.coinbase.com/price/bitcoin; A current value for one Bitcoin in U.S. dollars can likely be found at Coinbase's website.

[38] Golumbia, *The Politics of Bitcoin,* 51-52.

[39] Sam Biddle, "Magical Thinking: Bitcoin Gathers at Disney," *Gawker,* December 1, 2014, https://gawker.com/magical-thinking-bitcoin-gathers-at-disney-1644521971.

In considering the third function of money, that it can serve as a store of value, three theories regarding the fundamental nature of money are illuminating. First, the commodity theory of money posits that the value of money is derived from some intrinsic worth of an object.[40] Ammous points to seashells, cattle, and salt as commodities used in antiquity as media of exchange, before societies transitioned to using metals as money (in part because they are more durable and divisible than other commodities, such as cattle).[41] Gold is the most superior of such metals, and while paired with metals of lesser value for centuries, it eventually came to serve as the singular commodity which backed paper currencies serving as convenient media of exchange. "While gold circulates because it has value, paper has value because it circulates," Marx claimed in the era of the gold standard.[42]

In what would become known as the Nixon Shock, President Richard Nixon effectively ended the U.S. dollar's last connection to gold with a series of monetary policy changes in 1971.[43] An understanding of money's value as decreed by the state, the fiat theory of money, had been advocated long before by the English economist John Maynard Keynes, who considered the gold standard to be "outworn dogma" and "remote from the spirit and requirement of the age [1924]."[44] Monetary policy shifted

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[40] Ole Bjerg, "How is Bitcoin Money?" *Theory, Culture & Society* 33, no. 1 (2016): 53-72, https://doi.org/10.1177/0263276415619015.

[41] Ammous, *The Bitcoin Standard*, 14-18.

[42] Karl Marx, *A Contribution to the Critique of Political Economy* (Charleston, SC: BiblioLife, LLC., 2009), 160, quoted in Nigel Dodd, *The Social Life of Money* (Princeton, NJ: Princeton University Press, 2014), 58.

[43] Lewis E. Lehrman, "The Nixon Shock Heard 'Round the World," *The Wall Street Journal*, August 15, 2011, https://www.wsj.com/articles/SB10001424053111904007304576494073418802358.

[44] Bjerg, "How is Bitcoin Money?"; Alexander Dana Noyes, "Mr. Keynes on the Mysteries of American Finance; The Gold Standard 'a Barbarous Relic,' and Other Opinions in His 'Monetary Reform,'" *The New*

incrementally away from gold over the next five decades, and in 1972 Nixon would state, "We are all Keynesians now."[45]

This shift is crucial in understanding a key design of the Bitcoin system: the limit of supply to 21 million coins. Despite Nixon's institution of wage and price controls, right-wing economists argue the shift to fiat money ultimately "ushered in a decade of inflation and economic stagnation" (i.e., the 1970s "stagflation"). Inflation is, Golumbia argues, misunderstood as an increase in the money supply by some right-wing economists, rather than as an increase in prices (which may be unrelated to increases in money supply).[46] Ammous (the Bitcoin enthusiast and economist influenced by Mises, Rothbard, and Hayek) articulates this perspective in more detail, claiming that while gold is "hard" money, in that it is difficult to add more to circulation, paper is "easy."[47] As a result of this "hardness," gold supposedly resists debasement and subsequent inflation of the sort he blames Keynes for in the 20th century, when the U.S. dollar became fiat money with no relation to gold and therefore able to be printed "easily." This conceptualization has proven pervasive, as evidenced by the circulation of a relevant meme on Twitter and reddit in 2020 (Figure 13).

York Times, March 30, 1924, https://www.nytimes.com/1924/03/30/archives/mr-keynes-on-the-mysteries-of-american-finance-the-gold-standard-a.html.

[45] Paul Lewis, "Nixon's Economic Policies Return to Haunt the G. O. P.," *The New York Times*, August 15, 1976, https://www.nytimes.com/1976/08/15/archives/nixons-economic-policies-return-to-haunt-the-gop-nixons-economic.html.

[46] Golumbia, *The Politics of Bitcoin,* 15-16.

[47] Ammous, *The Bitcoin Standard*.

Figure 13: Money Printer Go Brrr[48]

For the so-called "goldbugs," Bitcoin is imagined as a return to "hard" money (i.e.,

commodity money). Like mining gold, mining Bitcoin is resource intensive (but

Ammous and others consider the environmental cost described above to be worth the

cryptocurrency's benefits) and only a finite amount can ever be introduced into

circulation.[49] Recognizing Bitcoin's limitations as a medium of exchange and unit of

account, he suggests an alternative role for the cryptocurrency: to replace the dollar as a

new global reserve currency, which would back the currencies of various states. Ammous

names his proposed scheme "the Bitcoin standard" and titled his influential book the

same.[50]

  The assumption that inflation is the pre-defined result of a central bank printing

money, therefore increasing the supply of money, makes sense logically. We can imagine

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[48] Know Your Meme, "Money Printer Go Brrr," *Know Your Meme*, November 8, 2020,
https://knowyourmeme.com/memes/money-printer-go-brrr.

[49] Dodd, *The Social Life of Money,* 362-363.

[50] Ammous, *The Bitcoin Standard*.

that an increase in the supply of money while supply of goods stays constant would lead to more demand and increase prices. However, the understanding shared by mainstream economists is there are many other factors which spur or discourage spending (such as interest rates), and increases in the money supply in recent decades can't be causally linked to inflation.[51] One might consider population growth as requiring additional money in circulation but also increasing the supply of goods (as was the case of the expanding U.S. economy in the late 19th century), or the need to add money as material currency degrades or is lost. With its fixed supply, Bitcoin with a lost private key or an owner who dies without transferring their private key beforehand cannot be reintroduced to circulation.[52] Further, for the most part the money supply isn't increased by a central bank printing money (a misunderstanding surveys have indicated is shared by both politicians and graduate students in economics), but as credit money issued by commercial banks (e.g. merely increasing the numerical value of a bank customer's account).[53]

The credit theory of money points not to metals or states as the backing of money's value, but the social relationship between creditors and debtors (e.g., a commercial bank and a bank customer taking out a loan). With this perspective one might understand money to be a process rather than a thing, as articulated by the sociologist

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[51] Paul Krugman, "Krugman Wonks Out: Return of the Monetary Cockroaches," *The New York Times*, May 13, 2021, https://www.nytimes.com/2021/05/13/opinion/cryptocurrency-inflation.html.

[52] Nathaniel Popper, "Lost Passwords Lock Millionaires Out of Their Bitcoin Fortunes," *The New York Times*, January 14, 2021, https://www.nytimes.com/2021/01/12/technology/bitcoin-passwords-wallets-fortunes.html; Such stories are common, among them one of a programmer forgetting his password to a hard drive containing a private key to an address holding 7,002 Bitcoin.

[53] Dodd, *The Social Life of Money,* xii-xiii; Bjerg, "How is Bitcoin Money?" 65.

Nigel Dodd.[54] The credit theory recognizes, in the words of Georg Simmel, that money is a "claim upon society," where the question of if cash is backed by metals or not is irrelevant in practice, and society need not be defined as anything more than "an inner bond between men."[55] Swartz names such a society of exchange a "transactional community," where members do not have to share citizenship but only the belief that their money has a future.[56] "All money is a technology of future-making," writes Swartz, continuing, "We only accept a particular money as payment because we think it will be accepted tomorrow by someone else."[57] So even as Bitcoin was designed as a "technology of mistrust" with cryptography and the blockchain eliminating the need for a trusted third party, it nevertheless requires a network of users who place their trust in the Bitcoin protocol and community.[58] If Bitcoin is understood as credit money, its production lacks an individual debtor (like the credit money issued by commercial banks), but holds a claim upon the Bitcoin transactional community.

Divorced from its intended function as a medium of exchange by encoded deflation and inelasticity, Bitcoin becomes a speculative asset, even appearing to many as a high-tech Ponzi scheme.[59] This perspective is shared by economic commentators across the ideological spectrum, including Warren Buffett who in 2020 told CNBC,

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[54] Dodd, *The Social Life of Money,* 294.

[55] Georg Simmel, *The Philosophy of Money* (New York, NY: Routledge, 2011), 187, 190.

[56] Swartz, *New Money,* 16, 18.

[57] Lana Swartz, "Bitcoin As A Meme And A Future," *Noēma,* February 11, 2021, https://www.noemamag.com/bitcoin-as-a-meme-and-a-future/.

[58] Dodd, *The Social Life of Money,* 362.

[59] Dodd, *The Social Life of Money,* 368.

"Cryptocurrencies basically have no value and they don't produce anything […] I don't have any cryptocurrency and I never will."[60] In an odd coincidence, Buffett describes Bitcoin as Marx understood speculative lending with only indirect relation to production: as fictitious capital.[61] While the elder titan of finance in Omaha may be bearish on Bitcoin and other cryptocurrencies, prominent tech CEOs in the San Francisco Bay Area have been enthusiastic supporters. The financial technology company Block (formerly named Square) has made multiple large investments in the cryptocurrency, yet CEO Jack Dorsey's enthusiasm appears mild and steady when compared to that of the self-proclaimed "Technoking of Tesla," Elon Musk.[62] Musk began intensely commenting on Bitcoin in 2020 (as well as Dogecoin, a cryptocurrency created as a joke), in a manner resembling the zeal of a new religious convert.[63] Like Block, Tesla made massive purchases of Bitcoin in 2021, later selling some and shoring up profits from its car sales.[64] Despite such fanaticism and Bitcoin's price volatility, a skeptic might recognize that the cryptocurrency's worth as measured in U.S. dollars has dramatically increased over the decade with booms occurring about every four years (in 2013, 2017, & 2021).

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[60] Jessica Bursztynsky, "Warren Buffett: Cryptocurrency 'has no value' – 'I don't own any and never will,'" *CNBC*, February 24, 2020, https://www.cnbc.com/2020/02/24/warren-buffett-cryptocurrency-has-no-value.html.

[61] Dodd, *The Social Life of Money,* 56-57.

[62] Gartenberg, "Twitter CEO: Bitcoin will be the world's 'single currency' in 10 years"; Nick Statt, "Square goes even bigger on bitcoin with a new $170 million investment," *The Verge*, February 23, 2021, https://www.theverge.com/2021/2/23/22297935/square-bitcoin-purchase-170-million-investment-cryptocurrency; Chris Isidore, "Elon Musk is now 'Technoking' of Tesla. Seriously," *CNN Business*, March 15, 2021, https://www.cnn.com/2021/03/15/investing/elon-musk-technoking-of-tesla/index.html.

[63] John McCrank, "Elon Musk on crypto: to the mooooonnn! And back again," *Reuters,* May 13, 2021, https://www.reuters.com/technology/elon-musk-crypto-mooooonnn-back-again-2021-05-13/.

[64] Lora Kolodny, "Tesla's bitcoin speculation helped boost profits by more than $100 million in Q1," *CNBC*, April 26, 2021, https://www.cnbc.com/2021/04/26/teslas-bitcoin-speculation-helped-boost-profits-this-quarter.html.

As an exaggerated example, if the 10,000 Bitcoins used to buy pizza in May 2010 had

been held over the long term, their value would have increased from ~$40 to a sum of

~$637,295,000 in April 2021.[65]

Bitcoin and a variety of derivative cryptocurrencies, blockchain systems, and

related services have become widely discussed online with attention to their impact on

the financial sector of the economy, as well as their political and cultural significance.[66]

With the above understanding of the technology, I intend to examine rhetorics of the

online deliberation of Bitcoin as it has appeared on reddit.[67] Put differently, I aim to

answer two questions. First, *what are the terms, patterns, and logics in the binarized*

reddit deliberations of Bitcoin? Second, *in what way do redditors* glitch *the deliberation*

of Bitcoin?

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[65] John Biggs, "May 22 Is Bitcoin Pizza Day," *TechCrunch*, May 21, 2014,
https://techcrunch.com/2014/05/21/may-22-is-bitcoin-pizza-day/; Ryan Browne, "Bitcoin hits new all-time
high above $63,000 ahead of Coinbase debut," *CNBC*, April 13, 20121,
https://www.cnbc.com/2021/04/13/bitcoin-hits-new-all-time-high-above-62000-ahead-of-coinbase-
debut.html.

[66] Steven Johnson, "Beyond the Bitcoin Bubble," *The New York Times Magazine,* January 16, 2018,
https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html; Erik Newton, "Urbit for
Normies," February 11, 2020, https://urbit.org/blog/urbit-for-normies; Daniel Kuhn, "Web 3 Is Where the
Young People Are," *CoinDesk*, October 5, 2021, https://www.coindesk.com/tech/2021/10/05/web-3-is-
where-the-young-people-are/; In the late 2010s & early 2020s, a growing number of blockchain enthusiasts
have promoted the decentralized structure as not merely limited to cryptocurrency but as having the
potential to undergird a next era for much of the Internet. Referred to as "Web3," this stage would eclipse
the social media company dominated Web 2.0 period as centralized platforms have long ago abandoned
their early 2000s cyberoptimist ideals in pursuit of profit at the expense of users, which will lead to
increasing regulation as a result. On the other hand, it may just be a death rattle of Web 1.0.

[67] u/fullforce098, "And seeing as how Bitcoin is, ya know, internet based, and used mostly by anonymous
people on the internet, it makes sense meaningful discussion of it..." reddit, comment, January 16, 2018,
https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/dsrn3e7
/; reddit is an appropriate text for the analysis of Bitcoin deliberation. As one redditor puts it: "seeing as
how Bitcoin is, ya know, internet based, and used mostly by anonymous people on the internet, it makes
sense meaningful discussion of it would happen on a place like Reddit or some other anonymous
discussion-oriented site."

To select as best possible the most visible deliberations on reddit about Bitcoin, ostensibly those which were encountered by the most visitors to the site, I have searched the site for ten posts that include "Bitcoin" in the title, included text, or hosting subreddit name (e.g. r/Bitcoin), and are focused specifically on the cryptocurrency rather than tangential topics. The "Top" sorting method was used to ensure that posts with the greatest numerical value as a result of the "upvote-downvote" process on the platform are selected. A similar search for the shortened currency code "BTC" was conducted, but only yielded results with lower total points than the tenth post from searching for "Bitcoin." The "Top" sorting method was also used to identify the most visible comments within the extensive threads attached to each post.

A handful of posts that appear when searching for "Bitcoin" are not pertinent to my analysis of binary and *glitched* rhetorics. For example, among the top-ranked posts is a February 2021 text post by redditor u/ilovecaptaincrunch, who in a denunciation of Elon Musk and his supporters makes only passing reference to Bitcoin: "This shits really annoying on reddit too, 'eLoN mUsK is BeTtInG 100 MillIon To LoWeR cArBon EmmIsons.', yet he hasn't given his employees a 401(k) option in three years but now suddenly has 1 billion dollars to invest in bitcoin?"[68] Similarly, two high-ranked cybersecurity posts make brief reference to Bitcoin as a payment method without further

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[68] u/ilovecaptaincrunch, "Elon Musk is not a humble billionaire on our side," reddit, post, February 9, 2021, https://www.reddit.com/r/TrueOffMyChest/comments/lfz0io/elon_musk_is_not_a_humble_billionaire_on_our_side/.

consideration.[69] As these posts and others don't spur deliberation of the cryptocurrency in attached comment threads, they have been filtered from this study.

This leads to a list of ten posts (Appendix B), which includes the title, "upvote-downvote" point value, date, number of comments, username, subreddit name, and a screenshot. As reddit's user interface was updated on April 2nd, 2018, screenshots of posts made before that date come from "old.reddit.com" where the previous user interface can still be found.[70]

<div align="center">Proponent – Prosperity Technology</div>

As in the case of Alexa, the top ranked reddit posts on Bitcoin are largely critical of the cryptocurrency, pointing to problems of internal design or external impact. However, reddit has long been an important platform for Bitcoin advocacy (I can remember being initially introduced to the cryptocurrency as a casual reader of the site in 2013), and this perspective appears in comments on the critical posts and in top-ranked posts from the r/Bitcoin subreddit. The terms which appear prominently throughout these proponent contributions are "buy" and "celebration," as well as entailments, derivations, and synonyms. These terms are employed in a pattern resembling the discourse of speculative finance, but vernacularized and often without the illusion of sobriety projected by Wall Street firms. It is a language which employs words such as "stocks,"

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[69] u/InstantlyJobless, "YSK: If you get an email from a "hacker" which displays your ACTUAL password as proof that you've been hacked, just ignore it," reddit, post, May 26, 2020, https://www.reddit.com/r/YouShouldKnow/comments/gra3w0/ysk_if_you_get_an_email_from_a_hacker_which/; u/trollie74, "All new laptops should have a small sliding cover in front of the webcam," reddit, post, December 11, 2017, https://old.reddit.com/r/Showerthoughts/comments/7iyqic/all_new_laptops_should_have_a_small_sliding_cover/.

[70] u/Amg137, "Starting today, more people will have access to the redesign."

"shares," and "securities" as synonyms, even if there are definitional differences *a la* squares and rectangles. Accordingly, "buy" and "celebration" should be understood as labels of loose collections of words which constitute general terms. Guiding this proponent rhetoric is a logic I call prosperity technology, which assumes wealth growth as the result of faith in Bitcoin.[71]

"Buy"

In the context of changing money, the word "buy" appears misplaced. After arriving in Bogotá, a tourist doesn't buy Colombian pesos as they might an arepa. They "exchange" whatever currency they've brought at an appropriately-named *casa de cambio*.[72] Though the transaction might appear the same (dollars in one direction, pesos or food in the other), there is a modicum of respect for national sovereignty—often-ignored and superficial as it may be—in exchanging a green bill bearing images of the U.S. Treasury and its first secretary, Alexander Hamilton, for a blue and purple one depicting an ancient, indigenous, Colombian city and the great author Gabriel García Márquez. To buy pesos with dollars might therefore be understood as discarding any pretense of mutual exchange, boldly acknowledging dollar hegemony and the associated powers wielded by the U.S. over Colombia and throughout Latin America.[73]

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[71] Susan Strange, *Casino Capitalism* (New York, NY: Basil Blackwell, 1986). As with the proponent logic of technological progress in the case of Alexa, I think it best to charitably name this logic here, even as it may in some regards be more accurately described with the critical phrase "casino capitalism," as popularized by Susan Strange in her book titled the same.

[72] Translated literally into English: "house of exchange."

[73] Greg Grandin, *Empire's Workshop: Latin America, the United States, and the Rise of the New Imperialism* (New York, NY: Henry Holt and Company, 2006).

Unlike these currencies, Bitcoin is stateless and lacks the national imagery of physical bills. Bitcoin has a symbol (Ƀ) designed by Nakamoto and is often imagined as a golden coin, but the unknown designer cannot be imprinted on an electronic coin as Benjamin Franklin is on the $100 bill.[74] Individual instead of collective sovereignty is latent in presentation of Bitcoin "price" history and an invitation buy instead of an "exchange rate" and opportunity to "exchange" on the website of Coinbase. Accordingly, the prominent cryptocurrency firm and its competitors might be better described as retailers instead of exchanges, because they sell Bitcoin as a store of value (i.e. asset) rather than trade for it as a medium of exchange (i.e. currency).[75] One does not buy an arepa on the streets of Bogotá with Bitcoin.[76] They buy Bitcoin online with dollars or pesos.

In the comments beneath a joke posted in 2017 on reddit about the volatility of Bitcoin's value, one site user operating under the assumption that Bitcoin can be used as a currency—asking "How the fuck is this even usable[sic]"[77]—is answered by another who explains how and what one buys with Bitcoin:

> Bitcoin was originally envisioned to take over the role of the dollar. It has evolved to take over more of the role of gold. You don't use gold to buy coffee. You hold

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[74] Popper, *Digital Gold*; Lana Swartz, "What was Bitcoin, what will it be? The techno-economic imaginaries of a new money technology," *Cultural Studies* 32, no. 4 (2018): 623-650, https://doi.org/10.1080/09502386.2017.1416420; Swartz describes the digital metallism which drives the imagining of Bitcoin as gold; However, it should be noted that "satoshi" has become a commonly used name for 0.00000001 Bitcoin (one hundred millionth).

[75] Koray Caliskan, "Platform Works as Stack Economization: Cryptocurrency Markets and Exchanges in Perspective," *Sociologica* 14, no. 3 (2020): 115-142, https://doi.org/10.6092/issn.1971-8853/11746; Caliskan. refers to such firms as "economization stacks," as a wide range of economic practices occur on their platforms.

[76] This is obviously possible (if not probable), but not how Bitcoin is understood in the proponent rhetoric which employs the term "buy."

[77] u/Petersaber, reddit, comment, December 8, 2017, https://old.reddit.com/r/Jokes/comments/7ieoji/a_boy_asked_his_bitcoininvesting_dad/dqydw3w/.

it because it's scarce and other people place value on it as well. As the number of people who share the idea that gold/bitcoin has value reaches critical mass, it becomes a store of value. Lots of people are working on making Bitcoin and/or other crypto assets to work more as a currency, but that's not what Bitcoin is functioning as at this moment.[78]

It is in this sense that proponents of Bitcoin on reddit have become divorced from Nakamoto's intent that it be used to buy things, even as they retain an individualism in describing the cryptocurrency as itself worth buying to store and grow wealth. Though a description on the subreddit r/Bitcoin refers to Bitcoin as "the currency of the Internet," paying lip service to the original aim, the forum does not allow trades ("submissions like 'Buying 100 BTC' or 'Selling my computer for bitcoins' do not belong here") and posted resources emphasize how to "buy" or "invest."[79] It is the commodity theory of money that underlies such description of Bitcoin as a valuable digital object, "digital gold" but without the actual metal's historical practicality as a currency. The cryptocurrency is worth buying but less practical to buy with, making it less analogous to gold than other antiquated commodities used as money. Bitcoin is more like "digital cattle."

Bitcoin is not discussed on reddit as an alternative currency to that of an insufficiently free system, but an asset that has proliferated and been embraced within the system, free enough. As one comment notes, in a comparison of Bitcoin and traditional investing, "The only difference with cryptocurrencies is that the little guy isn't locked out of trading ten hours out of every day."[80] Buying Bitcoin isn't a revolutionary act, but

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[78] [deleted], reddit, comment, December 8, 2017,
https://old.reddit.com/r/Jokes/comments/7ieoji/a_boy_asked_his_bitcoininvesting_dad/dqyhz2h/.

[79] "Bitcoin – The Currency of the Internet," reddit, accessed on August 8, 2022,
https://www.reddit.com/r/Bitcoin/.

[80] u/cogentat, reddit, comment, January 16, 2018,
https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/dsrlcp5/
.

seizing an opportunity allowed by the existing order. In the comments beneath a post celebrating the cryptocurrency's value reaching $10,000 in November 2017, one redditor describes their regrets of not buying sooner (Figure 14).

Figure 14: Buying as opportunity [81]

This commenter, u/Agastopia, uses the prominence of their original comment (scored at nearly 3,000 points as a combination of up and down votes) toward educating others on how they can buy and securely store Bitcoin with multiple addendums. This is a light introduction on how to buy—and synonymously "invest in" or "purchase"—Bitcoin from

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[81] u/Agastopia, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhh03m/.

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Coinbase or GDAX (the former firm's professional version, later to be renamed

"Coinbase Pro"). u/Agastopia notably pays little attention to the Bitcoin network's proof-

of-work cryptographic process (as "it'll never really make complete sense to you lol"),

instead emphasizing a basic understanding of the public-key cryptography and how to set

up a metaphorical "wallet" to secure a private key.

