Online conspiracy theories, digital platforms and secondary orality: toward a sociology of online monsters

Venturini, Tommaso

How to cite

VENTURINI, Tommaso. Online conspiracy theories, digital platforms and secondary orality: toward a sociology of online monsters. In: Theory, culture & society, 2022, vol. 39, n° 5, p. 61–80. doi: 10.1177/02632764211070962

This publication URL: https://archive-ouverte.unige.ch/unige:166414
Publication DOI: 10.1177/02632764211070962

Online Conspiracy Theories, Digital Platforms and Secondary Orality. Toward a Sociology of Online Monsters (PREPRINT VERSION)

How to cite
Venturini Tommaso, 2021. Online Conspiracy Theories, Digital Platforms and Secondary Orality. Toward a Sociology of Online Monsters. *Theory, Culture & Society*, forthcoming.

Tommaso Venturini
CNRS Centre Internet et Société, UPR 2000
59-61 rue Pouchet, 75849 Paris, France

Abstract

Reviving the somewhat forgotten notion of "secondary orality", this paper conceptualizes online conspiracism as a creative, if monstrous, response to the attention economy of social media. Combining classic literature on oral cultures and current research on online subcultures, this paper takes conspiratorial folklore seriously and develops a programme of research into its features and into its surprising adaptation to the attention regime of digital media.

> The 'message' of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs. The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human functions (Marshall McLuhan, *Understanding Media*, 1964, p. 8)

> Speed-up of information… creates insatiable village tastes for gossip, rumor, and personal malice (Marshall McLuhan, *Understanding Media*, 1964, p. 306).

State of the art: The deaf spot of online conspiracism

In the last few years, a riptide of conspiracy narratives has flowed from the fringes of the Internet to the center of the media system. While their threat has been swiftly acknowledged, none of the attempted remedies (from manual moderation to algorithmic suppression; from debunking to deriding) has proven effective. Part of this failure comes from our difficulty to take these conspiratorial streams seriously, and consider them as a credible cultural phenomenon, which is not only meaningful but also perfectly attuned to the attention regime of online media. As one of the reviewers of this paper aptly puts it, conspiracy narratives should be considered not only "as a problem – denying them, acting 'bookish' or even normatively – but also as a solution. But to what problem?". As this paper will argue, *online* conspirationism responds to a different problem than the traditional one

and thrives on incentives that are not only social or psychological, but also specifically related to the acceleration of media attention economy.

To explain how, we should start by questioning our own intellectual posture. Faced with stories about US Democrats trafficking children at pizza parlors, cabals of Satanic cannibals running the world, Bill Gates hiding microchips into vaccines, or the flatness of Earth, it is hard to shake off a feeling of incredulity. The flimsiness of their arguments, the incongruity of their reasoning, the amateurism of their presentation, all add to our puzzlement. From the columns of newspapers and scientific journals, commenters struggle to streamline the erratic ideas assembled by these narratives and to justify their success.

To deal with such incomprehension, research has taken two directions. Some researchers have renounced to even question the sense of online misinformation and focused on its computational detection (Shu *et al.*, 2017) and its topological spreading (Almaliki, 2019). Others have turned to the classic interpretations of conspiracism, reviving arguments about how pseudo-theories help cope with social complexity (Douglas *et al.*, 2017 & 2019; Marcus *ed.*, 1999) and provide scapegoats to groups experiencing an erosion of their privileges – white middle-age upper and middle-class men in particular (Glick, 2005; Dafaure, 2020).

While insightful, both these approaches sidestep the pith of online conspiracism. One is a description without explanation which can be applied to all fads circulating online; the other is an explanation without description, germane to all forms of conspiratorial thinking, broadly define as the mistaken view “that, whatever happens in society ... is the result of direct design by some powerful individuals and groups (Popper, 1945, p. 352). While excellent literature exists on conspiracy theories as a general social problem (cf., among others, Knight, 2000; Basham, 2006; Birchall, 2006; M. Fenster, 2008), little research has yet focused on the features that single out *online* conspiracism and tune into its particular form of storytelling. The very existence of this blind spot or rather of this deaf spot (since, as argued by Elinor Carmi, 2020, this is a problem of hearing rather than seeing) reveals something about its object. If online conspiracism seems hollow, it is because its core is far removed from the kind of analytic thinking that we use to question it.

This mismatch deserves questioning for it points at a more general misunderstanding of Internet vernaculars (Howard, 2008). At its highest with conspiracy narratives, this incomprehension concerns many other phenomena who bemuse and worry media research – from the alt-right to the manosphere, from LOLcats, to Internet memes. Despite their huge popularity, these cultural expressions are still written off as youthful stupidities or extreme deviances, similarly to the way in which subcultures “are alternately dismissed, denounced and canonized; treated at different times as threats to public order and as harmless buffoons” (Hebdige, 1979, p.2). Yet if, following Hebdige's lesson, subcultures should be taken seriously and understood by their opposition to mainstream hegemony, what is the nature of such an opposition in the case of online fringe cultures?

If scholars find it difficult to make sense of conspiracy narratives in particular and of online subcultures in general, I will argue, it is not because these cultural expressions are senseless, but because they appeal to a different system of sensemaking. Academic research and online conspiracism sit on opposite sides of a deep-seated cultural rift: the oral/literary divide. Our perplexity over online conspiracism thus parallels the contempt with which men of letters have long brushed off oral cultures as primitive and simple-minded (and

conspiracists' spite of established authorities remind the mistrust of oral cultures towards literate technocrats, cf. Munn, 2019).