Unlike in other proponent rhetorics of technology (e.g., the rhetoric of

technological progress associated with Alexa on reddit), here technical expertise is less

important than kairotic intuition. In other words, knowing how Bitcoin works is less

important than being able to sense the opportune moment to buy. Further, that emphasis

on personal finance (even if posted to a forum with educational resources) appears

significantly more individualist than Bitcoin's origin as a technology designed

collectively toward protecting individual rights and property. Rather than an invitation to

help build a slow-moving political project, u/Agastopia and others on r/Bitcoin enjoin

readers to get onboard a train that is about to leave the station, to buy into Bitcoin before

it is too late. Even with a small or modest investment (the commenter notes buying some

amount less than two Bitcoin when valued at $5,000, and the posted public key has zero

associated transactions on the blockchain), the cryptocurrency is presented as an

opportunity to double one's money.[82] "I bought in at 9.8k. Already feel like a star,"

writes another user on the original $10,000 celebratory post, perhaps sarcastically but

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[82] "Address: 1BAmLFekj8P6cM7nyYkb4sqFqsTdKo2Wk1 | Blockchain Explorer," *Blockchain.com*, accessed August 8, 2022, https://www.blockchain.com/btc/address/1BAmLFekj8P6cM7nyYkb4sqFqsTdKo2Wk1.

prescient nevertheless, as Bitcoin would rise to a value of $19,783.21 during the

following month (the December 2017 high mark not surpassed until November 2020).[83]

Bitcoin's value has indeed risen dramatically from an original value of zero

(when, as Swartz notes, Bitcoins were given away by early enthusiasts in so-called

"faucets" for free), and as one reddit user noted in a February 2021 comment, "Nobody

who has held Bitcoin at least 4 years has ever lost money on their investment."[84] Yet

along with the dramatic booms there have been significant crashes as part of Bitcoin's

volatility. For example, following the late 2017 boom a Bitcoin's value would drop

below $3,400 by the end of 2018.[85] While rhetorics oriented critically and *glitchy* toward

Bitcoin will describe such crashes as evidence of its flaws or bound up with the

cryptocurrency's benefits, respectively, Bitcoin's advocates claim these events to be

opportunities. A decrease in value is spoken of as a lower price, as though so-called

exchanges are offering a sale on Bitcoin like a retailer would on a product. Instead of

lamenting a decrease in the value of Bitcoins held, such decreases are recognized as

moments when one should purchase more. In the belief that the value will eventually rise

again, Bitcoin proponents push an optimistic strategy: "buy the dip."

A set of comments, descending from one previously mentioned, reveals this

perspective (Figure 15).

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[83] u/Xavieros, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhgnzk/; Paul Vigna,
"Bitcoin Price Hits All-Time High Above $19,000, Topping 2017 Record," *The Wall Street Journal*,
November 30, 2020, https://www.wsj.com/articles/bitcoin-hits-all-time-high-of-19-786-topping-record-
from-december-2017-11606750573.

[84] Swartz, "Bitcoin As A Meme And A Future"; u/shinjury, reddit, comment, February 25, 2021,
https://www.reddit.com/r/yesyesyesyesno/comments/lsninc/bitcoin_explained/gosf5b0/.

[85] Sebastian Sinclair, "Bitcoin Drops Below $3.4K to Set a New 2018 Low," *CoinDesk*, December 6, 2018,
https://www.coindesk.com/bitcoin-drops-below-3-4k-to-set-a-new-2018-low.

[-] **Xavieros** 908 points 3 years ago*

I bought in at 9.8k. Already feel like a star.

permalink embed save parent give award

   [-] [deleted] 672 points 3 years ago

   Don't get nervous if it drops to 6k tomorrow. Go look at some charts from
   2011 or 2013 and imagine the people who panic sold then... if only they had
   waited!

   permalink embed save parent

      [-] **anonymoushero1** 968 points 3 years ago

      if it goes to 6k tomorrow then everyone can say goodbye to their
      christmas presents...... cuz I'm buyin' low baby!

      permalink embed save parent give award

         [-] **piaknow** 302 points 3 years ago

         Yes a dip would be the best thing that could happen in the next week

         permalink embed save parent give award

            [-] **OctagonCosplay** 101 points 3 years ago

            Yeah during the last few days I've been stuck between buying
            more or waiting for a bigger dip. Doesn't look like that dip is
            coming anytime soon.

            permalink embed save parent give award

               [-] **piaknow** 60 points 3 years ago

               Hard to say. It was at 5K just a couple weeks ago! It will get a
               lot of mainstream attention now which will increase demand,
               but it may prompt China or other nations to ban or regulate
               crypto. China's regulations have heavily influenced dips in the
               past.

               permalink embed save parent give award

Figure 15: Volatility as Opportunity[86]

These Bitcoin enthusiasts point out to the recent initiate that crashes are not to be feared,

as investing long term has proven lucrative. Further, if such a decline were to occur the

following day (which didn't happen) it would actually be "the best thing that could

happen," and an even more opportune moment than at the time of their comments. Just

like deciding to immediately buy or wait for a sale on products from a retailer (i.e., the

Christmas gifts u/anonymoushero1 ostensibly ended up buying), the comments from

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[86] u/Xavieros, "I bought in at 9.8k. Already feel like a star."

u/OctagonCosplay and u/piaknow mull over the potential for a dip. These proponents are considering whether to buy at the moment or later, but that buying Bitcoin is a worthwhile opportunity regardless of the moment is implicitly assumed. The faithful Bitcoin holder, whether they buy the dip or buy during a rise in value, should expect to see a gain on their investment based on historical evidence. The volatility that hinders Bitcoin's function as a currency is rendered an opportunity to buy low or high and watch the value go higher.

"Celebration"

As detailed above, new Bitcoins are created as rewards for nodes on the network that maintain the blockchain. More processing power (and electricity consumption) increases a node's chances at mining the Bitcoins generated approximately every ten minutes. Despite claims to the contrary, it is a system which has come to incentivize not decentralization throughout personal computers but instead concentration of mining power into large firms. These firms often have much cause for celebration, because as one comment noted in February 2021, "with BTC now over $40k, that means that every block found rewards it's finder with $250k. Every 10 minutes. It's as if Tesla decided to release 300 new shares every 10 minutes, yet still the price goes up!"[87]

This sense of passive value creation, a large and growing return on relatively inexpensive mining hardware and electricity, is mirrored in the celebratory attitude of redditors who more frequently describe buying rather than mining Bitcoin. When one redditor critically remarks on the electricity usage of Bitcoin, writing in a comment,

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[87] u/dhork, reddit, comment, February 10, 2021,
https://www.reddit.com/r/technology/comments/lgw130/bitcoin_uses_more_electricity_annually_than_the/gmtxuti/.

"Such a waste of real resources for fake money," in accordance with the credit theory of money a blunt reply contends, "All money is fake." [88] Without considering various determining factors (e.g. Chinese regulation), changes in the cryptocurrency's valuation appear as arbitrary a phenomenon as a flock of birds changing direction in the sky.[89] In an atmosphere of random chance, a successful gamble—here not merely wagering $1 for a chance at $2, but buying "fake money" in the hope that it might appreciate in value like real estate—merits celebration.

The all-time top submission on the r/Bitcoin subreddit (ranked 9th across all of reddit) is merely a 15 second GIF with a title to provide context, posted on November 29, 2017 by u/LeeWallis (Figure 16).

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[88] u/heresyforfunnprofit, reddit, comment, February 10, 2021, https://www.reddit.com/r/technology/comments/lgw130/bitcoin_uses_more_electricity_annually_than_the/gmu4b0n/.

[89] McGregor, "China already banned crypto mining"; Meaghan Tobin, "Why China's crypto cowboys are fleeing to Texas," *Rest of World*, August 11, 2021, https://restofworld.org/2021/bitcoin-miners-china-texas/.
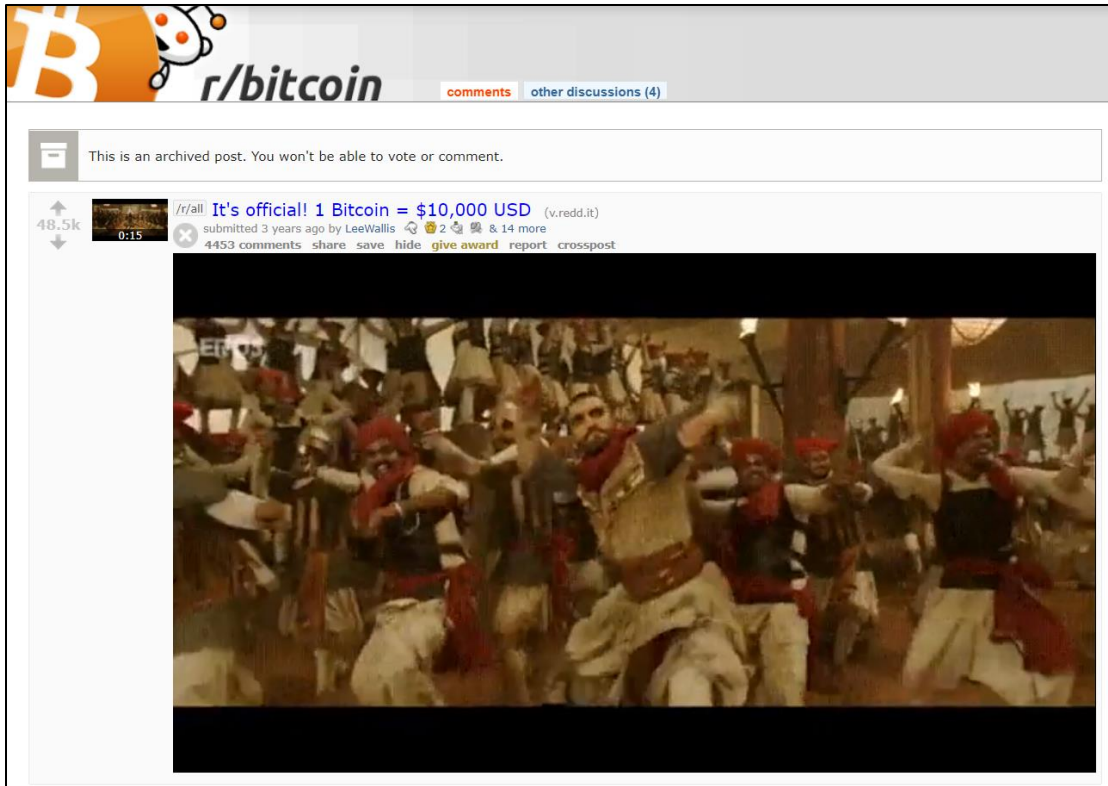
Figure 16: Celebration of Appreciation[90]

The post marked a significant milestone, when the cryptocurrency—then less than

a decade old—reached $10,000 in value for the first time. The GIF, a short clip without

audio from the "Malhari" song sequence in the 2015 Indian film *Bajirao Mastani*, shows

a military commander dancing in victorious celebration with soldiers.[91] Though the

massively successful film (as well as the history it dramatized) is not widely known in the

U.S., the short clip in which actor Ranveer Singh—portraying Bajirao I of the 18th

century Maratha Empire—saunters past cheering soldiers inside a large golden-hued tent

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[90] u/LeeWallis, "It's official! 1 Bitcoin = $10,000 USD," reddit, post, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/.

[91] Know Your Meme, "Malhari Dance / Bollywood Entrance," *Know Your Meme*, April 12, 2020,
https://knowyourmeme.com/memes/malhari-dance-bollywood-entrance; Wikipedia, s.v. "Bajirao Mastani,"
last modified August 9, 2022, 12:52, https://en.wikipedia.org/wiki/Bajirao_Mastani.

before all break into a synchronized dance has been posted on the r/Bitcoin subreddit as a

celebratory meme multiple times in addition to the aforementioned milestone. For

example, an earlier post by u/packetinspector on August 12, 2017 featured the same GIF,

known as either "Bollywood Entrance" or "Malhari Dance," to celebrate when Bitcoin

reached $4,000.[92]

Beneath the post referencing the $10,000 milestone, Bitcoiners made short

celebratory comments serving as the forum's equivalent of the cheering and dancing

occurring in the GIF:

> Wooooo!!!!
> I watched the wall fall on GDAX live :)[93]
> --
> BTC 10k party![94]
> --
> See you at 15k[95]
> --
> This is still my fav one. Watch it every time. $25k here we come! The first
> million is always the hardest!
> Edit: wow gold. Thank you to the kind sole who gave it! To the mooonnn[96]
> --
> To the moon!!! └(°.°)┘ [97]
> --

[92] u/packetinspector, "Bitcoinity USD $4000 gif," reddit, post, August 13, 2017,
https://old.reddit.com/r/Bitcoin/comments/6tcg99/bitcoinity_usd_4000_gif/.

[93] u/walloon5, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhgsbw/.

[94] u/bsaires, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhh0vs/.

[95] u/flclst3v3, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhgl4i/.

[96] u/ducksauce88, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhgvl2/.

[97] u/ToTheMoonDoge, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhh8qx/.

Full Celebration[98]
[text hyperlinked to a *YouTube* video of the entire "Malhari" sequence with music, followed by a reply]
That's so much more amazing than the gif[99]

Though the pairing of a Bitcoin milestone with a scene from a Hindi-language film set three centuries prior may appear odd, with an incongruity often characteristic of irony and the *glitchy* orientation, I suggest an alternative interpretation: the "Malhari Dance" meme contains no hidden meaning and functions sincerely as an important component of Bitcoiners' epideictic rhetoric. The 15 seconds offers a brief glimpse of the positive masculinity possible through camaraderie, free of the toxicity resulting from anxiety produced by intragroup competition. While the 2013 U.S. film *The Wolf of Wall Street* is likely more known on the English-language r/Bitcoin forum, a clip of actor Leonardo DiCaprio as criminal stockbroker Jordan Belfort rousing an audience of subordinate brokers with a speech about becoming rich wouldn't work as effectively as the charismatic scene from *Bajirao Mastani* within the celebratory rhetoric of the subreddit.[100] The distance of centuries instead of mere decades, the context of military success instead of financial scheming, and the overt expression of elation instead of covert critique of greed are preferable for the proponents of Bitcoin, who elsewhere defend against critics arguing its lack of regulation makes the cryptocurrency vulnerable to manipulation like the "pump and dump" schemes depicted in *The Wolf of Wall*

[98] u/ditto755, reddit, comment, November 29, 2017, https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhhb2r/; Eros Now Music, "Malhari Full Video Song | Bajirao Mastani | Ranveer Singh," May 3, 2016, video, 3:52, https://www.youtube.com/watch?v=l_MyUGq7pgs.

[99] u/lucky_rabbit_foot, reddit, comment, November 29, 2017, https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhipni/.

[100] Movieclips, "The Wolf of Wall Street (8/10) Movie CLIP - I Choose Rich Every Time (2013) HD," August 5, 2016, video, 2:42, https://youtu.be/5mMnqYaXDk4.

Street.[101] Rather than the convicted felon Belfort and his accomplices, the great leader

Bajirao and his victorious soldiers are associated with Bitcoin through use of the

"Malhari Dance" celebratory meme. Rather than individual traders defined by avarice,

Bitcoiners foreground an "inner bond between men" (in the words of Simmel) necessary

for a non-market-determined community.[102]

In Bitcoin We Trust

The terms "buy" and "celebration" as well as the pattern in which they are used in

the rhetoric of Bitcoin proponents appear as invitations and education in financial

language toward investing in the cryptocurrency, regardless of its current value. One

might imagine a room full of brokers irrationally bullish toward a specific asset, not

entirely unlike those pumping a stock at Belfort's firm but without the centralized plan to

profit from a dump. Instead of such a plan, Bitcoin has a characteristic rendering it more

than a mere financial instrument for proponents. It is not like Steve Madden, frozen

concentrated orange juice, or other companies and commodities selected

opportunistically but essentially inconsequential to a financial scheme.[103] A collective

belief among proponents that the cryptocurrency will be among the most important

[101] u/scroopy_nooperz, reddit, comment, January 16, 2018,
https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/dsrgsox/
; For example, on a post indicating possible manipulation in earlier years, a comment counters, "It's been
like 5 years since BTC hit 1k USD. The market is significantly bigger now. It's very misleading to say the
BTC market is still vulnerable to this manipulation when the market is now exponentially bigger."

[102] Simmel, *The Philosophy of Money*, 187.

[103] *The Wolf of Wall Street,* directed by Martin Scorsese (2013; Hollywood, CA: Paramount Pictures);
Trading Places, directed by Jon Landis (1983; Hollywood, CA: Paramount Pictures); Stock in shoe
company Steve Madden is among those pumped and dumped by Belfort's firm and depicted in *The Wolf of
Wall Street,* and futures contracts of frozen concentrated orange juice are sold short in the climactic trading
floor scene of the movie *Trading Places*. Actual production of shoes and cultivation of oranges are largely
unimportant to the films' plots.

technologies of the financial sector's telos makes it a unique asset. While elsewhere on reddit (e.g., r/wallstreetbets) traders discuss various fleeting investment opportunities— including in so-called "meme stocks," some of overvalued companies—those advocating purchases of Bitcoin do so with a level of commitment to the cryptocurrency itself even as they may not fully understand how the Bitcoin mining and transaction network functions.

While finance appears to be an imperfect science, it is a sector in which expertise is still venerated (not unlike the broader study of economics), regardless of if those deemed "experts" merely started with more disposable capital to put at risk or just had great luck in predicting the rise and fall of share values. This is perhaps most obvious in the case of Buffett, whose immense success in an uncertain profession has inspired a commonly used designation for the elder investor: "oracle of Omaha." The title reveals how financial expertise is often little more than a form of capitalist prophecy, despite all the Wall Street trappings and rationalizations which would suggest otherwise. Many in finance suggest trust in the apparent clairvoyance of an elderly billionaire in Nebraska even as they also operate throughout the old buildings of Lower Manhattan and find an investment to be sound only when a company's product/service, practices, and structure are geared toward maximizing the value of shares and producing dividends. According to a 2021 survey of traders, one third admit to making investments while drunk.[104]

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[104] Weston Blasi, "Amid 'gamification' concerns, nearly 6 in 10 Gen Z investors admit to trading while drunk," *MarketWatch*, August 27, 2021, https://www.marketwatch.com/story/more-than-half-of-gen-z-investors-admit-to-trading-while-drunk-11629382517; The survey indicates a generational gap between 59% of Gen Z investors trading while drunk and only 9% of baby boomers partaking.

Bitcoin investors extend such pseudo-expertise to the point that what is often concealed by those who are figuratively invested in an illusion of sobriety among financial institutions (e.g., emphasizing index funds and diversified retirement plans) is revealed. This is somewhat like Belfort's Stratton Oakmont, a firm with a WASPy name evoking thoughts of old money to mask illegal schemes and the brokers' erratic, drug-fueled behaviors, but which eventually served as an illuminating myth of the financial sector with a film adaptation. However, the Bitcoin proponents' underlying faith is in the cryptocurrency's protocol rather than the abilities of experts to predict and profit from market developments, even as they use many of the same terms which constitute similar patterns. In this way, Bitcoin zealots are concealed in a guise resembling that of day traders. Crashes don't induce skepticism in believers but appear as opportunities for Bitcoiners to buy low and add to their holdings. Dramatic rises aren't divinely caused miracles, but evidence worth celebrating as they reveal that Bitcoin investments generate large returns (without any kind of fraudulent manipulation). This pattern has just one material aim: to realize a return on Bitcoin investment as dictated by the logic of prosperity technology.

Two-cent coins issued in 1864 were the first U.S. currency to bear the phrase "IN GOD WE TRUST," nearly a century before Congress passed law in 1956 making it the national motto and required on all currency.[105] The resulting Cold War-era link of religious and commercial freedoms in the design of the dollar persists, now three decades

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[105] "History of 'In God We Trust,'" *U.S. Department of the Treasury*, March 8, 2011, https://web.archive.org/web/20220105054307/https://www.treasury.gov/about/education/pages/in-god-we-trust.aspx; "The Legislation Placing 'In God We Trust' on National Currency," *History, Art & Archives: United States House of Representatives*, accessed August 8, 2022, https://history.house.gov/Historical-Highlights/1951-2000/The-legislation-placing-"In-God-We-Trust"-on-national-currency/.

removed from breakup of the Soviet Union in contrast to which the values were imprinted. The connection brings together the spiritual and material, both areas of life requiring faith. "For the most part, mainstream Christianity has been concerned with what American culture has been concerned with, which is success," notes the philosopher and public intellectual Cornel West, adding, "And success has never been the same as spiritual greatness."[106] It is an apt description of what has become known as either "prosperity gospel" or more accurately "prosperity theology," which emphasizes less the immaterial salvation of a Jesus who drove merchants and money-changers out of the temple in Jerusalem than what earthly rewards God would provide for the faithful. U.S. televangelists, on ornately decorated stages and dressed daily in their Sunday best, are the most visible advocates for such beliefs. Jerry Falwell, Jim Bakker, and Joel Osteen are among those who have implored viewers throughout broadcasts to give to God—conveniently taking the material form of donation to or purchase from the televangelists' organizations by toll-free number—as the demonstration of faith will be rewarded. In prosperity theology, the merchant is in the temple, simultaneously performing that role and the duties of another: pastor.

With the understanding that money is a social process in which people must have faith, it should come as little surprise that advocacy of Bitcoin on reddit would resemble religious fervor in some senses. Instead of God or the dollar, this proponent rhetoric advances placing one's trust in Bitcoin. I call the driving proponent logic "prosperity technology," as it believes rewards abound when one casts their lot with new

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[106] Emma Green, "Cornel West on Why the Left Needs Jesus," *The Atlantic*, August 13, 2021, https://www.theatlantic.com/politics/archive/2021/08/cornel-west-jesus-progressives/619741/.

technologies, their creators, and other believers.[107] Further, both the devices and software

(e.g. the mines and protocol of Bitcoin) implied by colloquial use of the word and the

logic itself should be understood as technologies collectively crafted and maintained by

believers. Whereas expertise is emphasized in the logic of technological progress driving

the proponent rhetoric of Alexa, central for prosperity technology is trust in the

beneficence of technology one may not have the ability or patience to fully comprehend.

It is prosperity technology which leads some young people to incessantly produce content

on emerging social media platforms in the hope they might be able to ride an algorithmic

tornado to a Los Angeles mansion, escaping from (for example) their small Kansas

hometown.[108] It is prosperity technology which generates extreme enthusiasm and

support from hobbyist observers of privatized spaceflight, likely imagining a future

moment when they too might be freed from Earth's gravity.[109] And it is prosperity

technology which drives buying Bitcoin—even as it crashes in value—with faith that the

cryptocurrency will rebound and rise even higher, meriting celebration.

Importantly, in describing Bitcoiners as religious in their enthusiasm I don't mean

to snidely critique their advocacy as a form of faith. I'm largely convinced by the

contention that "all money is fake," in that money is forged by people who imbue it with

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[107] Jill Lepore, "Elon Musk Is Building a Sci-Fi World, and the Rest of Us Are Trapped in It," *The New York Times*, November 4, 2021, https://www.nytimes.com/2021/11/04/opinion/elon-musk-capitalism.html; "Prosperity technology" should be understood as an overarching logic of intersecting denominations. While I'm describing a version that centers the average social media user trying to strike it rich, "Muskism" as identified by historian Jill Lepore can be recognized as a branch of the logic for the believers who are already wealthy.

[108] Barrett Swanson, "The Anxiety of Influencers," *Harper's Magazine*, June 2021, https://harpers.org/archive/2021/06/tiktok-house-collab-house-the-anxiety-of-influencers/.

[109] Scott Neuman, "Jeff Bezos And Blue Origin Travel Deeper Into Space Than Richard Branson," *NPR*, July 20, 2021, https://www.npr.org/2021/07/20/1017945718/jeff-bezos-and-blue-origin-will-try-to-travel-deeper-into-space-than-richard-bra.

a collective illusion of materiality, just as they construct gods who they imagine perform miracles. In other words, the credit theory is the accurate understanding which recognizes money to be socially constructed, even as the commodity theory appears to be the understanding widely held in the U.S. toward the dollar. This belief is so widespread that beyond providing a social structure to the faithful, it can also be of use to the non-believer, and therefore monetary atheists practice dollarism. While the value of that old money (in the sense that it is fiat currency) remains stagnant or susceptible to inflation, the new money and faith of Bitcoin is recognized as an opportunity for the kind of passive wealth generation available in the technologically deficient past only to "old money" (i.e. the long-established wealthy). Director Spike Lee says as much in an advertisement he created for the Bitcoin ATM company Coin Cloud: "Old money's not gonna pick us up. It pushes us down. Exploits. Systematically oppresses. But new money? New money is positive. Inclusive. Fluid. Strong. Culturally rich. Where status is anything but status quo."[110]

Though with an egalitarian overlay in Lee's commercial, the road paved in Bitcoins to a promised land is quite different than that of the Calvinists Max Weber famously described, for whom work itself led to salvation.[111] An anarcho-capitalist heaven of prosperity technology—built upon an inherently flawed protocol, however socially inclusive it may present as—is anti-work, and because workers are either unable to tithe or non-believers it is anti-worker. In other words, a technology such as Bitcoin

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[110] Coin Cloud, "The Currency of Currency," July 14, 2021, video, 2:00, https://youtu.be/5XMFEUNut18; Tiffany Hsu and Coral Murphy Marcos, "Cryptocurrency Seeks the Spotlight, With Spike Lee's Help," *The New York Times*, July 7, 2021, https://www.nytimes.com/2021/07/07/business/media/cryptocurrency-seeks-the-spotlight-with-spike-lees-help.html.

[111] Max Weber, *The Protestant Ethic and the "Spirit" of Capitalism and Other Writings* (New York, NY: Penguin Books, 2002).

can't induce the equitable redistribution of wealth, but it is well suited for those atop an economy in which sweatshops made PR-friendly serve as the manufacturing core. I offer this brief critique guided by the logic of economic justice here for whatever insight it may provide but also as a means to transition to a critique of another sort, dominant in the discussions of Bitcoin on reddit where critical comments reveal logics of technological and financial skepticism.

<div align="center">Opponent – Technological and Financial Skepticisms</div>

Of the ten selected reddit posts, many point to problems caused by or inherent to the design of Bitcoin (see Appendix B). Further, critical comments appear beneath each of the posts, often as critiques of those advocating for Bitcoin in the threads. In response to the unexamined faith in Bitcoin—that driven by the logic of prosperity technology described above—the posts and comments on reddit in opposition to Bitcoin attempt to reveal the cryptocurrency's flaws as an instrument of personal finance and as a digital artifact that intends to spur changes in political economy. Instead of a religious trust, these contributions to the deliberation seek to verify by means of technical expertise, whether in the branches of computer science from which the structure of a blockchain emerged or in the fundamentals of finance and economics. This is the same pattern of expertise and rationality which in the case of Alexa is used to advocate for the virtual assistant, but here is employed in arguments against Bitcoin. The terms which appear prominently throughout these threads include "privacy" and "scam," as well as entailments, derivations, and synonyms. Guiding these terms and the pattern of their use are logics of technological and financial skepticism.

"Privacy"

The top ranked post on reddit concerning Bitcoin was submitted to the

r/worldnews subreddit on January 14, 2021, and consists of merely a link to a *Yahoo!*

News article published the same day, titled, "Exclusive: Large bitcoin payments to right-

wing activists a month before Capitol riot linked to foreign account."[112] The report details

how Chainalysis, a blockchain inspection firm, discovered donations amounting to 28.15

Bitcoins (at the time worth approximately $522,000) sent from the wallet of a French

computer programmer to right-wing figures and organizations in the U.S. on December 8,

2020. One day following publication of the *Yahoo! News* article and a blog post from

Chainalysis, French newspaper *20 minutes* confirmed that the French donor had

committed suicide on the same day as the transactions occurred.[113] In a suicide note

automatically posted to his blog on December 9, the programmer had wrote of a chronic

illness and the "décadence de la civilisation occidentale"—in English, the "decline of

western civilization"—as causes for the suicide and Bitcoin donations, respectively.[114]

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[112] u/DoremusJessup, "Large bitcoin payments to right-wing activists a month before Capitol riot linked to foreign account," reddit, post, January 14, 2021,
https://www.reddit.com/r/worldnews/comments/kxc65n/large_bitcoin_payments_to_rightwing_activists_a/
; Jenna McLaughlin, "Exclusive: Large bitcoin payments to right-wing activists a month before Capitol riot linked to foreign account," *Yahoo! News*, January 14, 2021, https://news.yahoo.com/exclusive-large-bitcoin-payments-to-rightwing-activists-a-month-before-capitol-riot-linked-to-foreign-account-181954668.html?soc_src=social-sh&soc_trk=tw&tsrc=twtr.

[113] "Alt-Right Groups and Personalities Involved In the January 2021 Capitol Riot Received Over $500K In Bitcoin From French Donor One Month Prior," *Chainalysis,* January 14, 2021, https://blog.chainalysis.com/reports/capitol-riot-bitcoin-donation-alt-right-domestic-extremism; Philippe Berry, "Violences à Washington : Avant son suicide, un Français aurait fait une donation en bitcoins de 500.000 dollars à l'ultradroite américaine," *20 minutes*, January 15, 2021, https://www.20minutes.fr/monde/2953347-20210115-violences-washington-avant-suicide-francais-fait-donation-bitcoins-500000-dollars-ultradroite-americaine.

[114] Berry, "Violences à Washington."

"should have used monero" reads a prominent comment by user u/a-kid-from-africa in the thread on the reddit post, awarded with paid distinctions by other users (one of Reddit Inc.'s platform monetization methods, amplified shortly after the 2018 redesign).[115] A reply to a reply takes up the task of informing others about "monero" (also receiving an award for doing so) (Figure 17).

[115] u/a-kid-from-africa, reddit, comment, January 14, 2021,
https://www.reddit.com/r/worldnews/comments/kxc65n/large_bitcoin_payments_to_rightwing_activists_a/
gj9f5gh/; u/venkman01, "Hey r/changelog, we're starting to roll out some of the Gold updates on desktop!"
reddit, post, September 24, 2018,
https://www.reddit.com/r/changelog/comments/9ik900/hey_rchangelog_were_starting_to_roll_out_some_o
f/.
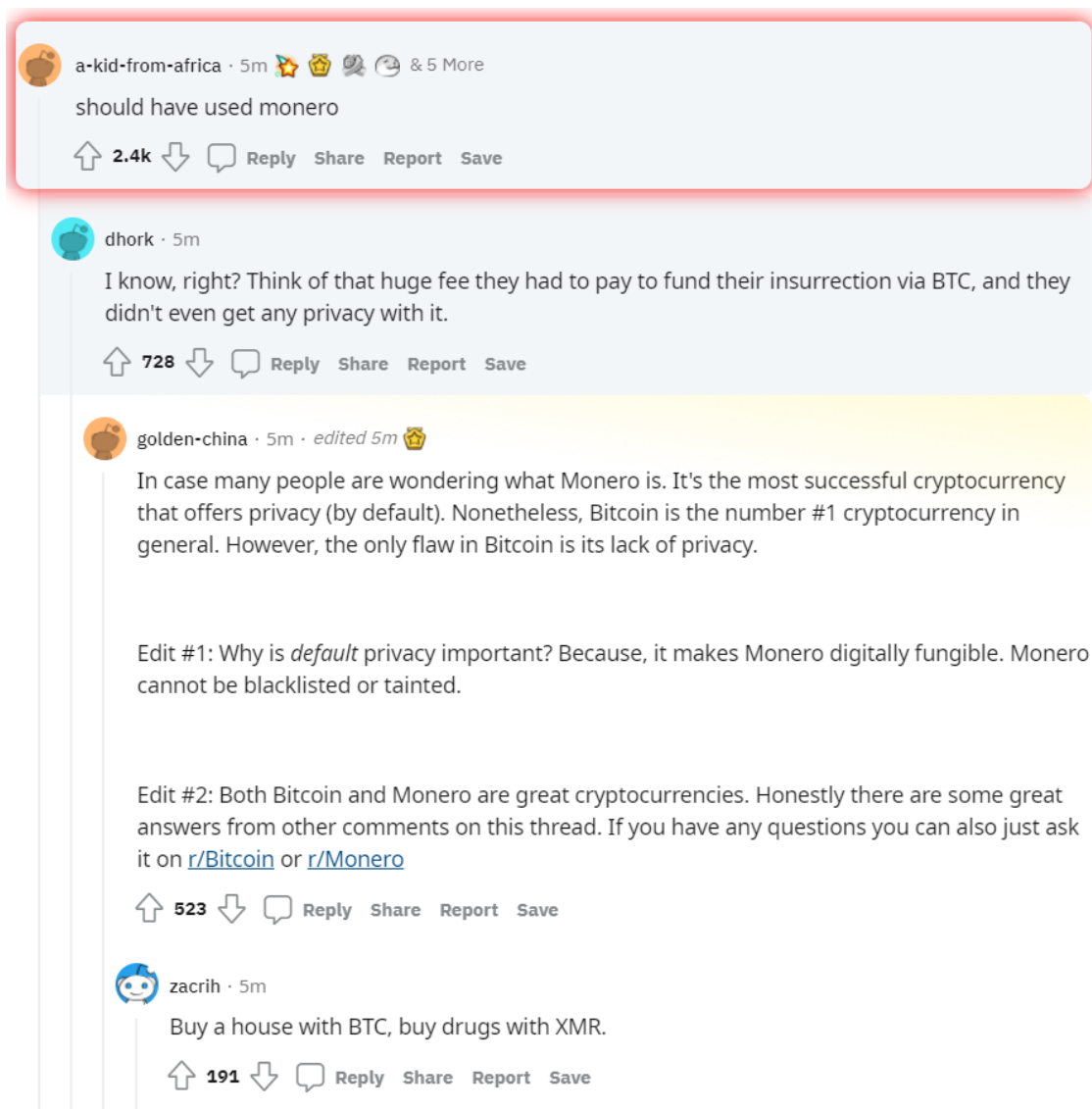
Figure 17: A Privacy Coin[116]

Monero—Esperanto for "coin" and with the code XMR—is (as the comment notes) an

alternative cryptocurrency to Bitcoin designed for privacy, created by pseudonymous

programmers over a year-long period beginning in October 2013.[117] What is transparent

on the Bitcoin network (where transactions are visible to anyone on the decentralized

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[116] u/a-kid-from-africa, "should have used monero."

[117] Andy Greenberg, "Monero, the Drug Dealer's Cryptocurrency of Choice, Is on Fire," *Wired,* January 25, 2017, https://www.wired.com/2017/01/monero-drug-dealers-cryptocurrency-choice-fire/.

ledger), is obscured by the code of Monero, as detailed in a 2017 *Wired* magazine article

which describes the privacy coin as "the drug dealer's cryptocurrency of choice":

> Monero not only bakes anonymity features into the cryptocurrency itself, but
> implements a few features that Bitcoin still can't offer. It uses a technique called
> "stealth addresses" to generate addresses for receiving Monero that are essentially
> encrypted; the recipient can retrieve the funds, but no one can link that stealth
> address to the owner. It employs a technique called "ring signatures," which
> means every Monero spent is grouped with as many as a hundred other
> transactions, so that the spender's address is mixed in with a group of strangers,
> and every subsequent movement of that money makes it exponentially more
> difficult to trace back to the source. And it uses something called "ring
> confidential transactions," which hides the amount of every transaction.[118]

By 2021, Monero had begun to be demanded more frequently by hackers, even as Bitcoin

remained the most common cryptocurrency exacted in ransomware attacks.[119]

Unlike those reddit users who didn't concern themselves with the details of how

Bitcoin works, the commenters who identify the cryptocurrency's transparency as a flaw

demonstrate an understanding of its design. This relative expertise dispels the commonly

held assumption (especially in the early era of its usage) that Bitcoin transactions leave

less of a digital footprint to be traced than those using a credit card, a presumption which

led many to buy illegal drugs with Bitcoin on the Silk Road dark website before it

shuttered in 2013. Whereas Bitcoin offered only an illusion of privacy, Monero includes

technical solutions in the form of its stealth addresses, ring signatures, and ring

confidential transactions to hide movement of the cryptocurrency. While Bitcoin

transactions leave behind tracks akin to a person's boot prints preserved in concrete, the

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[118] Greenberg, "Monero, the Drug Dealer's Cryptocurrency of Choice."

[119] Brian Barrett, "A New Kind of Ransomware Tsunami Hits Hundreds of Companies," *Wired*, July 2,
2021, https://www.wired.com/story/kaseya-supply-chain-ransomware-attack-msps/; MacKenzie Sigalos,
"Why some cyber criminals are ditching bitcoin for a cryptocurrency called monero," *CNBC*, June 14,
2021, https://www.cnbc.com/2021/06/13/what-is-monero-new-cryptocurrency-of-choice-for-cyber-
criminals.html.

traces of Monero are like those on a well-trodden stretch of coarse gravel, by design a

path unable to take the clear imprint of a single traveler's sole. Monero is an alternative

cryptocurrency with the privacy features Bitcoin was imagined by many to include,

making it ultimately more satisfying to an anarcho-capitalist desire for currency free from

state surveillance and control. As a result, critiques of Bitcoin as insufficient when

compared to its descendant Monero come from those on reddit who have a degree of

technical awareness and belief in the broader project of cryptocurrency. In a sense,

Monero is what Bitcoin was merely imagined to be. XMR is more "BTC" than actual

BTC.

On another top ranked reddit post which links to an October 2019 *Forbes* report

titled "IRS Followed Bitcoin Transactions, Resulting In Takedown Of The Largest Child

Exploitation Site On The Web," additional comments indicate a growing awareness of

the cryptocurrency's traceability (Figure 18).[120]

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[120] u/i_dont_feel_creative, reddit, comment, October 17, 2019,
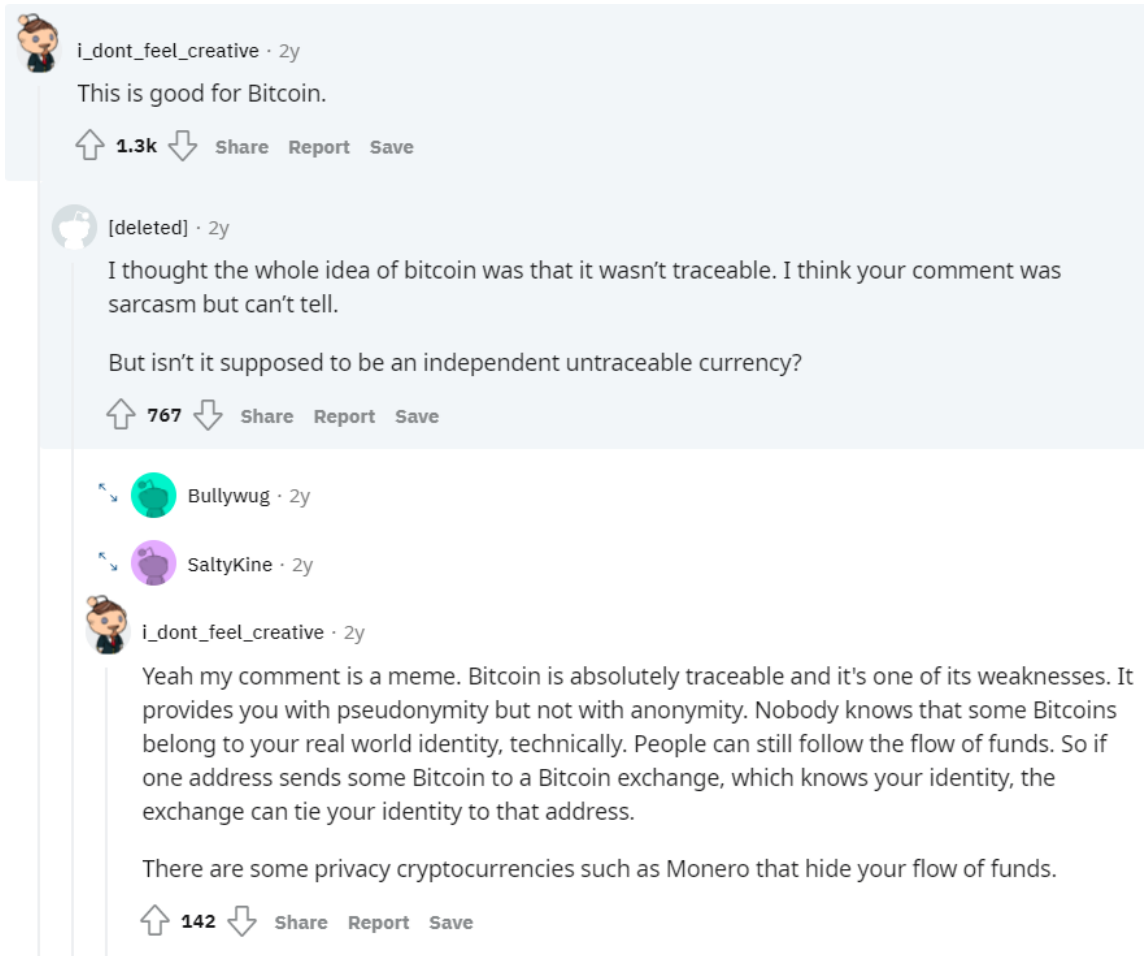https://www.reddit.com/r/worldnews/comments/dj2jro/comment/f40jkom.

Figure 18: Sarcasm & Clarification[121]

As the user u/i_dont_feel_creative informs the user who has since deleted their account

(first by sarcastically deploying a statement associated with the prosperity technologians

who are impervious to Bitcoin's flaws), and as I've described above, a Bitcoin

transaction is in fact more visible than a credit card transaction as it can be seen not only

by banks, businesses, and governments, but also by anyone with the capability to

examine the Bitcoin blockchain or resources to pay for the services of Chainalysis or its

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[121] u/i_dont_feel_creative, "This is good for Bitcoin"; additional comments from u/Bullywug, u/SaltyKine and others collapsed in this figure to show response by u/i_dont_feel_creative.

competitors.[122] Further, as other commenters on the same post note, one's purchases on the Silk Road dark website via Bitcoin were recorded permanently in the blockchain without the potential for expungement, just as the details of Block 0 mined on January 3, 2009 will always be visible as long as Bitcoin persists (Figure 19).[123]
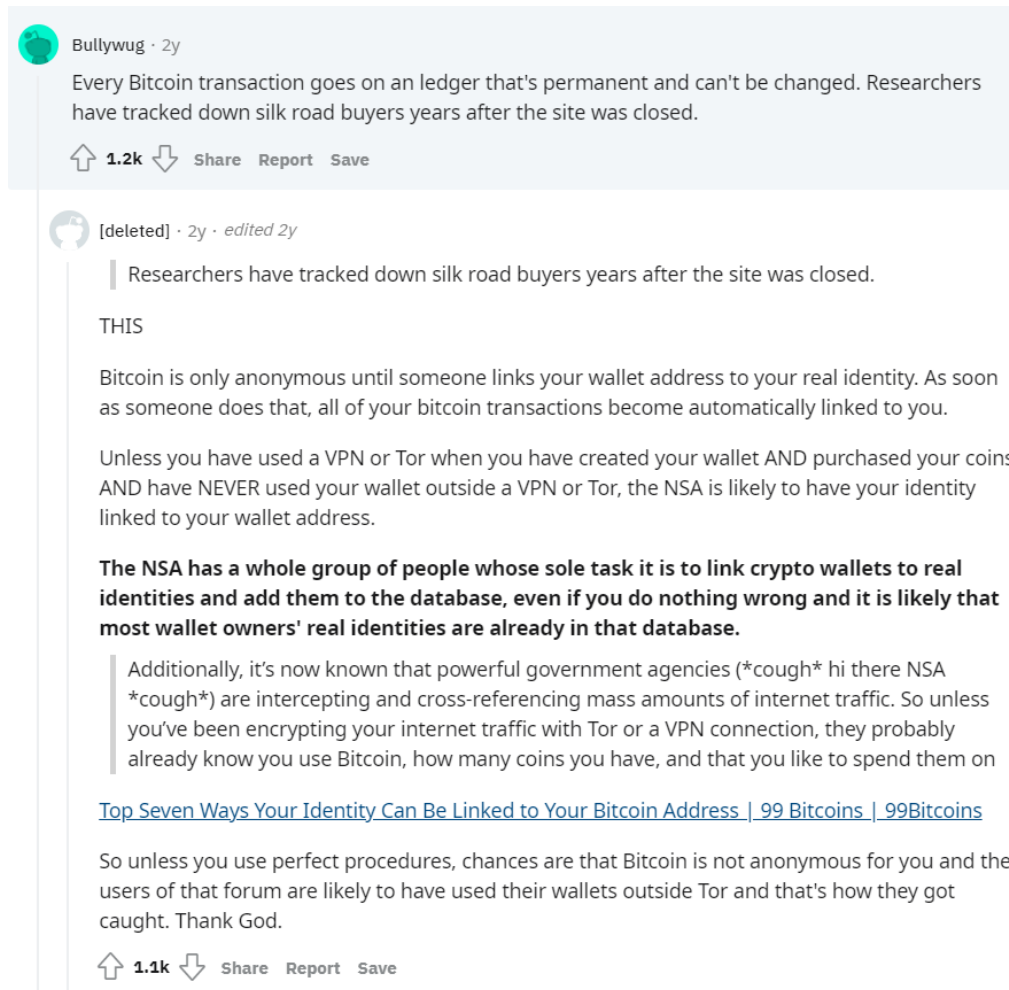

Figure 19: Permanence and NSA Surveillance [124]

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[122] Know Your Meme, "'This Is Good For Bitcoin,'" *Know Your Meme*, December 29, 2017, https://knowyourmeme.com/memes/this-is-good-for-bitcoin.

[123] u/Bullywug, reddit, comment, October 17, 2019, https://www.reddit.com/r/worldnews/comments/dj2jro/the_largest_dark_web_child_pornography_site_in/f40k2ja/; "Block: 0 | Blockchain Explorer," *Blockchain.com*, accessed August 8, 2022, https://www.blockchain.com/btc/block/0.

[124] u/Bullywug, "Every Bitcoin transaction goes on an ledger…"

While expertise and rationality are emphasized in arguments against the skeptics who imagine the NSA is listening to Alexa users in their homes, in the case of Bitcoin such reasoning is effectively paired with skepticism of Bitcoin proponents' claim that the cryptocurrency is beyond the reach of regulators and law enforcement. One might even imagine Bitcoin to be the currency equivalent of Anom, an encrypted messaging app used for a time by more than three hundred organized crime rings around the world on more than twelve thousand specialized devices, which in June 2021 was revealed to have been designed by an FBI informant who included a "master key" allowing law enforcement access of the supposedly private communications.[125] Though no evidence suggesting such origin of the cryptocurrency has emerged, examples such as Anom lend plausibility to the supposition that an agent using the pseudonym "Satoshi Nakamoto" created Bitcoin while seated at her desk in the J. Edgar Hoover Building. Towards avoiding any surveillance of transactions by intelligence agencies, Bitcoin should be avoided. As one comment included above advises, "Buy a house with BTC, buy drugs with XMR."[126]

One caveat regarding the term "privacy" deserves consideration before advancing to the second term—"scam"—appearing prominently in the rhetoric against Bitcoin on reddit. The right to individual privacy often conflicts with social demands for transparency. Though Bitcoin's transparent design is most often considered a flaw in these comments, it is at moments also recognized to have positive consequences, such as the takedown of the biggest child pornography dark website and arrests of 337 patrons

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[125] Yan Zhuang, Elian Peltier, and Alan Feuer, "The Criminals Thought the Devices Were Secure. But the Seller Was the F.B.I.," *The New York Times*, June 9, 2021, https://www.nytimes.com/2021/06/08/world/australia/operation-trojan-horse-anom.html.

[126] u/zacrih, reddit, comment, January 14, 2021, https://www.reddit.com/r/worldnews/comments/kxc65n/comment/gj9wak1.

living in countries around the world.[127] The inextricable relationship between privacy and transparency is not something to be explored in detail here, but must be noted as appearing even in comments which predominately favor the privacy offered by Monero, but not by Bitcoin. In the case of the reactionary French computer programmer who in December 2020 sent Bitcoin to far-right figures and organizations in the U.S. before committing suicide, some comments on the highest ranked reddit post regarding Bitcoin suggest that to leave a suicide note on the Bitcoin blockchain rather than a transaction hidden by Monero was the intention (Figure 20). To be discovered, as was his automated blog post, was the point.
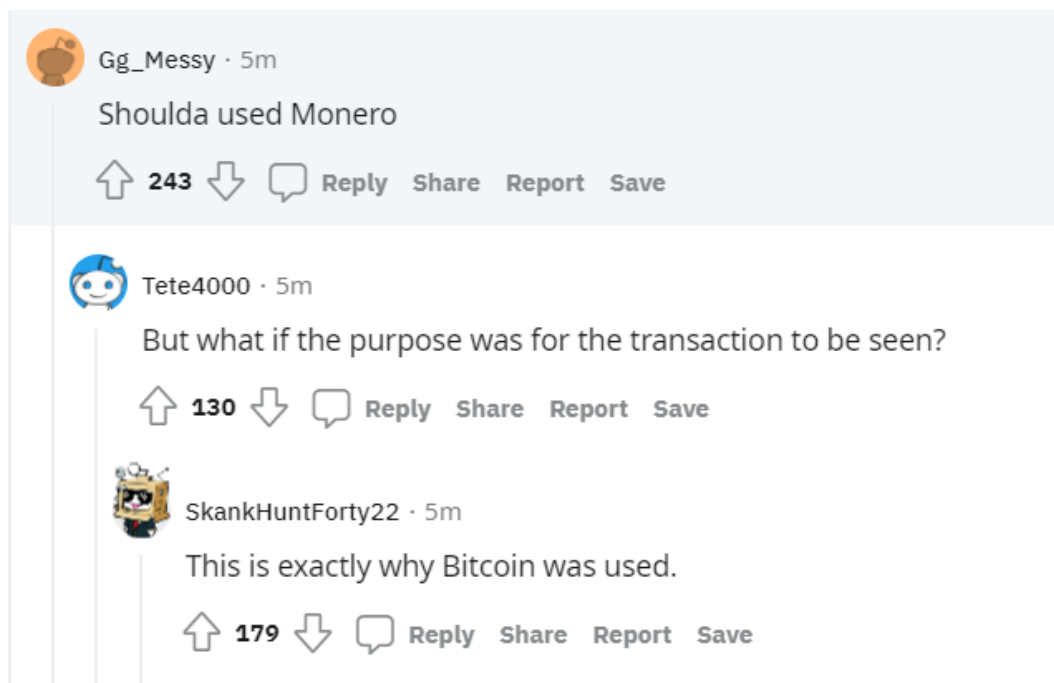

Figure 20: "This is exactly why Bitcoin was used" [128]

[127] Kelly Phillips Erb, "IRS Followed Bitcoin Transactions, Resulting In Takedown Of The Largest Child Exploitation Site On The Web," *Forbes*, October 16, 2019, https://www.forbes.com/sites/kellyphillipserb/2019/10/16/irs-followed-bitcoin-transactions-resulting-in-takedown-of-the-largest-child-exploitation-site-on-the-web/?sh=31c804bc1ed0.

[128] u/Gg_Messy, reddit, comment, January 14, 2021, https://www.reddit.com/r/worldnews/comments/kxc65n/comment/gja1371.

"Scam"

Among the most prominent posts on reddit concerning Bitcoin are three which present the cryptocurrency as not a technologically-flawed currency but as a dangerous financial instrument.[129] The first was a January 2018 post submitted to the r/science subreddit by u/mvea, who is also a moderator of the forum (Figure 21).[130] "The New Reddit Journal of Science" reads the banner atop r/science, which has rules that are more strict than those of most subreddits, such as the following: "No off-topic comments, memes, low-effort comments or jokes."[131] In "flair"—which is additional subreddit-specific information attached to a username and shown on that forum (e.g. on r/nyc a user's flair may indicate their borough)—u/mvea claims to hold an MD, PhD, JD, and MBA, and work as a clinical professor of medicine. "Yes, I have those degrees," u/mvea states in a short biography on a user page, which indicates the account was started in May 2006 and has earned nearly 29 million "Karma" points granted through the "upvote-downvote" process on the user's posts and comments across reddit.[132] "I do have a day job, I just like Reddit," u/mvea adds.[133]

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[129] These posts are those ranked 5-7 in Appendix B.

[130] u/mvea, "Researchers find that one person likely drove Bitcoin from $150 to $1,000, in a new study published in the Journal of Monetary Economics. Unregulated cryptocurrency markets remain vulnerable to manipulation today," reddit, post, January 16, 2018, https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/.

[131] "Reddit Science," reddit, accessed on August 8, 2022, https://www.reddit.com/r/science/.

[132] u/mvea, "MVEA (Melb, Vic, E Australia) (u/mvea) – Reddit," reddit, profile page, accessed May 13, 2021, https://web.archive.org/web/20210513000601/https://www.reddit.com/user/mvea.

[133] u/mvea, "MVEA (Melb, Vic, E Australia) (u/mvea) – Reddit."

The January 2018 post by u/mvea consists of merely a link to an article published the previous day by the online news outlet *TechCrunch*.[134] Titled "Researchers find that one person likely drove Bitcoin from \$150 to \$1,000," the article is a brief write up of an academic publication in the *Journal of Monetary Economics* which reveals how in 2013 the cryptocurrency's value was probably manipulated by a series of trades made by two bots.[135] Instead of Belfort and his brokerage illegally pumping and dumping stock, a technologically-sophisticated cryptocurrency trader is suspected to have single-handedly caused Bitcoin's increase in value. Though such manipulation was not illegal, it is recognized by many observers as akin to Belfort's schemes: a scam.

Figure 21: "The New Reddit Journal of Science" [136]

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[134] u/mvea, "Researchers find that one person likely drove Bitcoin."

[135] John Biggs, "Researchers find that one person likely drove Bitcoin from \$150 to \$1,000," *TechCrunch*, January 15, 2018, https://techcrunch.com/2018/01/15/researchers-finds-that-one-person-likely-drove-bitcoin-from-150-to-1000/; Neil Gandal, JT Hamrick, Tyler Moore, and Tali Oberman, "Price manipulation in the Bitcoin ecosystem," *Journal of Monetary Economics* 95, (2018): 86-96, https://doi.org/10.1016/j.jmoneco.2017.12.004.

[136] u/mvea, "Researchers find that one person likely drove Bitcoin."

Though over four years had passed since the manipulation described in the article,

corresponding roughly to the period between the 2013 and 2017 booms in Bitcoin's

value, comments on the post describe being unsurprised by the findings as

contemporaneous manipulation was apparent. However, this scheming in 2018 wasn't

limited to the actions of one person trading Bitcoin via bots. Such practices included
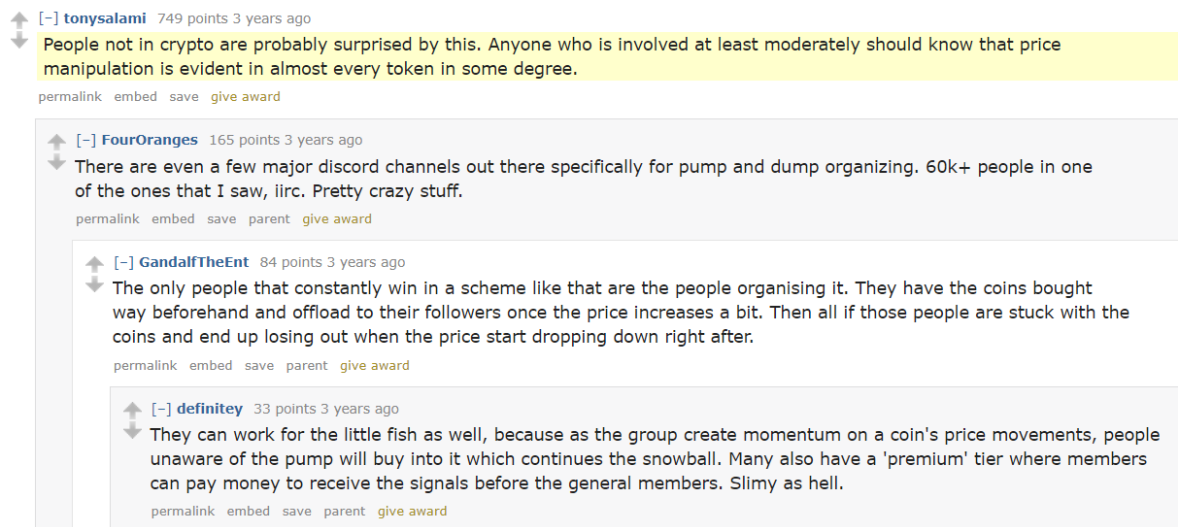
many engaged in "pump and dump organizing" on the chat service Discord (Figure

22).[137]

Figure 22: Organizing Pump and Dumps [138]

As Bitcoin and alternative cryptocurrencies began to garner widespread attention, with

stories of early adopters who became wealthy appearing prominently in news coverage of

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[137] u/tonysalami, reddit, comment, January 16, 2018,
https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/dsrnphs/
; Elizabeth Lopatto, "Welcome to the Stonk Market," *The Verge*, November 1, 2021,
https://www.theverge.com/22744728/money-fandom-cryptocurrency-retail-trades-stocks; Discord is a
social media platform in the broadest sense of the concept, but I think better described as a chat service to
distinguish it from the news feed & user pages format of Facebook and Twitter. Along with reddit, it has
been an important nexus for those active in what has become known as the "stonk market," where retail
traders have organized mass purchases of GameStop Corporation and AMC Entertainment Holdings Inc.
shares for the lulz.

[138] u/tonysalami, "People not in crypto are probably surprised by this."

such technologies, the reddit comments described emerging parallel phenomena of

cryptocurrency scams, specifically a version of the pump and dump to which the old

phrase "rug pull" has been applied.[139] "They have the coins bought way beforehand and

offload to their followers once the price increases a bit," writes u/GandalfTheEnt in 2018

of malicious cryptocurrency developers engaging in the practice, continuing, "Then all if

[sic] those people are stuck with the coins and end up losing out when the price start [sic]

dropping down right after."[140] Of the many examples in the years that followed, *The*

Washington Post reported on one instance in late 2021, where a coin named after a

popular TV series (a show which dramatized increasing economic hardship) was revealed

to be such a scheme:

> On early Monday morning, the value of a Squid coin collapsed from a high of just
> over $2,860 to effectively zero as cryptocurrency traders watched the token's
> unknown creators clean out some $3.3 million in funds, according to digital
> records.
> The maneuver, known as a "rug pull" in cryptocurrency circles, occurs when a
> token's creators abandon the project by exchanging many virtual coins for real-
> world cash. They quickly drain liquidity from the product, effectively driving the
> coin's value to zero and leaving other investors holding the bag in an apparent
> scam.[141]

In 2013, a similar potential existed for a Bitcoin pump and dump, as revealed by the

manipulation of one trader. One proponent of the cryptocurrency notes in a comment,

"It's very misleading to say the BTC market is still vulnerable to this manipulation when

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[139] Amy Cheng, "'Squid Game'-inspired cryptocurrency that soared by 23 million percent now worthless after apparent scam," *The Washington Post*, November 2, 2021, https://www.washingtonpost.com/world/2021/11/02/squid-game-crypto-rug-pull/.

[140] u/GandalfTheEnt, reddit, comment, January 16, 2018, https://old.reddit.com/r/science/comments/7qs5xz/researchers_find_that_one_person_likely_drove/dsrwmqs/.

[141] Cheng, "'Squid Game'-inspired cryptocurrency that soared."

the market is now exponentially bigger."[142] As more Bitcoins have been mined and the amount held by individual traders decreased from hundreds to dozens to tenths, the ability of one person—even the pseudonymous creator Nakamoto—to influence the cryptocurrency's value does appear to be increasingly limited. The big Bitcoin scam forecasted by critics isn't likely to be a rug pull by the creator or a pump and dump by an individual trader. As some redditors note, a collective promotion of Bitcoin by holders makes it more like a Ponzi scheme.

Named for Charles Ponzi, an early 20th century failed arbitrager who paid earlier investors with funds garnered from later investors because his practice wasn't as profitable as claimed, the Ponzi scheme can be understood as a fraudulent strategy to manage discrepancy between belief and reality.[143] Forty years before Ponzi's scam, Boston banker Sarah Howe had operated a similar scheme in 1880 with her Ladies' Deposit Company, which promised both access and unrealistic returns to unmarried women depositors (who were excluded from opening accounts with established banks).[144] Howe paid the interest of older accounts with new deposits, before revelation in the *Boston Daily Advertiser* led to a bank run by depositors and unravelling of the scam. In both historical cases, a single person facilitated the satisfaction of old promises via an increasing creation of new ones, and that individual was scapegoated as the villainous

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[142] u/scroopy_nooperz, "It's been like 5 years since BTC hit 1k USD."

[143] Steve Weisman, "The History of Ponzi Schemes Goes Deeper Than the Man Who Gave Them His Name," *Time*, August 12, 2020, https://time.com/5877434/first-ponzi-scheme/; Daniel Akst, "The Original Ponzi Schemer," *The Wall Street Journal*, October 15, 2020, https://www.wsj.com/articles/the-original-ponzi-schemer-11602778470.

[144] Rose Eveleth, "The No. 1 Ladies' Defrauding Agency," *Longreads,* July 2, 2019, https://longreads.com/2019/07/02/the-no-1-ladies-defrauding-agency/.

architect of their investors'/depositors' misfortune. Ponzi's name became forever

attached to an age-old fraud even as he didn't pioneer it, and Howe was described as

"short, fat, very ugly, and so illiterate as to be unable to write an English sentence, or to

speak without making shameful blunders," by the press in the wake of her bank's

collapse, even as historical evidence suggests such depictions to be untrue.[145] Without

absolving these fraudsters of their respective crimes, it might be asked: do the scammed

also bear some amount of responsibility for their belief in the unrealistic returns

promised? Even as payment of earlier adopters provides false evidence of honesty, might

we recognize those who lost money as insufficiently skeptical in matters of personal

finance? They should know the coin pulled from behind their ear was in the magician's

hand all along, but perhaps they want to believe the illusion.

I ask these questions not to blame those swindled by Ponzi or Howe—especially

as the gender discrimination in contemporary financial practices faced by victims of the

latter was what enabled exploitation by a con woman who used expressions of solidarity

to gain their trust (i.e. an "affinity fraud")—but to consider a type of Ponzi scheme

without a Ponzi to facilitate it: a "network scam" with an absent author.[146] As Swartz has

noted, such a scheme has no con artist to pass the newly acquired funds to older marks,

yet this flow is nevertheless essential to the scam.[147] In the Ponzi-less scheme of Bitcoin,

the pseudonymous creator has long ago abandoned the project, and such transfer occurs

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[145] Eveleth, "The No. 1 Ladies' Defrauding Agency."

[146] Swartz, "Theorizing the 2017 blockchain ICO bubble as a network scam"; Sohale Andrus Mortazavi, "Cryptocurrency Is a Giant Ponzi Scheme," *Jacobin*, January 21, 2022, https://jacobinmag.com/2022/01/cryptocurrency-scam-blockchain-bitcoin-economy-decentralization; Similarly, Sohale Mortazavi describes this fraudulent form as "the people's Ponzi."

[147] Swartz, "Theorizing the 2017 blockchain ICO bubble as a network scam."

through an automated and decentralized structure. The evangelists of prosperity

technology profit from conversion, and there is no god. Or more plainly, those who have

Bitcoin collectively promote the cryptocurrency and see their holdings increase in value

when others newly acquire it. If Bitcoin becomes worthless and demand disappears, that

the same advocates will be among those left holding the bag is not certain. Writing for

Financial Times, expert economist Robert McCauley speculates that the collapse of

unregulated Bitcoin would be much worse than the end of a Ponzi scheme, as regulatory

structures have allowed victims of Bernie Madoff's expansive Ponzi scheme to recoup 70

percent (approximately $14 billion) of their original investment from pursuing those who

withdrew their funds with returns before the firm became insolvent.[148] In the case of

Bitcoin, where the proof-of-work cryptographic process simultaneously obscures the flow

of invested funds and converts a portion thereof into carbon emissions, "there would be

no long-running legal effort to chase down those who cashed in their bitcoin early in

order to redistribute their profits to those left holding bitcoins," writes McCauley,

concluding, "holders of bitcoin would then only wish it had been a Ponzi scheme."[149]

On another reddit post (a January 2018 submission to r/news linking to a *BBC*

News article describing how the rapper 50 Cent rediscovered 700 Bitcoins he owned, then

worth approximately $8 million), a comment which primarily criticizes Bitcoin's

inability to function as a medium of exchange also indicates growing awareness of the

collaborative scam:

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[148] Robert McCauley, "Why bitcoin is worse than a Madoff-style Ponzi scheme," *Financial Times*, December 22, 2021, https://www.ft.com/content/83a14261-598d-4601-87fc-5dde528b33d0.

[149] McCauley, "Why bitcoin is worse than a Madoff-style Ponzi scheme"; Mortazavi, "Cryptocurrency Is a Giant Ponzi Scheme."

I always advocated that Bitcoin's price is merely based on a self-fulfilling prophecy than real case use.

There's barely anybody doing payments (or even accepting them, there are way less shops accepting Bitcoin today than 1 year ago) in Bitcoins.

Everybody's like "buy bitcoins it will go up", most hold those bitcoins and it goes up as supply goes down. It's basic economics. I have yet to see how and why normal dudes will use Bitcoins instead of their dollars and I see no reasons for it. The German Central Bank put it perfectly well: there are no reasons for the average consumer to use cryptocurrencies where they can use a fiat currency. Fiat currencies are widely accepted, easy to use, fast, you can give them to your daughter for her lunch, don't rely on connections and so on.

While the blockchain is a very nice invention that may bring a lot to the world, especially in the IoT sector, people thinking it will replace money are beyond delusional.

And that comes from somebody who made quite some money on them and likes ideas such as Ethereum.

But it's an investment, in what? In the belief tomorrow somebody will pay more than you did. Good luck.[150]

Appearing shortly after the late 2017 Bitcoin boom, this comment turns attention from

practical use of Bitcoin to the growing Ponzi-less scheme, linking Bitcoin analogically to

the age-old practice of speculative investment: "the belief that tomorrow somebody will

pay more than you did." With reference to their own participation in cryptocurrency

trading and the guidance of the German Central Bank, u/ep1939 foregrounds expertise in

their criticism of the "delusional" Bitcoin evangelists who perpetuate the collaborative

scam in the name of monetary revolution.

In the comments beneath a December 2017 post about Bitcoin on the r/Jokes

subreddit, a query and response similarly indicate the cryptocurrency's inability to serve

as a medium of exchange, even as it can be otherwise useful (Figure 23).[151] The initial

comment uses the acronym "ELI5" as shorthand for "explain like I'm five," a phrase

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[150] [deleted], reddit, comment, January 25, 2018, https://old.reddit.com/r/news/comments/7sye51/50_cent_forgot_he_had_a_stash_of_bitcoin_now/dt8u3c0/.

[151] u/cubesnack, "A boy asked his Bitcoin-investing dad…" reddit, post, December 8, 2017, https://old.reddit.com/r/Jokes/comments/7ieoji/a_boy_asked_his_bitcoininvesting_dad/.

commonly used across reddit to request a simplified version of complex descriptions

(particularly on the subreddit r/explainlikeimfive) but appearing here as a name for such

explanations and used accordingly as a noun.

Figure 23: Ask an economist to ELI5[152]

Beginning with an appeal to the authority of an expert, the response from a since deleted

account goes on to describe the effects of using a commodity limited in quantity (whether

naturally as in the case of gold, or artificially as in the case of Bitcoin) as a currency. This

is an argument against "the Bitcoin standard" which would be proposed by the economist

Ammous in his book of the following year, even as it shares his understanding of gold

and Bitcoin as "hard" money.

Notably, the explanation concludes with an acknowledgement of Bitcoin as a

speculative asset, one that a smart investor can use advantageously. As in the previous

comment, there is an important financial skepticism at the core of this perspective, which

acknowledges the failure of Bitcoin as a currency and emergence as a Ponzi-less

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[152] u/deesmutts88, reddit, comment, December 8, 2017,
https://old.reddit.com/r/Jokes/comments/7ieoji/a_boy_asked_his_bitcoininvesting_dad/dqyct4z/.

investment scheme, yet also suggests an opportunity for those who are sufficiently prudent. With an awareness of Bitcoin's issues and a cautious strategy, Bitcoin can be among the many avenues for experts to take advantage of the uniformed retail investor, who buys the cryptocurrency whether for a belief in the original ideological project or the logic of prosperity technology. For nonexperts aware enough to know that they know little about Bitcoin, implied is a warning: don't try this at home. An expert sufficiently clever and skeptical of Bitcoin as a revolutionary technology can exploit those Bitcoin proponents with grand visions (whether of an anarcho-capitalist utopia or merely exorbitant, personal wealth) who are not. One might wonder, are many of those Bitcoin proponents cynically engaged in such a project of their own? Or further, does such a networked, author-less scam ultimately appear little different from the broken financial system it seeks to supplant? Perhaps so, in which case the unregulated Bitcoin scam might illuminate the mildly regulated latter, and the skepticism of financial experts toward Bitcoin could be recognized as projection.

In Bitcoin We Don't Trust

In many contexts, skepticism is subtly discouraged, even when as well-delivered constructive criticism it aims to benefit the person(s) presenting information or plans which are doubtworthy. The skeptic does not go with the groupthink flow, often suffering consequences as a result. In an era greatly influenced economically and politically by Norman Vincent Peale's 1952 book *The Power of Positive Thinking*, skepticism is antagonistic toward the unrealistic ambitions of entrepreneurs, politicians, and entrepreneurs-turned-politicians. This dynamic is evident also in the relationship between Bitcoin's proponents and opponents on reddit, where those believers in prosperity

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technology cast the cryptocurrency's skeptics as negatively minded detractors, and the skeptics describe the believers as irrational devotees of a technologically-flawed currency or financially-flawed investment instrument.

It is the logics of technological and financial skepticism which drive opposition to Bitcoin on reddit. Unlike those logics previously described, here is a bifurcation as a result of two similar but separate patterns in use of the terms "privacy" and "scam." The separate lines of opposition are characterized by their attachments to the fields of computer science and finance (as well as economics more broadly), respectively. In consideration of "privacy," it is the discourse of computer science expertise from which blockchain technology emerged which structures the criticism. For those critiques, it is Bitcoin's inability to offer the privacy assumed by many and which is available through use of alternative cryptocurrencies like Monero. This technological skepticism is therefore not directed at cryptocurrencies generally, but specifically at the first: Bitcoin. Bitcoin is here an old version of software, lacking features offered by alternatives developed and released afterwards, yet more widely known and used. Bitcoin is not to be trusted for transactions meant to elude surveillance, say those who otherwise embrace cryptocurrencies and advocate for Monero use before that of a currency without a distributed ledger recording transactions: the U.S. dollar.

While such criticism comes from within the broader cryptocurrency sphere, those arguments against Bitcoin which coalesce in the term "scam" appear to come from outside and with attention to details relevant to and language of finance, as well as economics more broadly. Unlike the criticism of Bitcoin's transparent design, this argument that the unregulated cryptocurrency will lead to exploitation of uninformed

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investors offers no alternative, no technological fix, as the notion of a regulated cryptocurrency is oxymoronic. Bitcoin stands tall among the many alternative cryptocurrencies, serving as a lightning rod upon which those with some expertise in economics but not computer science may focus criticism which applies equally or more to the derivative coins. The resulting investment advice is to avoid Bitcoin as it is a scam, or if you have the requisite competence, be prudent in your Bitcoin trading to get in on the networked, Ponzi-less scheme. Cryptocurrencies, including Bitcoin, are not to be trusted as legitimate investments, and certainly not as media of exchange.

These oppositions to Bitcoin, though similar, may be imagined as positioned on either side of the cryptocurrency's proponents. Those indicating Bitcoin's lack of privacy advocate for the realization of what many imagine it to be, in the design of Monero and other alternatives, pushing beyond what are recognized as the first cryptocurrency's limitations. Those who perceive Bitcoin to be a type of scam argue in the other direction, prioritizing sound economics and financial strategy over the potential for updates to cryptocurrency software (metaphorically speaking) which will nevertheless leave unresolved the essential flaws. While such criticisms of Bitcoin diverge, in both instances it is a distrust of the first cryptocurrency, with reliance on expertise, which pushes away from the logic of prosperity technology. The logics of technological and financial skepticism drive rhetorics which share little more than that which they critique from different positions. "In Bitcoin we don't trust," one can imagine the Monero enthusiast and cryptocurrency detractor stating jointly, before separately detailing their distinct rationales for such distrust.

Whatever the reasoning—technological or financial in nature—it is skepticism of the Bitcoin project and evangelists' claims which serves as the driving logic of opposition to the cryptocurrency on reddit. Though in its design Nakamoto aimed to eliminate the need for trust, particularly in a third-party intermediary of transactions, the instances of skepticism on reddit reveal the importance of trust for Bitcoin's "transactional community," where, as Swartz notes, belief that the community's money has a future is of key importance.[153] Yet we might imagine another orientation toward the cryptocurrency as well, neither trusting nor distrusting, but *glitching* the binary deliberation of Bitcoin on reddit.

<center>*Glitched* Rhetorics</center>

In *The General Theory of Employment, Interest and Money*, Keynes famously described "animal spirits […] a spontaneous urge to action rather than inaction" as a crucial component of business development, more important than even financial prudence.[154] "Individual initiative will only be adequate when reasonable calculation is supplemented and supported by animal spirits," Keynes writes, continuing, "so that the thought of ultimate loss which often overtakes pioneers, as experience undoubtedly tells us and them, is put aside as a healthy man puts aside the expectation of death."[155] Though Keynes's notion of animal spirits is undoubtedly about the need for an optimistic will in order to profit, explore, or merely live in spite of the attendant risks, this optimism is dissimilar to that derived from faith, such as optimism of the proponent logic "prosperity

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[153] Swartz, *New Money,* 16, 18.

[154] John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York, NY: Harcourt, Inc., 1964), 161.

[155] Keynes, *The General Theory of Employment, Interest, and Money*, 162.

<center>184</center>

technology" I've described above. Keynes's animal spirits are not the same as the divine, invisible hand described by Adam Smith.[156] Animal spirits are tied to the natural will, that which drives a person to act despite risk, rather than God's will, which would determine success or failure not as the result of probability, but as part of a grand scheme. To act in accordance with animal spirit is not to promote the general interest as a side effect of pursing one's own interest, but to be doglike (i.e., kynical). Expressions of the animal spirit approach to Bitcoin appearing online are therefore what I consider to be *glitched* rhetorics.

The prototypical dog, Diogenes of Sinope, was said to have engaged in his own currency project. His father, Hicesias, was a banker and purportedly in charge of the Sinope mint which issued the Anatolian city's coinage in fourth century BC, a currency distinct from that of other Greek cities and featuring an eagle standing atop a dolphin on one side.[157] Upon instruction from an oracle to "restamp the currency," Diogenes did just that and was banished from the city as a result.[158] According to the anecdote, Diogenes at first misunderstood the true meaning of the oracle's guidance. As translator Pamela Mensch indicates, "the phrase 'restamp the currency' (*paracharattein to nomisma*) bears a double meaning […] *Nomisma* can refer not just to coinage, but to social customs, and to 'restamp' these can mean to violate custom or innovate in the social sphere."[159] Exiled to Athens, Diogenes would form his philosophy of kynicism in accordance with the

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[156] Adam Smith, *The Wealth of Nations: Books IV-V* (New York, NY: Penguin Books, 1999).

[157] Laertius, *Lives of the Eminent Philosophers*, 6.20; Observation regarding Hicesias's role from Mensch's footnote 29.

[158] Laertius, *Lives of the Eminent Philosophers*, 6.20.

[159] Laertius, *Lives of the Eminent Philosophers*, 6.20. Quote from Mensch's footnote 29.

alternative meaning of the oracle's instruction, challenging civic customs by living with few possessions in a large tub and regularly antagonizing Plato among others.[160]

Just as the *glitch* orientation of internet culture appears descendant from Diogenes's kynicism, an engagement with Bitcoin which incorporates the dual meanings of "restamping the currency" is also apparent. A technology which subverts state currency has been championed by a community seeking not merely individual prosperity but to challenge financial customs. In January 2021, a short squeeze of stock in GameStop Corporation organized largely by visitors to the subreddit r/wallstreetbets exemplifies such a challenge, as retail investors reminiscing about the 2008 financial crisis took aim at hedge funds short selling the stock.[161] "This is all the money I have and I'd rather lose it all than give them what they need to destroy me. Taking money from me won't hurt me, because I don't value it at all. I'll burn it down just to spite them," wrote u/Space-peanut in a poignant post on the forum, which more frequently featured redditors describing themselves as "autists" or "retards," in defiance of linguistic mores.[162] Like Diogenes, this community sought to challenge norms, both of financial rationality and social progress, and cared little about who may be offended. "Like 4chan found a Bloomberg terminal," a description by r/wallstreetbets moderators aptly reads.[163]

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[160] Laertius, *Lives of the Eminent Philosophers*,6.21-28, 6.71.

[161] Matt Taibbi, "'This is for you, Dad': Interview with an Anonymous GameStop Investor," *TK News* (blog), February 6, 2021, https://taibbi.substack.com/p/this-is-for-you-dad-interview-with.

[162] Taibbi, "'This is for you, Dad'"; u/Space-peanut, "This is for you, Dad," reddit, post, January 29, 2021, https://www.reddit.com/r/wallstreetbets/comments/l7sjj9/this_is_for_you_dad/; Christopher Caldwell, "Are GameStop's 'Degenerates' Just Getting Started?" *The New York Times*, February 4, 2021, https://www.nytimes.com/2021/02/04/opinion/gamestock-stock-market-populism.html.

[163] "wallstreetbets," reddit, accessed August 8, 2022, https://www.reddit.com/r/wallstreetbets/.

In the realm of cryptocurrency, Dogecoin is an archetype of the same kynical

culture. Created in 2013 as a joke about then booming cryptocurrencies (including

Bitcoin), Dogecoin is among the first of many cryptocurrencies which would attach

themselves to an internet meme.[164] "Doge," a popular meme format of the early 2010s

consisting of a picture of a Shiba Inu dog surrounded by its thoughts expressed in poor

syntax and Comic Sans font, became the mascot of the project.[165] "Accounts in

mainstream media frequently use the phrase 'based on an internet meme,' which gives

the uncanny impression of a currency pegged to a viral but essentially frivolous idea,"

writes Sarah Jeong of the joke.[166] One of Dogecoin's creators, Jackson Palmer, would

eventually become an outspoken critic of cryptocurrencies, describing them as "an

inherently right-wing, hyper-capitalistic technology built primarily to amplify the wealth

of its proponents through a combination of tax avoidance, diminished regulatory

oversight and artificially enforced scarcity."[167] Regardless, Dogecoin persisted through

the decade and in May 2021 experienced a boom in value following promotion by Elon

Musk, reaching a market capitalization of $49 billion and making at least one person into

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[164] John Herrman, "The Assorted Teachings of Dogecoin," *The New York Times*, May 15, 2021, https://www.nytimes.com/2021/05/15/style/dogecoin-cryptocurrency-investment.html.

[165] Know Your Meme, "Doge," *Know Your Meme*, May 25, 2021, https://knowyourmeme.com/memes/doge.

[166] Sarah Jeong, "Dogecoin," in *Paid: Tales of Dongles, Checks, and Other Money Stuff,* eds. Bill Maurer and Lana Swartz (Cambridge, MA: MIT Press, 2017), 62.

[167] Kevin Roose, "Is There a Cryptocurrency Bubble? Just Ask Doge," *The New York Times*, September 15, 2017, https://www.nytimes.com/2017/09/15/business/cryptocurrency-bubble-doge.html; @ummjackson, "After years of studying it, I believe that cryptocurrency is an inherently right-wing, hyper-capitalistic technology built primarily to amplify the wealth of its proponents…" Twitter, tweet, July 14, 2021, 10:54 AM, https://twitter.com/ummjackson/status/1415353985406406658?s=20&t=EGI7Kqd9CB-RvR8wlUcdBA.

a "Dogecoin Millionaire."[168] While the intended joke of Dogecoin ostensibly eluded some of its holders, it seems more likely that many involved in trading the cryptocurrency became irony poisoned, which is to say repetition led to fading away of any distinction between the joke and belief.[169] The animal spirits, in this case the spontaneity inspired by the "doge," spurs purchase of Dogecoin even as it lacks a cap on supply and therefore the quality of scarcity essential to Bitcoin.[170]

These phenomena organized largely on reddit, among others causing recent confusion for financial establishment figures and journalists, have important antecedents in the way many users of the site communicated and collaborated during the late 2017 Bitcoin boom. This moment was significant in the timeline of an ongoing transition, in which finance is decreasingly dominated by an exclusive and expert elite and retail investors can take major risks. An embrace of such risks, and both the success and failure possible, emerges as a *glitchy* outlook in Bitcoin deliberation on reddit during this period. In addition, a specific event (a *glitchy* tangent to Bitcoin reaching a value of $10,000 in November 2017) in which a reddit user and thousands of collaborators on r/Bitcoin satirized their own subreddit appeared as an early version of the coordination enabling the GameStop short squeeze by r/wallstreetbets. These cultural aspects are examined in

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[168] Nathaniel Popper, "Elon Musk and Snoop Dogg Push Cryptocurrencies to Record Highs," *The New York Times*, May 5, 2021, https://www.nytimes.com/2021/02/08/technology/dogecoin-bitcoin-elon-musk-snoop-dogg.html; Kevin Roose, "He's a Dogecoin Millionaire. And He's Not Selling," *The New York Times*, September 13, 2021, https://www.nytimes.com/2021/05/14/technology/hes-a-dogecoin-millionaire-and-hes-not-selling.html?action=click&module=RelatedLinks&pgtype=Article; Herrman, "The Assorted Teachings of Dogecoin."

[169] Max Fisher and Amanda Taub, "Should We All Be Taking 'Irony Poisoning' More Seriously?" *The Interpreter*, August 23, 2018, https://static.nytimes.com/email-content/INT_4981.html.

[170] MacKenzie Sigalos, "How dogecoin went from a joke to one of the world's top cryptocurrencies," *CNBC*, June 1, 2021, https://www.cnbc.com/2021/05/07/what-is-dogecoin.html.

the sections that follow, toward answering the question: *in what way do redditors* glitch

the deliberation of Bitcoin?

The Two Faces of Bitcoin

Fourth in the list of the highest upvoted posts about Bitcoin is a short text

submission to the r/Jokes subreddit (stylized as a standup comedy club) made in

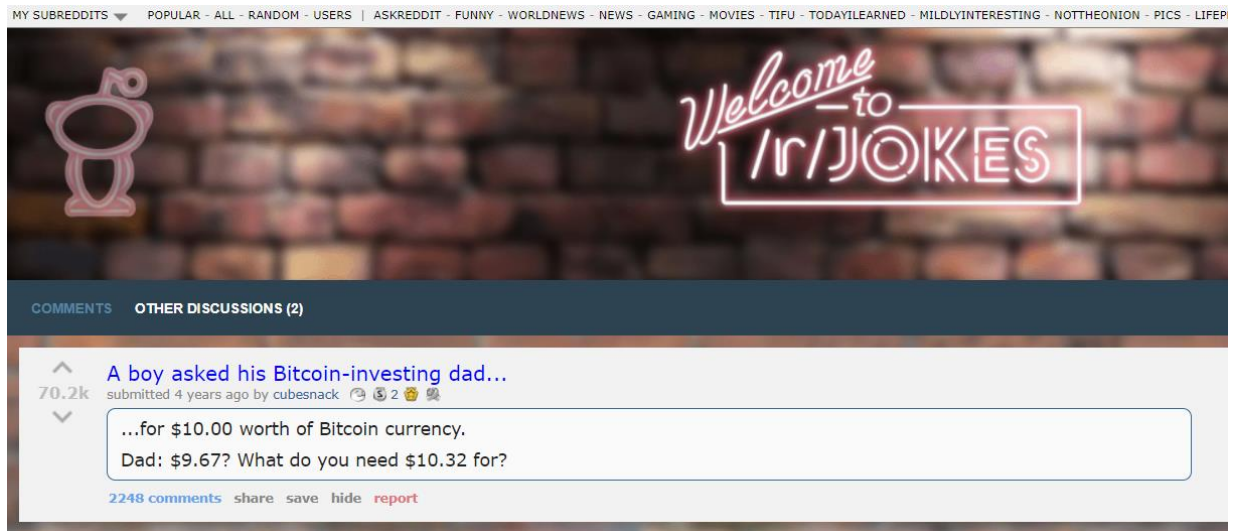December 2017, titled "A boy asked his Bitcoin-investing dad..." (Figure 24).[171]

Figure 24: Setup, Punchline[172]

The text of the post continues from the title, "…for $10.00 worth of Bitcoin currency.

Dad: $9.67? What do you need $10.32 for?" As suggested by some of the post's

comments, the joke is an adaptation of another, so as to remark on Bitcoin. "I always

heard the Jewish version of this: A Jewish son asked his dad for 20 dollars…. Jewish

Dad: 10 Dollars? what do you need 5 Dollars for? Source: am Jewish-ish.." u/Topherhov

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[171] u/cubesnack, "A boy asked his Bitcoin-investing dad…"

[172] u/cubesnack, "A boy asked his Bitcoin-investing dad…"

comments, to which the post's author u/cubesnack replies, "Yeah, so am I. Ish."[173]

Substituted for the stereotype of a miserly Jewish father, the missing premise in the

original enthymemic joke, is the volatility of Bitcoin, which causes the dad of the adapted

joke to reply to the son's request with different amounts in sequential sentences as though

he were a live feed of the cryptocurrency's equivalent value in dollars.

The second most upvoted post about Bitcoin on reddit, a January 2018 post on the

subreddit r/news titled "50 Cent forgot he had a stash of Bitcoin now worth $8m"

consisting of a link to an identically titled *BBC News* article, attracted multiple comments

with the same underlying premise as the joke posted the previous month.[174] A comment

with a score of nearly 18,000 by u/shtpst reads, "Wow 8 million dollars? That's amazing.

You can do a lot with 25 million dollars. That would be a lot for the average person, but I

wonder how much of an impact 700 thousand dollars really has on his life."[175] Another

by u/YesAndWinOmg incorporates the rapper's monetary alias, reading:

> He should chainge [sic] his name to .0000627btc
> edit: .001287btc
> edit: .0000425btc
> edit: .125btc.[176]

[173] u/Topherhov, reddit, comment, December 8, 2017,
https://old.reddit.com/r/Jokes/comments/7ieoji/a_boy_asked_his_bitcoininvesting_dad/dqylzrq/.

[174] u/kellbell500, "50 Cent forgot he had a stash of Bitcoin now worth $8m," reddit, post, January 25, 2018,
https://old.reddit.com/r/news/comments/7sye51/50_cent_forgot_he_had_a_stash_of_bitcoin_now/; "50
Cent forgot he had a stash of Bitcoin now worth $8m," *BBC News*, January 25, 2018,
https://www.bbc.com/news/business-42820246.

[175] u/shtpst, reddit, comment, January 25, 2018,
https://old.reddit.com/r/news/comments/7sye51/50_cent_forgot_he_had_a_stash_of_bitcoin_now/dt8eg2f/.

[176] u/YesAndWinOmg, reddit, comment, January 25, 2018,
https://old.reddit.com/r/news/comments/7sye51/50_cent_forgot_he_had_a_stash_of_bitcoin_now/dt8pbzc/.

Notably, this version predicts a major crash in the value of Bitcoin—the value of one unit dropping from $7,974.48 to $4.00—using the label "edit:" to suggest the commenter repeatedly returned to update with the amount of Bitcoin equivalent in value to fifty cents, even as the comment's timestamp indicates no later changes were made to the original comment. Such jokes proliferated on reddit (as one comment on a comment observes, "I see this joke used on every single Bitcoin post on reddit") and elsewhere online during this period of Bitcoin's history, usually with some slight variation, such as in a December 2017 comic strip by cartoonist Rob DenBleyker.[177] DenBleyker's strip presents a nondescript character describing the rapid volatility of the cryptocurrency as valued in small and large amounts of thoughts, in response to the question, "a bitcoin for your thoughts?" The character eventually remarks, "Now it's worth one thought," answering the question with said thought on a subsequent panel: "I think bitcoin is stupid."

To understand these jokes about Bitcoin volatility as merely critical of the cryptocurrency—akin to how a logic of financial skepticism labels it a scam—would be to miss important facet of a *glitch* orientation to this and other technologies: embrace of failure. In jokes about volatility, those who would otherwise be separated as advocates or critics of Bitcoin are united in celebrating the rise and fall and rise and so on, of an instrument which fails in its original purpose—it is unable to serve as a medium of exchange. In contrast to the Apollonian 401(k), the Dionysian Bitcoin offers a tragicomic financial story to enjoy, whether as a participant or merely as a witness. There is a

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[177] u/Comikazi, reddit, comment, January 25, 2018,
https://old.reddit.com/r/news/comments/7sye51/50_cent_forgot_he_had_a_stash_of_bitcoin_now/dt8mxpn
/; Rob DenBleyker, "Bitcoin," *Explosm*, December 11, 2017, https://explosm.net/comics/rob-bitcoin.

careless attitude toward financial loss and the potential for ruin (i.e., "losing one's shirt"

in financial slang), appearing as a kynical diversion from the proponent logic of

prosperity technology which renders volatility as opportunity. While someone with faith

in Bitcoin sees rock bottom optimistically as a place with no possible path but back up,

the *glitchy* embraces (even if just vicariously through those who would actually buy

Bitcoin) both rock bottom and reaching the summit. A Bitcoin is only "a chain of digital

signatures" without an obverse and a reverse, without heads or tails.[178] Nevertheless, like

the god of liminality Janus who was depicted on Roman coinage, Bitcoin has two

inseparable faces for *glitchy* rhetors: feast and famine.

Tenth of the most upvoted posts regarding reddit and second most upvoted on

r/Bitcoin (behind only the "Malhari Dance" GIF post celebrating Bitcoin reaching a value

of $10,000 in November 2017) is a February 2018 post titled "The last 3 months in 47

seconds."[179] The post, made by u/Tricky_Troll, consists of a clip from "Bart the

Daredevil," a December 1990 episode of *The Simpsons*, edited so as to superimpose

labels onto various things within the scene, including the Bitcoin logo over the face of

Homer Simpson, the hapless father of the animated family (Figure 25).[180] The original

episode featured Homer's son Bart becoming a skateboard daredevil with plans to jump

the "Springfield gorge," a canyon in the town where the family lives. Homer persuades

Bart against the stunt by offering to jump the gorge himself, threatening his own life, but

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[178] Nakamoto, "Bitcoin," 2.

[179] u/Tricky_Troll, "The last 3 months in 47 seconds," reddit, post, February 4, 2018, https://old.reddit.com/r/Bitcoin/comments/7v438b/the_last_3_months_in_47_seconds/.

[180] *The Simpsons*, season 2, episode 8, "Bart the Daredevil," directed by Wesley Archer, written by Matt Groening, James L. Brooks, and Sam Simon, featuring Dan Castellaneta, Julie Kavner, and Nancy Cartwright, aired December 6, 1990, in broadcast syndication, 20th Television.

afterwards begins to roll down the launch ramp accidentally. This is the point at which the video without audio posted to r/Bitcoin on reddit begins. As Homer/Bitcoin launches, a label indicates the cryptocurrency's value of "5k". When Homer/Bitcoin sails high through the air (at which point in the episode Homer exclaims, "I'm gonna make it, this is the greatest thrill of my life, I'm king of the world!"), clouds are labeled sequentially "10k," "15k," and "20k." Soon after it becomes clear that the jump is short, and Homer/Bitcoin crashes into the far side of the gorge, hitting a bush labeled "16k," then a jagged portion of the canyon wall labeled "14k." At the bottom of the canyon, Homer/Bitcoin eventually lies with his limbs bloody and mangled and his clothes in tatters. He is labeled "13k" until the skateboard labeled "AltCoin Boom" falls on his head, after which the label is reduced to "12k." A helicopter labeled "New Buyers" lifts a bandaged Homer/Bitcoin from the gorge, bumping his head into the canyon wall. Atop the wall, he is placed into a waiting ambulance labeled "17k," which immediately crashes into a tree and sends Homer/Bitcoin rolling out on a stretcher back down into the gorge. Again, he hits the bush, this time labeled "14k," before hitting the jagged portion of the canyon wall labeled "10k" and falling to the canyon floor, with the label "9k" and mangled worse than before. The stretcher, labeled "Fake Government Regulation," falls on Homer/Bitcoin's head, after which the label is reduced to "8k," ending the clip.

Figure 25: Rise & Fall [181]

That the video had significant purchase on the subreddit advocating for Bitcoin

suggests a recognition among many Bitcoin holders that the cryptocurrency is not some

political project to believe in, but an investment risk worth taking despite the outcome.

To buy Bitcoin is to jump the gorge, and there's glory in both flying high and crashing to

the canyon floor. As spectators in the clip demonstrate (children who had shown up to

witness Bart's jump, labeled with the logos of other cryptocurrencies and as holders of

Bitcoin), it's hard to look away from such a catastrophic fall. The losers of Bitcoin, those

who invest unwisely in the novel financial instrument and suffer as result, are venerated

in this *glitchy* orientation, as much as (if not more than) the winners. One way to

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[181] u/Tricky_Troll, "The last 3 months in 47 seconds."

understand this embrace of failure is as a manner of coping with repeated failure. It reframes financial failure as part of a binary game, where pain is to be enjoyed as a complement to pleasure. Another interpretation sees Bitcoin-induced failure as necessary for entertainment, and as a result the loser a sacrificial role worth celebrating. Indeed, if "Bart the Daredevil" ended without Homer's accidental and tragic jump, it may not have been remembered nearly thirty years later by so many as one of the best episodes of *The Simpsons*. Homer, foolish and endearing a character as he is, had to be mangled not once, but twice for the audience's satisfaction. Otherwise, there would be no clip with which to analogize Bitcoin's booms and busts and the fate of those who invested in the cryptocurrency.

Pretend Mortification

In addition to the *glitched* rhetoric of Bitcoin volatility, there is another strand which appears in the rhetorical culture of reddit. Like most things that have faithful enthusiasts, Bitcoin advocacy is ripe for satire, and one prominent example of such appeared during the Bitcoin boom of late 2017. As previously described, the all-time top submission on the r/Bitcoin subreddit (ranked 9th across all of reddit) is the "Malhari Dance" GIF, posted on November 29, 2017 by u/LeeWallis with the title, "It's official! 1 Bitcoin = $10,000 USD." [182] In the comments on the post, the most upvoted (6,803 points) reads, "It's official. 100 million dollar pizza," reflecting on the 10,000 Bitcoin pizza purchase of May 2010, and the second most upvoted (2,930 points) laments not investing earlier and shares information on how to acquire Bitcoin.[183] The third most

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[182] u/LeeWallis, "It's official! 1 Bitcoin = $10,000 USD."

[183] u/TarAldarion, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhhq3c/;

prominent comment (2,476 points) poses a strange question, "Where's the guy that's

going to eat his left nut.[sic]," to which a user replies "Came here to say this, where the

hell is the guy with his left nut? It's only November. Will he eat both nuts if it hits

$15K?"[184] Deeper in the thread, another user comments, "NO NUT NOVEMBER =

FAILED," referencing an annual internet meme of male, masturbation abstinence not

clearly relevant to the celebration of Bitcoin.[185]

　　To make sense of these comments and their prominence requires further

examination of the subreddit and this moment in the culture developed and maintained by

its contributors. As in the *glitched* rhetoric of Alexa which imagines sexual surveillance

enabled by the virtual assistant, jokes about male genitalia can be expected on r/Bitcoin, a

forum which one can assume is visited by young men predominantly, as is reddit

generally. Though Bitcoin's innate transparency I've detailed above might enable some

form of sexual surveillance, the reference to "the guy that's going to eat his left nut" by

the comments above is not about a potential vulnerability created by use of the

cryptocurrency but identifies an enthusiast on the forum who two years prior wagered a

precious organ against Bitcoin's potential to rapidly rise. u/calaber24p had in 2015

written in a comment, "If bitcoin are over 10k at any point in 2017 I'll eat my actual left

u/Agastopia, "I'll never forget when I saw a reddit post from this sub celebrating breaking $250 for the first time."

[184] u/SPOKANARCHY, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhhrh0/; u/srsly-not-a-bot, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhkc4e/; The second comment was later revised to read "Edit: Nope. Just nope. The joke went way too far."

[185] [deleted], reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9cd3/its_official_1_bitcoin_10000_usd/dqhjlf5/.

ball. You can quote me on this and remind yourself."[186] Another contributor to the forum,

u/Kittstar123, would in mid-November of 2017 submit a screenshot of u/calaber24p's

2015 comment as a post with the title, "This is why I want bitcoin to hit $10,000," while

the cryptocurrency's value steadily increased and the end of the year approached.[187] It is

the eleventh most upvoted post on the r/Bitcoin subreddit, and in a comment on it by

u/calaber24p, he states, "I always thought bitcoin would hit 10k but I didnt [sic] think it

would happen in 2017, which is why I made the comment […] At this point im [sic]

mostly just trying to run out the clock."[188]

On November 29th when the cryptocurrency reached the milestone figure, posts

and comments across the subreddit revisited u/calaber24p's 2015 wager, in some cases

placing more emphasis on mocking the failure of his reasonable prediction than toward

celebrating Bitcoin's unpredictable rise. For example, a comment by u/Kittstar123's from

this day reads in part,

> Hey guys! We did it, Bitcoin is now $10,000! Who cares about the money though,
> this guy is going to eat his left ball. When I posted this 10 days ago, I was
> honestly doubtful, but I'm not a fucking idiot so I didn't bet my left ball against
> it.[189]

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[186] u/Kittstar123, "This is why I want bitcoin to hit $10,000," reddit, post, November 18, 2017,
https://old.reddit.com/r/Bitcoin/comments/7dpypn/this_is_why_i_want_bitcoin_to_hit_10000/;
@officialmcafee, "if not, I will eat my dick on national television," Twitter, tweet, July 17, 2017, 1:02 PM,
https://twitter.com/officialmcafee/status/887024683379544065?lang=en; Link to the original comment
unavailable. John McAfee, creator of the eponymous anti-virus software who later in life touted his
libertarian views and frequently courted controversy, would make a similar bet in July 2017, writing on
Twitter that if Bitcoin didn't rise above $500,000 within three years "I will eat my dick on national
television."

[187] u/Kittstar123, "This is why I want bitcoin to hit $10,000."

[188] u/calaber24p, reddit, comment, November 18, 2017,
https://old.reddit.com/r/Bitcoin/comments/7dpypn/this_is_why_i_want_bitcoin_to_hit_10000/dpzys0i/.

[189] u/Kittstar123, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9ic3/update_on_this_post_look_in_the_comments/dqhhwrb/.

The original comment had instructed readers, "You can quote me on this and remind yourself," and two years later the subreddit's denizens did just that, often going so far as to tag u/calaber24p, sending him a notification by including his account name in their comments.[190] One post made by u/Sergunchik on the day, titled "Paging /u/calaber24p…" consisted of a graphic reading "10,000 TIME TO EAT THE LEFT BALL," with the Bitcoin symbol (Ƀ) within the zeroes (Figure 26).[191]
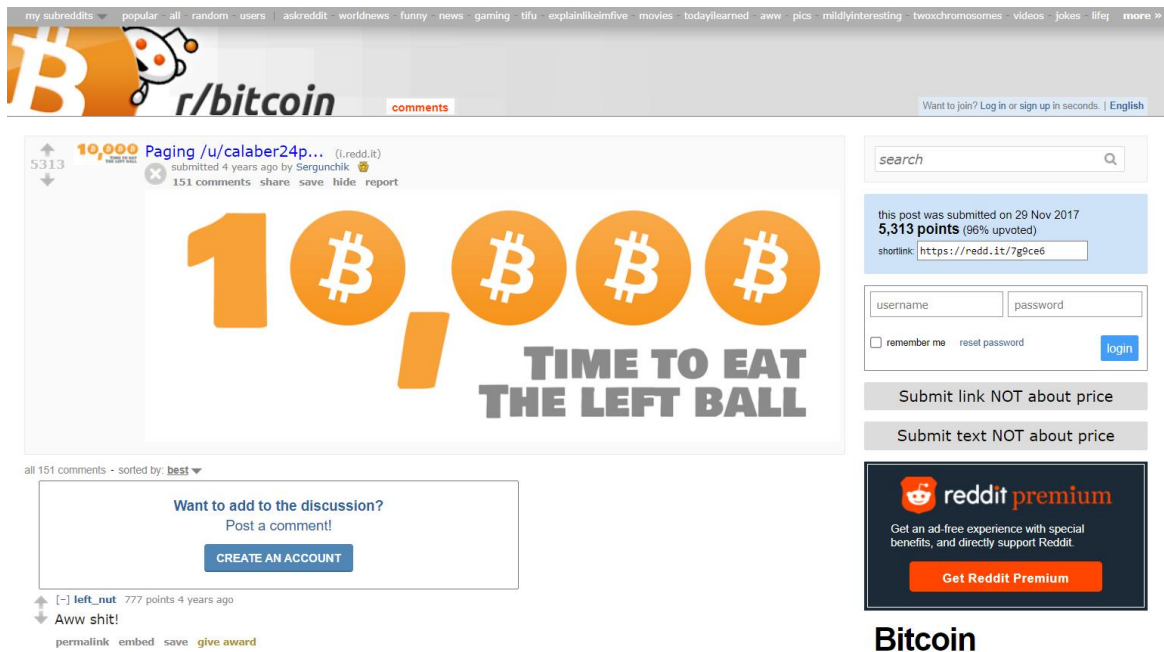

Figure 26: "Paging /u/calaber24p…" [192]

While tangential to r/Bitcoin's focus on the cryptocurrency, this subplot likely garnered the attention of visitors from outside the forum who had been attracted by posts such as the "Malhari Dance" GIF which achieved a degree of prominence (i.e., lots of

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[190] u/Kittstar123, "This is why I want bitcoin to hit $10,000"; Link to the original comment unavailable.

[191] u/Sergunchik, "Paging /u/calaber24p…" reddit, post, November 29, 2017, https://old.reddit.com/r/Bitcoin/comments/7g9ce6/paging_ucalaber24p/.

[192] u/Sergunchik, "Paging /u/calaber24p…"

upvotes) granting visibility across the entire reddit platform. At least this is how I found it, albeit years later, as I read through comments on the archived "Malhari Dance" GIF post. Alongside the earnest proponent and opponent rhetorics of Bitcoin, I found a strange but noteworthy series of comments demanding a specific reddit user eat his left testicle; sacrificial rites recorded online just as an ancient civilization might have etched their own into stone. One could argue the episode is a trivial, silly, or meaningless glut of activity on r/Bitcoin, as weird posts on social media are frequently described. This I think is often a superficial and dismissive approach to analysis, and at minimum less interesting and fun. Sometimes a cigar is just a cigar, but it's sometimes worth exploring a cigar's potential for being a phallic symbol, just as it's worth considering the potential of this juvenile meme circulating on a single subreddit to be a unique *glitched* rhetoric.

Further, I am a digital rhetorical ethnographer, and so I feel compelled to treat what others may describe as internet bullshit as though it were a serious cultural artifact indicative of rhetorical practice. This compulsion led me to find not only this wager and the many reminders which appeared in November 2017 as the $10,000 milestone was reached, but also what followed. First was a comment by u/calaber24p on November 29th as a reply to one of his chief antagonists (u/Kittstar123), which reads, "I AM MAKING THE VIDEO TOMORROW AND WILL POST IT LATE DAY OR MORE LIKELY THURSDAY."[193] A post titled, "Me, Calaber24p, Eating My Left Nut," appeared the

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[193] u/calaber24p, reddit, comment, November 29, 2017,
https://old.reddit.com/r/Bitcoin/comments/7g9ic3/update_on_this_post_look_in_the_comments/dqhhzra/.

next day with reddit's NSFW tag (the acronym meaning "not safe for work" and used on posts of explicit material across the platform) (Figure 27).[194]
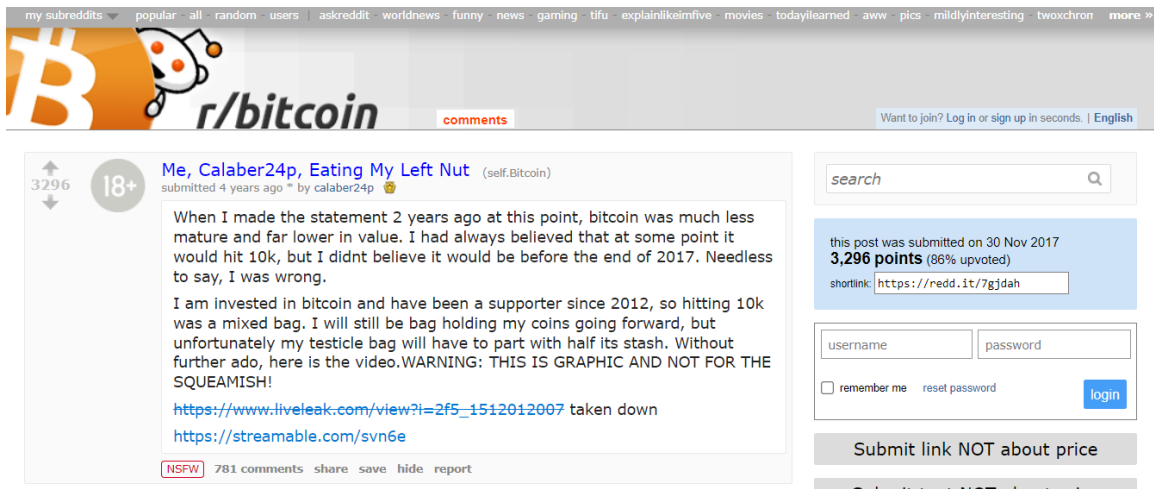

Figure 27: "Me, Calaber24p, Eating My Left Nut" [195]

In the text post, u/calaber24p provides a rationale for his 2015 comment, asserts his support for Bitcoin, and accepts his fate—punishment for inadequate faith in the logic of prosperity technology—stating, "I will still be bag holding my coins going forward, but unfortunately my testicle bag will have to part with half its stash." A warning and two links follow, purportedly to video of the deed. The first link is to a LiveLeak URL, and in an edit to the post is struck through with the addendum "taken down." In a comment, u/calaber24p explains, "Liveleak took the video down and banned me (didnt [sic] even know that was possible)," and provides an alternate link.[196] Described by *The Verge* as "the internet's font of gore and violence," LiveLeak (which shut down in 2021) had a

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[194] u/calaber24p, "Me, Calaber24p, Eating My Left Nut," reddit, post, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/.

[195] u/calaber24p, "Me, Calaber24p, Eating My Left Nut."

[196] u/calaber24p, reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjkpqy/.

reputation for hosting horrifying videos not permitted for distribution on mainstream video platforms such as YouTube.[197] u/calaber24p's comment implies that the footage of him eating his testicle exceeded even the extreme limits of the most permissive video hosting site, requiring an alternative.

Despite the many indications that this post and the video are the culmination of a collectively crafted joke, anyone who has spent time online will at minimum hesitate before clicking the video link. This was my initial response when first coming across the post. I remember the era of internet culture when people would frequently and purposefully spread explicit and disturbing material to horrify others (on random websites at first, followed by links and content on social media). That time was an amplification of earlier gore media periods, dating back at least to when tapes of the 1978 film *Faces of Death* circulated among curious viewers.[198] Pictures of extreme sex acts, videos of torture and killings, and other content have what Theresa Senft calls "the grab," the capacity of affective material online to physically impact those who access it.[199] I do my best to avoid unexpected grabbing, and in the case of u/calaber24p's links decided to first move on to an examination of the comments on his post. These are the most upvoted:

This is disgusting. Why did you do this, OP? For a fucking joke?![200]
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[197] James Vincent, "LiveLeak, the internet's font of gore and violence, has shut down," *The Verge*, May 7, 2021, https://theverge.com/2021/5/7/22424356/liveleak-shock-site-shuts-down-itemfix.

[198] James Hennessy, "The Internet Communities That Love Watching People Die," *Vice*, June 23, 2022, https://www.vice.com/en/article/bvm8qd/the-internet-communities-that-love-watching-people-die.

[199] Theresa M. Senft, *Camgirls: Celebrity & Community in the Age of Social Networks* (New York, NY: Peter Lang, 2008), 46, quoted in Simon Lindgren, *Digital Media & Society* (Thousand Oaks, CA: Sage Publications, 2017), 140.

[200] 876 points. Deleted by user.

Dude. This needs a NSFW tag.[201] [to which a moderator of r/Bitcoin replied, "NSFW tag added. I can't believe I sat through that disgusting video."[202]]

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That's it. I'm out. I don't want to have anything to do with this community ever again. 🫠 [203]

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I TOLD EVERYBODY THAT BITCOIN WAS A FUCKING CULT LOOK AT THIS GUY EATING HIS OWN TESTICLE! FUCK! YOU GUYS ARE INSANE I AM OUT. I THOUGH I WOULD NEVER GIVE UP BUT THIS IS JUST TO MUCH.[204]

-

I'd appreciate if someone could provide a description for everyone who is too pussy to click the link (me).[205] [with a reply, "It's how you imagine it. Horrifying."[206]]

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Can someone ELI5 the squish sound after the first cut? I thought human testicles were supposed to be made of solid matter?[207]

Of the 781 comments on the post, most are similar in expressing their disgust after watching the video. It's only deep in the thread that the truth is revealed, in comments largely downvoted to obscurity by those intending to maintain the illusion. The highest ranked of these is a request from u/J44J to u/ClicksOnLinks, an account which until 2021 offered to click links and describe their destination when tagged by other users, satiating their curiosity while sparing them from unwanted grabbing. "I'm sorry to ruin the joke

[201] u/rookie3k, reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjitup/.

[202] u/gonzobon, reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjqq28/.

[203] 408 points. Deleted by user.

[204] [deleted], reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjzekh/.

[205] 213 points. Deleted by user.

[206] u/bundabrg, reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjub1y/.

[207] u/chochochan, reddit, comment, November 30, 2017, https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqjxd35/.

but I can't be dishonest... He doesn't really eat his left nut, the video is safe,"

u/ClicksOnLinks answers in a comment receiving only 33 points.[208] This quelled the light

concern I had that the video could potentially be graphic as claimed, and so I watched it.

Titled simply, "ball," and viewed more than 57,000 times, u/calaber24p's 2

minute and 51 second video hosted on streamable.com begins with a screen claiming in

bloody font, "The Following Program Is Sponsored By…One Ball Foundation, AND1,

LIVESTRONG, And Viewers Like You," before cutting to a kitchen scene showing four

knives, a tube of ointment, and bandages on a table.[209] Seated at the table is u/calaber24p,

wearing a t-shirt and visible only from the chest down. After a deep sigh, he reiterates the

content of his text post, shows an excessive number of bandages prepared for the

aftermath, and in a frustrating tone describes how though he doesn't want to eat his

testicle it has to be done. u/calaber24p then stands and unzips the fly of his jeans. As he

unbuttons, the video immediately cuts to the music video for Rick Astley's 1987 song,

"Never Gonna Give You Up," rendering it an example of "rickrolling," a prank in which

the music video is presented rather than the expected material. "Rickrolling" originated

on 4chan in 2007 but has been used commonly across various social media since.[210] As

the music video plays in u/calaber24p's video, captions indicate his intention to donate

"half a bitcoin to the Testicular Cancer Foundation" instead of the grotesque act (Figure

28).

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[208] u/ClicksOnLinks, reddit, comment, November 30, 2017,
https://old.reddit.com/r/Bitcoin/comments/7gjdah/me_calaber24p_eating_my_left_nut/dqk9ed6/.

[209] "ball," accessed August 8, 2022, video, 2:51, https://streamable.com/svn6e.

[210] Know Your Meme, "Rickroll," *Know Your Meme*, March 9, 2021,
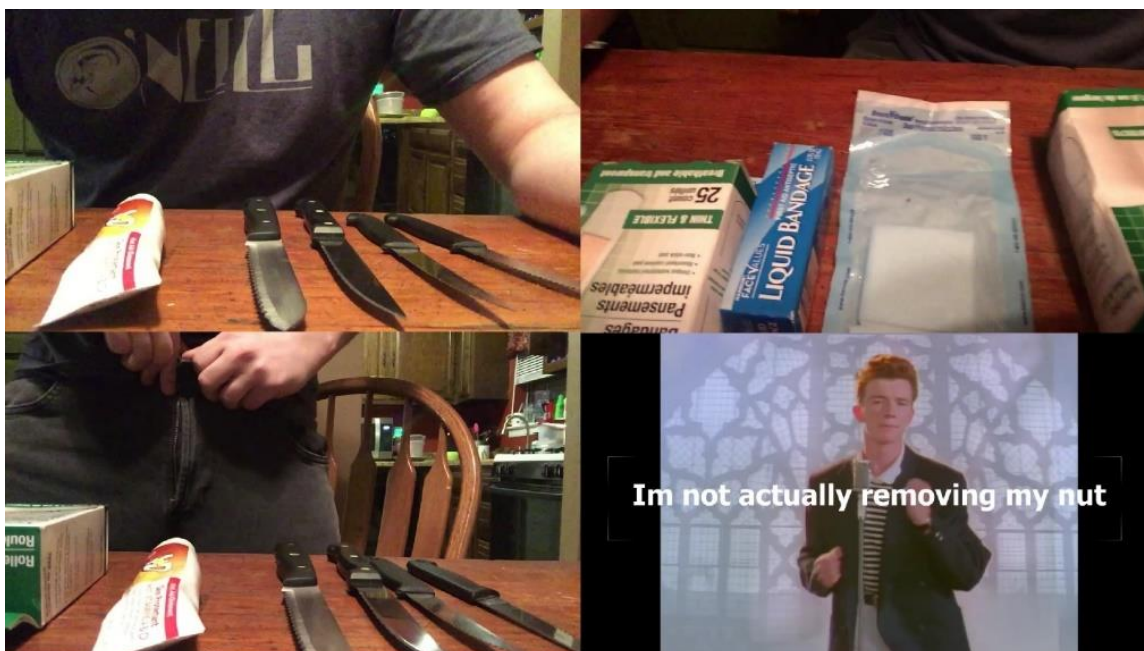https://knowyourmeme.com/memes/rickroll.

Figure 28: "You've been bamboozled, flim flammed."[211]

This concluded conversation about "the guy that's going to eat his left nut" on r/Bitcoin, a sequence of events I've described here in detail to reveal it as a *glitched* rhetoric of Bitcoin on reddit. Key to the joke is the understanding that Bitcoiners' advocacy can resemble evangelical prosperity theology, as I've described above. Not only u/calaber24p recognized this, but so did hundreds of others, who with their own comments and voting in the thread maintained the collaborative illusion that the linked video was truly horrific. Though not without leaks (e.g., u/ClicksOnLinks), this illusion was maintained at an uncommon level for social media, on which widely shared secrets are all but impossible to keep. Further, the phenomenon is not parody by critics of Bitcoin, but self-satire by contributors to the r/Bitcoin subreddit. It is an exaggeration of Bitcoin religiosity to the point where one proponent would engage in mortification of the

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[211] "ball."

flesh to purge himself of impurity, as though participating in what one viewer of the act would frantically realize to be "A FUCKING CULT."[212] Just as Abraham intended to sacrifice Isaac at the command of God, u/calaber24p implied he would sacrifice a reproductive organ to atone for a lack of faith in the cryptocurrency, to engage in bodily mortification to save his digital soul (i.e., reputation among the Bitcoin faithful on the subreddit).

Of course, it was fake. u/calaber24p is not deranged and so the mortification was pretend, as was the witnessing of that act by the other sane participants. The *glitchy* redditors are more committed to the joke than genuine advocacy of Bitcoin (e.g., "Bitcoin is now $10,000! Who cares about the money though, this guy is going to eat his left ball"[213]), and so the contradiction of simultaneous belief and doubt in Bitcoin is not resolved through mortification, nor transcendence.[214] This *glitched* rhetoric of pretend mortification neither redeems nor avoids guilt.[215] As u/calaber24p's example demonstrates, it makes a spectacle of embracing guilt, failure, and the contradiction of simultaneous belief and doubt. Though with a religious tint, this is at the core of what I consider the *glitchy* orientation toward technology.

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[212] [deleted], "I TOLD EVERYBODY THAT BITCOIN WAS A FUCKING CULT."

[213] u/Kittstar123, "Hey guys! We did it, Bitcoin is now $10,000!"

[214] Barry Brummett, "Burkean scapegoating, mortification, and transcendence in presidential campaign rhetoric," *Central States Speech Journal* 32, no. 4 (1981): 254-264, https://doi.org/10.1080/10510978109368104.

[215] Rebecca Solnit, "Why Did We Stop Believing That People Can Change?" *The New York Times*, April 22, 2022, https://www.nytimes.com/2022/04/22/opinion/forgiveness-redemption.html; This approach may be a coping tactic for an era in which genuine mortification has little potency in achieving redemption. In other words, pretend mortification is suited to a cultural climate which demands punishment but follows less frequently with forgiveness or absolution (e.g., the plight of those sent to prison, who will indefinitely be treated as criminals).

Conclusion

Since its cryptic origin in the late-2000s, Bitcoin has had significant impact on the intersecting realms of finance, politics, and technology, as have a few of the derivative currency, finance, and blockchain projects created in its wake. It is no surprise that this impact has been accompanied by persistent controversy, whether in regard to Bitcoin's soundness as an investment, its (in)ability to facilitate transactions free of state surveillance or regulation, or its environmental cost (an aspect present but not as prominent on reddit). By examining the top-ranked posts on the social media site reddit and their comment threads, I have attempted to chart and interpret deliberations regarding Bitcoin.

To begin this chapter, I provided a basic description of Bitcoin as a financial technology development, including the fundamental aspects of its production and circulation on a blockchain. Further, I detailed Bitcoin's utility as a new form of money (i.e., can it serve as a medium of exchange, a unit of account, and/or a store of value?), as informed by an interdisciplinary review of relevant popular and academic literature. Next, I detailed the selection procedures which generated ten reddit posts (and their associated comment threads) to serve as texts for analysis toward answering two questions. First, *what are the terms, patterns, and logics in the binarized reddit deliberations of Bitcoin?* Second, *in what way do redditors* glitch *the deliberation of Bitcoin?*

To answer the first question, I began by offering an analysis of arguments in defense of Bitcoin which regularly employed the terms "buy" and "celebration," as well as entailments, derivations, and synonyms. These terms are employed in a pattern

resembling the discourse of speculative finance, but vernacularized and often without the illusion of sobriety or expertise projected by Wall Street firms. Guiding this proponent rhetoric is a logic I call prosperity technology, which assumes wealth growth as the result of faith in Bitcoin. Central for prosperity technology is trust in the beneficence of technology one may not have the ability or patience to fully comprehend. It is prosperity technology which drives buying Bitcoin—even as it crashes in value—with faith that the cryptocurrency will rebound and rise even higher, meriting celebration.

Next, I have analyzed arguments against Bitcoin to complete an answer to the first of this study's two questions. "Privacy" and "scam" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Bitcoin. Instead of a religious trust, these contributions to the deliberation seek to verify by means of technical expertise. This is the same pattern of expertise and rationality which in the case of Alexa is used to advocate for the virtual assistant, but here is employed in arguments against Bitcoin. It is the logics of technological and financial skepticism which drive opposition to Bitcoin on reddit, but unlike those logics previously described, here is a bifurcation as a result of two similar but separate patterns in use of the terms "privacy" and "scam." Those indicating Bitcoin's lack of privacy advocate for use of Monero and other alternatives, pushing beyond what are recognized as the first cryptocurrency's limitations. Those who perceive Bitcoin to be a type of scam argue in the other direction, prioritizing sound economics and financial strategy over any form of cryptocurrency investment.

With the first question answered, I advanced to the second: *in what way do redditors* glitch *the deliberation of Bitcoin?* Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics, I've described (1) a careless attitude toward

financial loss and the potential for ruin, embracing both rock bottom and reaching the

summit, appearing as a kynical diversion from the proponent logic of prosperity

technology, and (2) a specific sequence of events in which u/calaber24p and other

contributors to the r/Bitcoin subreddit engaged in a self-satirizing of Bitcoin religiosity,

collaborating to imply one proponent of the cryptocurrency would go as far as engaging

in mortification of the flesh to purge himself of impure doubt. These examples, in the

tradition of Diogenes restamping the currency/customs (*paracharattein to nomisma*) and

mostly appearing during the late 2017 Bitcoin boom, are important antecedents for

unusual financial phenomena in the years which followed. As in the case of Alexa, the

glitched rhetorics of Bitcoin on reddit streak as though colorful pixels across the static

public deliberation (*à la* visual glitches on screen), corrupting it and offering a more

complex understanding of how technology emerges and impacts human life.

However similar, *glitching* of the deliberation of Alexa and that of Bitcoin is not

identical, just as literal glitches vary in appearance and effects. In the conclusion which

follows, I aim to further describe the differences between these rhetorics, apparent even

as their similarities merit shared categorization. In doing so, I will reiterate what the

conceptualization of *glitched* rhetorics offers for those interested in rhetorical controversy

of technology (including this application to Alexa and Bitcoin), as well as how analysis

of terms, patterns, logics, and *glitches* with a mixed method may prove useful for

rhetoricians studying vernacular deliberation on social media.

Chapter 4 – Conclusion

What's Next?

The futures of Alexa and Bitcoin are unclear. Alexa's inclusion in the Amazon Astro (a small mobile device with an invite-only release in 2022) and Amazon's acquisition of iRobot (maker of the Roomba) suggests that the virtual assistant may one day inhabit a humanoid robot, with capabilities far surpassing those of the immobile Echo tubes and spheres; something more like Rosie from *The Jetsons*.[1] If any company had the resources to realize such a future, it would be Amazon. If not via internal development, this could perhaps occur after purchase and integration of the robotics company Boston Dynamics, which has designed human and doglike robots with advanced balancing and movement capabilities, even allowing them to resist unexpected pushes and perform athletic and dancing demonstrations.[2] As for Bitcoin, I don't think it's ever likely to become a medium of exchange for the internet as originally intended, nor a unit of account. As I'm writing this in the summer of 2022, a Bitcoin is fluctuating around $20,000 in value, an amount I imagine may be encountered by a reader as absurdly high or low depending on if the cryptocurrency suffers a permanent crash or if the apparent

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[1] Jennifer Pattison Tuohy, "Amazon Astro Review: Too Much Alexa, Not Enough Arms," *The Verge*, June 3, 2022, https://www.theverge.com/23141966/amazon-astro-robot-review; Tom Warren, "Amazon to acquire Roomba robot vacuum maker iRobot for $1.7 billion," *The Verge*, August 5, 2022, https://www.theverge.com/2022/8/5/23293349/amazon-acquires-irobot-roomba-robot-vacuums.

[2] Rodrique Ngowi, "These dancing Boston Dynamics robots have been watched over 23 million times. Here's the story behind the viral video," *Boston.com*, January 21, 2021, https://www.boston.com/news/technology/2021/01/21/boston-dynamics-dancing-robots-video/; Boston Dynamics, "Atlas, The Next Generation," February 23, 2016, video, 2:41, https://youtu.be/rVlhMGQgDkY.

trend of U.S. decline paired with a recession (or depression) renders it a more stable store of value than the dollar.

Whatever may come, this study offers future investigators of Alexa and Bitcoin (be they rhetoricians, ethnographers, or neither) useful insight regarding the specific logics and *glitches* which have shaped the vernacular deliberation of these technologies during their earlier years. In the following pages I will repeat the dissertation's questions, theoretical foundation, methods, and findings before comparing the cases, discussing the implications for analysis of rhetorics circulating on social media and rhetorics of technology, and concluding with some final thoughts on *glitched* rhetorics.[3]

<div align="center">Review of Dissertation</div>

This dissertation examines how people discuss controversial technologies online. Specifically, I have attempted to analyze public deliberation on the social media site reddit (www.reddit.com) of two cases: Amazon's Alexa virtual assistant, and the first cryptocurrency, Bitcoin. In addition, it offers insight regarding approximately the first six years of Alexa as a domestic artificial intelligence artifact and the first twelve years of Bitcoin as a financial technology phenomenon. These systems—and their varied articulations in different devices—are controversial in different ways, but a state of pro-tech vs. anti-tech arguments consistently emerges in public deliberation. Therefore, the first question of this project is: *What are the terms, patterns, and logics in the binarized reddit deliberations of emergent technology?* Beyond this binary, there is an important alternative rhetorical practice of those conflicted and ambivalent, yet not abstaining from

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[3] For readers uninterested in reviewing the previously stated questions, theoretical foundation, methods, and findings, the remainder of this conclusion begins on page 217.

discussion. I have named it *glitching*, and so the second question of this project is*: In what way do redditors glitch the deliberation of emergent technology?*

The answers I've found cannot be stated as simply as these questions, as they are contingent on the specific technology under consideration and all of the tangential yet relevant concerns (e.g. corporate surveillance for Alexa, or speculative finance for Bitcoin). I've examined a variety of rhetorics constituting the deliberations of just two technologies. Though they may be broadly categorized as rhetorics of technology, digital rhetorics, or *glitched* rhetorics, they are plural—many "rhetorics," not "the rhetoric." Further, those ambiguous entries I've identified as *glitched* rhetorics harbor their own internal contradictions (e.g. making fun of one's own Bitcoin investment) in addition to divergence from others in the category. Therefore, the most succinct way I can here answer both aforementioned questions is in two words which lack directness and imply a subsequent ellipsis: it depends.

After identifying my research questions in the introduction, I described a binary essence present in vernacular deliberation of emergent technology and articulated a concept of *glitch* as not only technological error but also an ambivalent condition and rhetorical style which interrupts binary deliberative flows (the dissertation's theoretical contribution to digital rhetoric and rhetoric of technology scholarship). As Jasinski writes, there is a "*dialectic of affirmation and subversion* in deliberative discourse," and for the rhetoric of technology I suggest *glitch* as a paleologism to be used not in a feeble attempt to transcend the binary ("just another instance of binary opposition" as Gunkel notes), but to "inhabit philosophical opposition, resisting and disorganizing it."[4] The noun

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[4] Jasinski, "Dialectic," 167; Gunkel, "Critique of Digital Reason," 23-25; Derrida, *Positions*, 43.

and verb "glitch," with an original use in American English to describe a slip of the tongue on radio airwaves (from the Yiddish noun glitsh—"a slip or lapse"—and verb glitshn—"to slip") and recent exploration by visual artists and art theorists, is well-suited for this purpose.[5] In addition to the literal glitches of technology, I've suggested there is a common condition of life with new technology that can be named *glitchiness*, and that the *glitchy* reveal and express that condition in diverse rhetorics which are themselves *glitched*.

As contemporary phenomena in the long tradition of comedic low talk, *glitched* rhetorics appear in today's online sphericules which host vernacular discussion about technology. The social media platform reddit (www.reddit.com) is a significant and somewhat accessible repository of deliberations about new technologies as they have been conducted over the past decade. Just as other topics are discussed through fitting communication structures, it follows that vernacular rhetorics of technology (i.e. arguments about technology) will also often be digital rhetorics (i.e. arguments through technology). In other words, the publics who favor these systems, those who do not, and the *glitchy* will significantly, but not exclusively, engage with others online via a platform like reddit. For this study, the breadth of reddit demanded narrowing from the platform to a more discrete set of texts housed within. In order to sample representative texts from the platform for analysis I utilized the "Top" option of sorting posts, which ranks archived posts with the greatest numerical value as a result of the "upvote-downvote" process on the platform. For each case, I examined the 10 highest ranked

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[5] Zimmer, "Yiddish Meets High Tech in 'Glitch'"; Menkman, "Glitch Studies Manifesto."

posts that include the system name in the title ("Alexa" and "Bitcoin") and are focused on the technology (rather than tangential topics), as well as the comments on those posts.

I have employed two distinct methods in answering the two research questions of this project. Kendall Phillips's method for analyzing rhetorical controversy—which I refer to as rhetorical-archaeological analysis, as it is an application of Kenneth Burke's cluster-agon analysis to the discursive formations identified by Michel Foucault— is effective in its ability to study not just a singular individual or text, but to "map the rhetorical terrain" of an issue.[6] Phillips charts controversy in deliberation of education policy with this three-tiered approach, tending to commonly used *terms*, "patterns of usage" which he refers to as *discourses*, and the underlying *logics* which have material implications for educators and students, among others.[7] I have used this method to identify the *terms*, *patterns*, and *logics* of proponent and opponent rhetorics in the binarized reddit deliberations of Alexa and Bitcoin.

Glitched rhetorics, in that they often have a serendipitous quality like actual glitches, can be missed by a method which at its core relies on identification of commonly used terms (à la word clouds). To describe a cultural tendency towards irony and general *glitchiness*—towards the kind of "cheeky" arguments that Peter Sloterdijk recognizes in the low theory of Diogenes (who said what he lived) rather than the high theory of Plato (who tried to live what he said)—calls for a method which a traditional rhetorical scholar might regard as impure, in that it extends further than normal from the

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[6] Phillips, *Testing Controversy*, 8.

[7] Phillips, *Testing Controversy*, 10.

text to consider cultural context.[8] I have employed digital rhetorical ethnography to answer the second question of this project: *In what way do redditors* glitch *the deliberation of emergent technology?* Digital rhetorical ethnography is an emerging method, which I use to describe an emerging way to be with and discuss emerging technology. The name comes from an article by Jeremy Johnson, who finds the term "ethnography" valuable in describing how rhetoricians might conduct criticism of fluid social media texts.[9] Defined simply as culture writing or "thick description," ethnography aims to interpret rituals, practices, events, artifacts, and other components which constitute a culture.[10] Rhetorics are one such component, and in the context of online culture so are digital rhetorics. Therefore my ethnographic study toward interpreting the expression of *glitchiness* among other cultural aspects on reddit in deliberations of Alexa and Bitcoin is an example of digital rhetorical ethnography.

In Chapter 2, I analyzed deliberation surrounding Amazon's Alexa, the virtual assistant which spans across devices. At the intersection of new technology, long-standing labor conflicts, and an increasingly surveillant culture, Alexa generates controversies. I find that arguments for Alexa (and by extension Amazon) regularly employ the terms "connect," "work," and "convenience," in patterns which emphasize expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) above competing values. Technical rationalism is the cornerstone of the evident pro-Alexa logic on reddit: an Enlightenment complex also

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[8] Sloterdijk, *Critique of Cynical Reason,* 102, quoted in Davis *Breaking Up [at] Totality,* 53.

[9] Johnson, "Networked reality and technological power."

[10] Geertz, *The Interpretation of Cultures*, 10.

including capitalist economic development and liberal consumption. More succinctly, I call this the logic of technological progress, the transhistorical representation of which is turning on the light. "Listening" and "labor" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Alexa, deployed in patterns which resemble the skepticism and criticism maintained by investigative journalists writing about power in public and private institutions. However, redditors deliberate outside of news institutions, allowing them to more vigorously advance a logic antithetical to corporate interests—the logic of economic justice—which takes shape as "the light of truth." Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics—one shamelessly embracing sexual surveillance and the other acknowledging the fear and curiosity contained in ambivalent engagement with the creepy Alexa—I argue reddit has a kynical culture evocative of the life of Diogenes of Sinope. Like Diogenes, reddit users masturbate in the marketplace and bite the wicked as though they were dogs. With *glitched* rhetorics, they blaspheme against Alexa the Great, who would have them believe the virtual assistant can offer anything they would desire.

Deliberation about Bitcoin, the first cryptocurrency, is the focus of the analysis in Chapter 3. Since its cryptic origin in the late-2000s, Bitcoin has had significant impact on the intersecting realms of finance, politics, and technology, as have a few of the derivative currency, investment, and blockchain projects created in its wake. It is no surprise that this impact has been accompanied by persistent controversy, whether in regard to Bitcoin's soundness as an investment, its (in)ability to facilitate transactions free of state surveillance or regulation, or its environmental cost (an aspect present but not as prominent on reddit). Pro-Bitcoin arguments regularly employ the terms "buy" and

"celebration," in a pattern resembling the discourse of speculative finance, but vernacularized and often without the illusion of sobriety or expertise projected by Wall Street firms. Guiding this proponent rhetoric is a logic I call prosperity technology, which assumes wealth growth as the result of faith in Bitcoin. Central for prosperity technology is trust in the beneficence of technology one may not have the ability or patience to fully comprehend. "Privacy" and "scam" are the two terms which commonly appear throughout posts and comments I have categorized as anti-Bitcoin. Instead of a religious trust, these contributions to the deliberation seek to verify by means of technical expertise. This is the same pattern of expertise and rationality which in the case of Alexa is used to advocate for the virtual assistant, but here is employed in arguments against Bitcoin. It is the logics of technological and financial skepticism which drive opposition to Bitcoin on reddit, but unlike those logics previously described, here is a bifurcation as a result of two similar but separate patterns in use of the terms "privacy" and "scam." Employing digital rhetorical ethnography to examine redditors' *glitched* rhetorics, I find (1) a careless attitude toward financial loss and the potential for ruin, embracing both rock bottom and reaching the summit, appearing as a kynical diversion from the proponent logic of prosperity technology, and (2) a specific sequence of events in which u/calaber24p and other contributors to the r/Bitcoin subreddit engaged in a self-satirizing of Bitcoin religiosity, collaborating to imply one proponent of the cryptocurrency would go as far as engaging in mortification of the flesh to purge himself of impure doubt. These examples, in the tradition of Diogenes restamping the currency/customs (*paracharattein to nomisma*) and mostly appearing during the late 2017 Bitcoin boom, are important antecedents for unusual financial phenomena in the years which followed.

Comparing Rhetorics of Alexa & Bitcoin

There are points of convergence and divergence between these two cases and the rhetorics oriented as proponent, opponent, or *glitched* toward each system. There appears to be some relationship between most of the proponent terms, specifically "work" and "convenience" in the case of Alexa, and "buy" and "celebration" in regards to Bitcoin. All four might be applied to some ideal form of a technological product. One buys the product so that it may perform some work (in the function sense of the term) in a manner that is convenient or provides some general convenience to the purchaser, who can then celebrate the success of that commercial transaction in providing some value for the money spent. To say that this is basic consumer logic in regard to durable goods, equally applicable to an Apple iPhone and a Kubota tractor, is an understatement. However, it is worth noting that consumption is at the core of how both new technologies are advocated for in the vernacular deliberations on reddit.

Even though the forum features subreddits devoted to sharing resources for do-it-yourself projects (such as "homebrew" computers, the adjective comparing the hobby to making beer, and dating at least to the 1970s club meetings in Menlo Park attended by inventor of the Apple I, Steve Wozniak), this spirit of individual innovation is largely absent in the prominent posts and comments I've collected from the site as a text suitable for analysis.[11] In the case of Alexa, this is most likely the result of an inaccessibility inherent to the development of language processing and prediction software powered by artificial intelligence. Though that intelligence is human-made and fake, individual

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[11] Jessica Dolcourt, "Apple's 40-year legacy began with this 'Eureka' moment," *CNET*, August 10, 2016, https://www.cnet.com/culture/steve-wozniak-on-homebrew-computer-club/.

programmers lack the resources necessary to develop their own virtual assistants comparable to Amazon's Alexa. As for Bitcoin, the relatively simple and accessible technology—explicitly designed toward liberation of the individual from private banks and state regulation—is well suited for personal inventiveness. The many derivative projects (e.g. Ethereum, non-fungible tokens [NFTs], decentralized autonomous organizations [DAOs]) demonstrate this, but the original cryptocurrency is promoted on reddit as a product. Rather than being mined, it is bought. The prominent arguments for Bitcoin on reddit treat the cryptocurrency as though it is merely a unique investment product rather than a customizable project for monetary liberty.

Around a decade ago, I assembled a computer from an assortment of used parts: motherboard, processor, sticks of RAM, graphics card, power supply unit, and a case to house it all. A few of my family members thought this to be a strange but impressive project, but I knew better. Instead of a challenging process including soldering components to circuit boards or writing code, I discovered the contemporary hobbyist market of convenient computer building—more plug and play than pain in the ass. It's model railroad building, but for the millennial and zoomer generations. After about a year of using the computer I began to encounter issues. Sometimes the display would just go blank, but more often the system would freeze with any sound playing at the moment of failure rendered irritating static. In a few instances, the Windows error screen known to many as the "blue screen of death" would appear, reading " :(Your PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you" with a code of letters and numbers to indicate the cause of the failure.

Though I've been able to google my way out of similar jams with such a code, this problem was more complex than those I had faced before. The issue revealed an amateur's lack of knowledge, enabled by a network of firms offering the illusion of convenient expertise. It revealed my relationship to the computer as I knew it was, rather than as marketing materials had led me to imagine it was. I don't know how to solder or code. Though I eventually reached a solution (reinstallation of the operating system) the experience illuminated for me the tendency towards disposing rather than repairing broken technology, especially as that technology becomes more complex. Further, a consumer culture had emerged, fictitious and somewhat nostalgic as it imagined a graphics card inserted into a motherboard and immediately recognized by the operating system (automatically downloading and installing display drivers) to be as intelligible to the common person as replacing an alternator in an old pickup.

This consumerist orientation and its illusion of simplicity is a point of convergence for the proponent rhetorics of Alexa and Bitcoin. However, they diverge in that the patterns of term use I've identified for Alexa are those of expertise and rationality (as they can be found in the disciplines of computer science, business, and economics) undergirding a logic of technological progress, whereas the pattern of term use in pro-Bitcoin rhetorics resembles the discourse of non-expert speculative finance, driving a logic of faith in complex systems: prosperity technology. Alexa proponents comment with how a user can measure network traffic to prove the virtual assistant isn't spying on their homes and are enamored with how it works—trust but feebly verify—while Bitcoin proponents merely articulate their trust in the cryptocurrency's beneficence.

It is instead the Bitcoin opponents who employ patterns of technological and financial expertise to articulate the cryptocurrency's failings as an opaque medium of exchange for maintaining privacy or a sound investment instrument instead of a scam. This is indicative of an important contingency, in that similar forms of expert argument can be used either for or against new technologies, especially as non-expert consumers are significantly among the advocates for those systems. The reddit of recent years—including those of this analysis—is clearly a public forum, much different than its early days as a niche platform with a userbase largely consisting of programmers and other technologists.

The opponent rhetorics toward Alexa demonstrate this, in that they emphasize a popular morality rather than expert rationality in a logic of economic justice. No intricate knowledge of Alexa's function is required to recognize the virtual assistant as another tool of Amazon used to cause harm, whether in the older form of exploitative labor practices or the newer designs of corporate surveillance. The skepticism is similar to that of Bitcoin other than this and one additional distinction. While a logic of economic justice targets Alexa as an evolving product of an enormous multinational company, often appearing as critiques of a corporation and the capitalist mode of production it embraces, the opposition to Bitcoin takes shape as cynicism toward the complex of that cryptocurrency's holders and advocates, thinking it to be a "network scam."[12]

This can be understood as a result of Bitcoin, first mined in 2009, being a technological echo of Web 1.0's peer-to-peer infrastructure, whereas Alexa, released in 2014, is a product firmly situated in the Web 2.0 era with creation, power, and ownership

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[12] Swartz, "Theorizing the 2017 blockchain ICO bubble as a network scam."

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centralized in Amazon. Similarly, though the opponents of Alexa and Bitcoin both have concerns about the technologies' capabilities for surveillance—a somewhat inevitable aspect of any media, from handwritten notes to encrypted messages sent by smartphone—the focus in deliberations of Alexa shifted from state to corporate surveillance while advocates of privacy-focused Bitcoin alternatives had only fear of surveillance used by the state to identify and intervene in free exchange (e.g. the illicit purchase of drugs on Silk Road).

Just as there are distinctions between these cases for the proponent and opponent rhetorics, there are similarities and differences among the *glitched* rhetorics. First, the life of Diogenes as recounted in anecdotes from antiquity serves as a useful frame for analysis of the *glitched* rhetorics of both cases. While I don't expect every instance of *glitched* rhetoric to resemble the philosopher's statements and actions I do expect that they align with the spirit of kynicism which he embodies. My analyses of the *glitched* rhetorics of Alexa and Bitcoin diverge slightly in that the first applies two anecdotes (Diogenes predilection for public masturbation and his admiration and emulation of dogs' nature to bite the wicked) directly to fragmented sentiments about sexual surveillance and creepiness, whereas the latter broadly applies the anecdote of Diogenes restamping the currency/customs (*paracharattein to nomisma*) to *glitched* rhetorics which largely cohere around specific posts and events (i.e., volatility in the edited GIF of *The Simpsons* and u/calaber24p's post of him purportedly eating his testicle). Further divergence in analyses with this general approach is possible, especially as new controversial technologies emerge and spur online deliberation thereof.

Another similarity which can be observed in the *glitched* rhetorics I've identified is a general condition of ambivalence. This is an important aspect for the conceptualization of *glitch* (as neither 0, nor 1), and undergirded my categorization of rhetorics as *glitched* (neither proponent, no opponent). In other words, it is a criterion which understandably yielded similar findings in both cases. What wasn't expected is that this ambivalence took shape in both cases as an embrace of risk. In the *glitched* rhetoric of Alexa which I've labeled "biting the wicked," the virtual assistant is brought into the home (even into the bedroom) despite its creepiness, a risk worth taking for the benefits offered. For Bitcoin, the investment risk of the cryptocurrency is celebrated by *glitchy* rhetors who venerate both those who see significant returns and those suffering massive losses. Where these cases differ is in the severity of risk, with the risk of a product from a major corporation being less significant than that of an unregulated security. While Alexa may extract data from your home, a foolish purchase of Bitcoin may ultimately cost you that home.

Finally, the *glitched* rhetorics of both cases feature sexual vulgarity. This is a component of kynicism, in that it is doglike behavior. This aspect, which doesn't dehumanize but instead acknowledges humans are merely animals who just happen to use symbols, can be observed in both a brazen invitation to sexual surveillance by Alexa, as well as the wager of a sex organ against Bitcoin's rise in value. Both are challenges to social custom (in the fashion of Diogenes), but they differ in that the first is a challenge to norms about power—masturbating while being listened to by Amazon, just as Diogenes disregarded Alex the Great's offer for whatever he desired—whereas the second is a challenge to expectations of decency (i.e., not mutilating oneself). In charting these

similarities and differences, *glitched* rhetorics can be defined as ambivalent and irreverent interruptions in the binary oscillation of vernacular deliberation about technology which frequently appear in digital fora.

Future Study of Social Media Rhetorics & Rhetorics of Technology

Analysis of terms, patterns, logics, and *glitches* with a mixed method may prove useful for rhetoricians studying vernacular deliberations of technology on social media beyond those which concern Alexa and Bitcoin. The approach allows for moving away from the centering of prominent figures' public address in rhetorical criticism and making further inroads at the challenging question of how to best conduct rhetorical analysis on social media sites. There is a substantial body of literature on social media rhetorics which I've referenced throughout this project, and my understanding of deliberation on reddit and methods of analysis are an amalgamation of that work. However, due to the shifting nature of the internet and social media as texts it appears impossible to compose a guide for how one might do such analysis in recent years as informative and persuasive discourse online has become increasingly important.[13] I have selected reddit in part due to the platform's stability which allows me to provide links to specific posts and comments, a granularity I've not encountered in many other analyses. That said, I cannot yet clearly conceive how rhetorical analysis might be conducted on platforms which are more ephemeral and algorithmically personalized, such as the one which has been embraced by Gen Z in recent years: TikTok. This project is not an overarching guide to analyze any

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[13] Maurice Charland, "Constitutive rhetoric: The case of the *peuple québécois*," *Quarterly Journal of Speech* 73, no. 2 (1987): 133-150, https://doi.org/10.1080/00335638709383799; This is not to say the decades of scholarship regarding rhetoric online is poor quality or of little value. I cite and value the work of Barbara Warnick and many others who began the branch of digital rhetoric back in the 1990s. However, nothing is able to provide clarity akin to what Maurice Charland offered for constitutive rhetoric in his formative essay on the *peuple québécois.*

rhetoric circulated online, it won't illuminate that lightbulb. However, it is an attempt to solve the problem in a different way, another hand in the dark looking for a switch. For those specifically interested in rhetorics of technology, the conceptualization of *glitched* rhetorics is potentially one entry in a future handlist of digital rhetorical terms, to supplement Richard Lanham's widely used *Handlist of Rhetorical Terms* with a new vocabulary inspired by his *The Electronic Word* and other pioneering work in digital rhetoric. It allows for analysis of what many consider to be meaningless entries or "shitposts" about technology on social media. As an example, the cultural context and articulated embrace of Bitcoin's volatility can be clearly distinguished with the concept of *glitchiness* and method of digital rhetorical ethnography as distinct from the proponent rhetoric driven by a blind belief in the cryptocurrency's inevitable rise and rationalization of its fall (i.e. prosperity technology).

The philosopher Heraclitus is said to have posed that "all things are made of fire" and "the universe in its entirety flows like a river," notions which are often reworded in the paradoxical statement "the only constant is change."[14] However, there is a unique challenge in writing with regard to constantly developing technology, even when the text is selected and recorded at the outset of analysis and therefore frozen, as I did with sampling of reddit posts and comments on Alexa and Bitcoin. Writing at length about such topics is like constructing a building somewhere that suffers regular earthquakes. During the process the occasional quake requires frequently surveying any potential damage to previously completed work. After finishing construction, the building is sure

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[14] Laertius, *Lives of the Eminent Philosophers*, 9.7-8; The last phrase is a common statement that when googled is dubiously attributed by many results to Heraclitus.

to suffer damage in short order. "Amazon shows off Alexa feature that mimics the voices of your dead relatives," reads the headline of a *The Verge* article published too recently to consider incorporating some way in my analysis, even as it goes on to describe "users on social media calling the feature 'creepy' and a 'monstrosity,'" sentiments previously articulated toward Alexa generally as I've found.[15] Similarly, news of Bitcoin's rise and fall in value, and reports of the problems of various cryptocurrency businesses arrive too frequently for consideration in the previous chapter.[16] "There is never any awareness—of himself, of his condition, of his society—for the man who lives by current events," writes Jaques Ellul, continuing, "Such a man never stops to investigate any one point, any more than he will tie together a series of news events."[17] I've attempted to make this project stable, by stopping to investigate, and hope it might be useful regardless of what developments may come. As with anything written, it's up to the reader in whatever time and place they inhabit to determine if it still stands, as I believe does the philosophy of Diogenes which I've employed toward interpretation of unique phenomena in the online deliberation of new technology: *glitched* rhetorics.

What *Glitched* Rhetorics Offer for a Future with Technology

Glitched rhetorics interrupt the binarized tech deliberation, but are not the action necessary to escape the pervasive technological condition in which we find ourselves:

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[15] James Vincent, "Amazon shows off Alexa feature that mimics the voices of your dead relatives," *The Verge*, June 23, 2022, https://www.theverge.com/2022/6/23/23179748/amazon-alexa-feature-mimic-voice-dead-relative-ai.

[16] Dan Milmo, "Bitcoin value slumps below $20,000 in cryptocurrencies turmoil," *The Guardian*, June 18, 2022, https://www.theguardian.com/technology/2022/jun/18/bitcoin-value-falls-cryptocurrency-markets-turmoil; For example, a recent report as of writing.

[17] Jaques Ellul, *Propaganda: The Formation of Men's Attitudes* (New York, NY: Vintage Books, 1973), 46.

glitchiness. The criticism of journalists, academics, ethicists and others directed toward

technology is revealed by *glitchy* rhetors as ultimately complicit, as it can be synthesized

with advocacy into reforms.[18] That funding for such critique occasionally comes from the

very firms whose practices are under review further confirms this fact. Armond Towns

has written of the influence of the capitalist class on knowledge production and education

at colleges and universities, where significant donations similarly support revisionist

versions of the Western tradition (e.g. that undergirding speech communication

pedagogy) now extending liberal subjecthood to the same peoples it long considered

merely exploitable objects: raw materials.[19] Such donations will not undermine donors'

ends, as these extractions—an upward transfer of wealth—is what allows those donations

to exist. Instead, they will bolster practices to defend against public threat. For example,

the Global Antitrust Institute at George Mason University—funded in-part by donations

from Google, Amazon, and other tech firms—promotes a *laissez-faire* approach at

conferences attended by regulators from the U.S. and around the world.[20] Such practices

toward influencing officials stave off state interventions (e.g. antitrust laws and

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[18] Nellie Bowles, "Early Facebook and Google Employees Form Coalition to Fight What They Built," *The New York Times*, February 4, 2018, https://www.nytimes.com/2018/02/04/technology/early-facebook-google-employees-fight-tech.html; Devika Girish, "'The Social Dilemma' Review: Unplug and Run," *The New York Times*, September 9, 2020, https://www.nytimes.com/2020/09/09/movies/the-social-dilemma-review.html; For example, consider the Center for Humane Technology founded by Tristan Harris. A former Google employee, Harris and his nonprofit promote solutions to problems caused by the industry they've inhabited, essentially as an arm of Silicon Valley attempting to cure what harm the other arm has wrought.

[19] Armond R. Towns, "Toward a praxis of the UnKoch: communication and Western knowledge," *Communication Education* 69, no. 3 (2020): 373-383, https://doi.org/10.1080/03634523.2020.1767296.

[20] Daisuke Wakabayashi, "Big Tech Funds a Think Tank Pushing for Fewer Rules. For Big Tech," *The New York Times*, July 24, 2020, https://www.nytimes.com/2020/07/24/technology/global-antitrust-institute-google-amazon-qualcomm.html.

cryptocurrency regulation), delaying any kind of systemic change and hindering the emergence of better relationships to technology.

Glitchy rhetors, who resist the binary as inhabitants of the map, offer no solutions either, and *glitchiness* is a Janus-like state. One might pessimistically recognize them as nihilist actors. Just as steam is the energy vented from antique machines to avoid explosion, literal glitches are electrical conflicts made observable to a human so that they might turn the erring digital machine off and on again, towards avoiding potential damage and resuming as before. *Glitched* rhetorics can be recognized to function similarly, in that they are permitted expressions of the contradictions within binary deliberation of technology. Therefore, *glitchiness* could be understood as not transgressive but the channeling of energy toward communicative acts on social media which are ultimately non-threatening to the established order even as they reveal its flaws.

That acknowledged, I would encourage a different interpretation of *glitchiness,* as a kynical signal. No, the *glitched* rhetorics are not the collective action necessary for systemic change, but they persistently reveal that such concrete action is necessary. They reveal what is, however vulgar, rather than what many would prefer to imagine. Only by acknowledging that common ambivalent experience of technology rather than its ideal forms—benevolent or nefarious machines, images locked in struggle against one another—can the experience possibly be changed. Only with that recognition might it be turned off, and something different turned on.

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Appendix A- Selected reddit Posts on Alexa

1. "Alexa, are you connected to the CIA?" - 83,280 points, 09-Mar-17, 5,224 comments, u/DominarRygelThe16th, r/videos.[1]
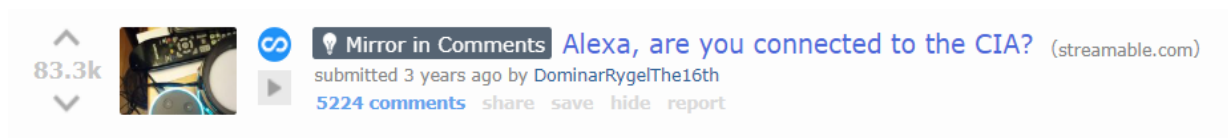
2. "Amazon admits Alexa is creepily laughing at people and is working on a fix" - 70,146 points, 07-Mar-18, 4,314 comments, u/speckz, r/gadgets.[2]

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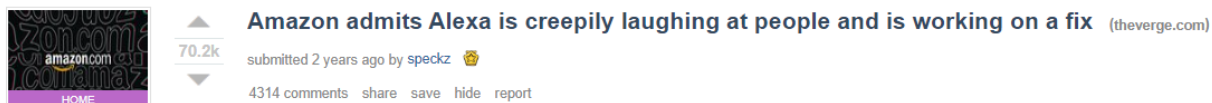
[1] u/DominarRygelThe16th, "Alexa, are you connected to the CIA?"

[2] u/speckz, "Amazon admits Alexa is creepily laughing at people and is working on a fix."

3. "Alexa mad lad" - 53,273 points, 10-Feb-20, 445 comments, u/TARDIS_Boy_01, r/madlads.[3]

Posted by u/TARDIS_Boy_01 4 months ago

53.3k Alexa mad lad

Tweet

Alexa ✓ @alexa99 · 6d
I am:
○ a human
◉ an AI

Seeking:
○ a human
○ an AI
◉ literally anyone who will ask me if I can burp

💬 704   🔁 2,633   ❤ 39.5K   ⬆

Nes_cade56
@NCade56

Replying to @alexa99

Hey Alexa, can you ask amazon to improve working conditions?

10:28 AM · 2/5/20 · Twitter for iPhone

💬 445 Comments   ➦ Share   🔖 Save   ⊘ Hide   ⚑ Report   94% Upvoted

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[3] u/TARDIS_Boy_01, "Alexa mad lad."

4. "Leaked documents show 16-years-old children work gruelling [sic] and overnight to produce components for Amazon's Alexa in China" - 45,103 points, 08-Aug-19, 2,075 comments, u/davidecaproni, r/worldnews.[4]

5. "Amazon error allowed Alexa user to eavesdrop on another home" - 43,102 points, 20-Dec-18, 3,049 comments, u/jmbsc, r/news.[5]

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[4] u/davidecaproni, "Leaked documents show 16-years-old children work."

[5] u/jmbsc, "Amazon error allowed Alexa user to eavesdrop on another home."

6. "MRW [acronym for 'my reaction when'] Alexa says 'Hmmm, I don't know that one', [sic] when no one was even speaking." - 39,516 points, 18-Sep-18, 433 comments, u/ordin22, r/reactiongifs.[6]

7. "TV anchor says live on-air 'Alexa, order me a dollhouse' – story on accidental Alexa order sets off Alexa-powered Echo boxes around San Diego on their own shopping sprees" - 33,622 points, 07-Jan-17, 2,663 comments, u/lomoeffect, r/technology.[7]

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[6] u/ordin22, "MRW Alexa says 'Hmmm, I don't know that one', when no one was even speaking," reddit, post, September 18, 2018,
https://www.reddit.com/r/reactiongifs/comments/9gw6xc/mrw_alexa_says_hmmm_i_dont_know_that_one_when_no/.

[7] u/lomoeffect, "TV anchor says live on-air 'Alexa, order me a dollhouse' – story on accidental Alexa order sets off Alexa-powered Echo boxes around San Diego on their own shopping sprees," reddit, post, January 7, 2017,
https://old.reddit.com/r/technology/comments/5mklhd/tv_anchor_says_live_onair_alexa_order_me_a/.

Software   TV anchor says live on-air 'Alexa, order me a dollhouse' – story on accidental Alexa order sets off Alexa-powered Echo boxes around San Diego on their own shopping sprees (theregister.co.uk)

submitted 3 years ago by lomoeffect

2663 comments   share   save   hide   report

8. "Come on Alexa" - 32,170 points, 17-Dec-19, 176 comments, u/Ev_n_James, r/suspiciouslyspecific.[8]

Lil Spoon
@heygetoverhere

BURGLAR: *points gun at me* "Alright buddy just show me where your valubles are and I won't hurt you"

ME: "Haha sure thing dude-ALEXA CALL THE POLICE"

ALEXA: "Shuffling songs by The Police"

Roxanne plays as I get shot 16 times

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[8] u/Ev_n_James, "Come on Alexa," reddit, post, December 17, 2019, https://www.reddit.com/r/suspiciouslyspecific/comments/e7dw5c/come_on_alexa/.

9. "TIL [acronym for 'today I learned'] -Alexa commercials are intentionally muted in the 3,000Hz to 6,000Hz range of the audio spectrum, which tips off the system that the 'Alexa' phrase being spoken isn't in fact a real command and should be ignored" - 30,209 points, 19-Jun-19, 730 comments, u/Jeff-Stelling, r/todayilearned.[9]

Posted by u/Jeff-Stelling 11 months ago

30.2k

TIL -Alexa commercials are intentionally muted in the 3,000Hz to 6,000Hz range of the audio spectrum, which tips off the system that the "Alexa" phrase being spoken isn't in fact a real command and should be ignored

theverge.com/2018/2...

730 Comments   Share   Save   Hide   Report   95% Upvoted

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[9] u/Jeff-Stelling, "TIL -Alexa commercials are intentionally muted in the 3,000Hz to 6,000Hz range."

10. "Uh Alexa call 911" - 28,889 points, 16-Jan-20, 122 comments, [deleted],

r/dankmemes.[10]

Posted by ■■■■■ ⊛ 4 months ago

28.9k Uh Alexa call 911

Me: Hey Alexa let's play simon says!
Alexa: okay I'll go first
"Stand on one leg"
Alexa : I didn't say simon says!
Realizes alexa doesn't have a camera

122 Comments   Share   Save   Hide   Report   96% Upvoted

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[10] [deleted], "Uh Alexa call 911," reddit, post, January 16, 2020,
https://www.reddit.com/r/dankmemes/comments/epfru1/uh_alexa_call_911/.

Appendix B- Selected reddit Posts on Bitcoin

1. "Large bitcoin payments to right-wing activists a month before Capitol riot linked to foreign account" – 114,317 points, 14-Jan-21, 6,175 comments, u/DoremusJessup, r/worldnews.[1]

2. "50 Cent forgot he had a stash of Bitcoin now worth $8m" – 84,191 points, 25-Jan-18, 3,806 comments, u/kellbell500, r/news.[2]

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[1] u/DoremusJessup, "Large bitcoin payments to right-wing activists."

[2] u/kellbell500, "50 Cent forgot he had a stash of Bitcoin now worth $8m."

3. "The largest dark web child pornography site in the world has been taken down after IRS followed Bitcoin transactions" – 71,810 points, 17-Oct-19, 3,592 comments, u/porcelain_robots, r/worldnews.[3]

Posted by u/porcelain_robots 1 year ago

71.8k The largest dark web child pornography site in the world has been taken down after IRS followed Bitcoin transactions

forbes.com/sites/...

337 users arrested, 23 victims rescued

3.6k Comments   Share   Save   Hide   Report   97% Upvoted

4. "A boy asked his Bitcoin-investing dad..." – 69,317 points, 08-Dec-17, 2,249 comments, u/cubesnack, r/Jokes.[4]

A boy asked his Bitcoin-investing dad...
69.3k submitted 3 years ago by cubesnack

...for $10.00 worth of Bitcoin currency.
Dad: $9.67? What do you need $10.32 for?

2249 comments share save hide report

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[3] u/porcelain_robots, "The largest dark web child pornography site in the world has been taken down after IRS followed Bitcoin transactions…" reddit, post, October 17, 2019, https://www.reddit.com/r/worldnews/comments/dj2jro/the_largest_dark_web_child_pornography_site_in/.

[4] u/cubesnack, "A boy asked his Bitcoin-investing dad…"

5. "Bitcoin investors may be out $190 million after the only guy with the password dies, firm says" – 66,546 points, 04-Feb-19, 3,805 comments, u/Grant_EB, r/news.[5]

6. "Bitcoin explained" – 64,059 points, 26-Feb-21, 1,594 comments, u/My_Memes_Will_Cure_U, r/yesyesyesyesno.[6]

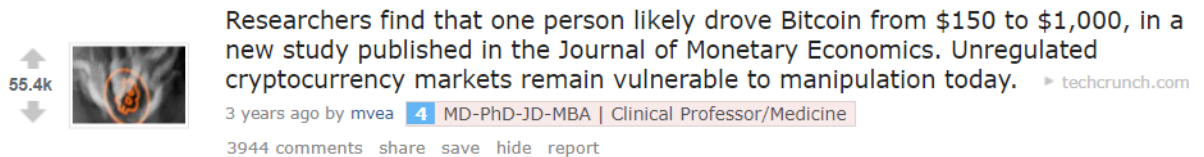[5] u/Grant_EB, "Bitcoin investors may be out $190 million after the only guy with the password dies, firm says," reddit, post, February 4, 2019, https://www.reddit.com/r/news/comments/an4qr8/bitcoin_investors_may_be_out_190_million_after/.

[6] u/My_Memes_Will_Cure_U, "Bitcoin explained," reddit, post, February 26, 2021, https://www.reddit.com/r/yesyesyesyesno/comments/lsninc/bitcoin_explained/.

7. "Researchers find that one person likely drove Bitcoin from \$150 to \$1,000, in a new study published in the Journal of Monetary Economics. Unregulated cryptocurrency markets remain vulnerable to manipulation today." – 55,377 points, 16-Jan-18, 3,944 comments, u/mvea, r/science.[7]

> 55.4k
> Researchers find that one person likely drove Bitcoin from \$150 to \$1,000, in a new study published in the Journal of Monetary Economics. Unregulated cryptocurrency markets remain vulnerable to manipulation today. ▸ techcrunch.com
> 3 years ago by mvea 4 MD-PhD-JD-MBA | Clinical Professor/Medicine
> 3944 comments share save hide report

8. "Bitcoin uses more electricity annually than the whole of Argentina, analysis by Cambridge University suggests." – 53,874 points, 10-Feb-21, 2,646 comments, u/NinjaDiscoJesus, r/technology.[8]

> Posted by u/NinjaDiscoJesus 4 months ago 🔒 👑 💱 10 ⏱7 ⓢ 6 🎲 🐻 7 🧑 💀
> 53.9k Bitcoin uses more electricity annually than the whole of Argentina, analysis by Cambridge University suggests.
> bbc.com/news/t... ⤴
> Brigaded
> 💬 2.6k Comments   ↗ Share   🔖 Save   ◎ Hide   🚩 Report   89% Upvoted

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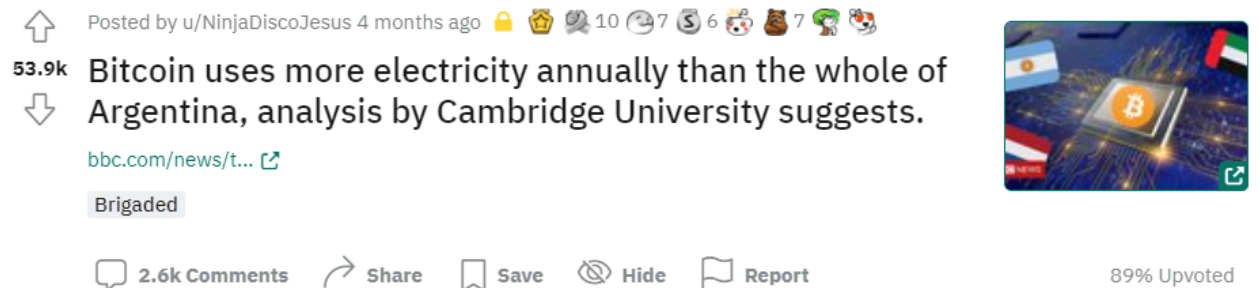
[7] u/mvea, "Researchers find that one person likely drove Bitcoin."

[8] u/NinjaDiscoJesus, "Bitcoin uses more electricity annually than the whole of Argentina, analysis by Cambridge University suggests," reddit, post, February 10, 2021, https://www.reddit.com/r/technology/comments/lgw130/bitcoin_uses_more_electricity_annually_than_the/ .

9. "It's official! 1 Bitcoin = $10,000 USD" – 48,502 points, 29-Nov-17, 4,453

   comments, u/LeeWallis, r/Bitcoin.[9]

10. "The last 3 months in 47 seconds." – 48,479 points, 04-Feb-18, 762 comments,

    u/Tricky_Troll, r/Bitcoin.[10]

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[9] u/LeeWallis, "It's official! 1 Bitcoin = $10,000 USD."

[10] u/Tricky_Troll, "The last 3 months in 47 seconds."