Once acknowledged, our unease in front of online conspiracism becomes a stepping-stone to understand it as a form of digital folklore, though a degenerated one. Not rehabilitate it, to be sure, but to fathom its success and counter it more effectively. To do so, I will summon the compelling yet somewhat forgotten notion of *secondary orality*.

Hypothesis: Online vernacular cultures as a form of secondary orality

The notion of *secondary orality* was first introduced by Walter Ong in a book laying out the many ways in which preliterate cultures are different from (and misunderstood by) written societies. Walter Ong notices that "with telephone, radio, television and various kinds of sound tape, electronic technology has brought us into the striking age of 'secondary orality'" (1982, p. 133). Unlike primary orality, which precedes the introduction of alphabetic writing, secondary orality is a post-literate orality produced by the advent of electronic technologies and by the way in which these technologies reverse some of the cultural dynamics introduced by writing and printing.

The notion of secondary orality expands on the idea of *global village* by Marshall McLuhan (Ong's PhD supervisor) and shifts its focus from the spatial to the temporal aspects of communication. While McLuhan is interested in how electronic media create a village-like proximity enabling ever more distant connections, Ong contends that the affinity between pre- and post-literate cultures is to be found in their temporal rhythms. According to Ong, the communication of electronic media is defined by the same quality that constitutes the essence of oral communication: its evanescence.

> Sound exists only when it is going out of existence. It is not simply perishable but essentially evanescent, and it is sensed as evanescent. When I pronounce the word 'permanence', by the time I get to the '-nence', the 'perma-' is gone, and has to be gone." (p. 31, 32).

This evanescence helps explain our difficulty to appreciate oral cultures, both primary and secondary. If the narratives of oral groups appear inconsistent to us, it is because their idea of consistency is different from ours. Because we live in a world where information and ideas are preserved as material inscriptions, our definition of consistency is based on the agreement with existing records. This agreement, however, is a nonproblem for oral cultures, whose main concern is rather to assure the durability of ideas in a world where all communication is evanescent. Because nothing survives in an oral culture if it is not remembered and repeated, successful oral narratives need to be, above all, *memorable and repeatable*. This need, according to cultural anthropologists, explains many features of oral cultures:

> Formalised patterns of speech, recital under ritual conditions, the use of drums and other musical instruments, the employment of professional remembrancers – all such factors may shield at least part of the content of memory from the transmuting influence of the immediate pressures of the present (Goody & Watt, 1963, p.308).

Some of the features above resonate strongly with the experience of online communication. Hashtags, image templates, video challenges provide popular formalized patterns of speech in digital media; recitals under ritual conditions can be found in podcasts and video-streams;

and professional remembrancers are employed in digital marketing in the form of paid commentators and social media influencers.

Nowhere, however, the oral-like quality of digital communication is more manifest than in conspiratorial narratives, which exhibit striking similarity with preliterate folklore both in style and in content. Using natural language processing techniques, researchers have shown that conspiracism and online misinformation are associated with a distinctively oral tone. Junk news, as a genre, is characterized by a style underusing typographical elements (e.g., quotes and punctuation) as well as technical and analytical words, while overusing repetition, lexical redundancy, all-caps (i.e., shouting in the Web lingo) and proper names (Horne & Adali, 2017).

At the content level, conspiratorial narratives are characterized by a stunning capacity to absorb inconsistencies that reminds the *homeostatic organization* of preliterate societies. The lack of cogency that perplexes so many scholarly commentators is not a shortcoming for digital folklore, but an essential oral-like quality that facilitates reproduction in an evanescent environment. Citing Goody and Watt's seminal paper on orality and literacy:

> In non-literate society..., the cultural tradition functions as a series of interlocking face-to-face conversations in which the very condition of transmission operate to favor consistency between past and present, and to make criticism – the articulation of inconsistency – less likely to occur; and if it does, the inconsistency makes a less permanent impact, and is easily adjusted or forgotten (Goody & Watt, 1963, p.325)

These formal and substantial similarities suggest that online conspiracism may have its roots in a communication evanescence akin to the one that characterizes preliterate cultures. For some, examining online media through notions developed to investigate technologies such as the alphabet, print, radio, and television may seem like a stretch. However, as scholars have pointed out (see this thread in *Culture Digitally*: Pooley, 2015; Anderson, 2015; Sterne, 2015), it is a distinctive problem of media research that its objects evolve at an increasing speed. To cope with this changing landscape, media studies have proposed a multitude of ever-new concepts and theoretical constructs. This, however, comes with the risk of hiding long-term trends or, as this article argues, long-term swings. The attempt of explaining online conspirationism through the old-fashioned notion of 'secondary orality' does not deny the novelty of this phenomenon and does not cover all its characteristics, but has the advantage of reconnecting the current situation with established discussions in media studies.

Before unfolding this connection, however, it is necessary to explain how digital communication can be evanescent, despite being based on highly sophisticated technologies of archival and documentation. I will make this point first with a case study and then with a discussion of the happenings that turned online communication into a form of secondary orality.

A case study: Baking conspiracy narratives in 4chan

4chan is an online forum created in 2003 as the English version of the Japanese imageboard 2chan. Initially dedicated to discussions about anime and manga, 4chan has quickly become the source of some of the weirdest but also most iconic Internet memes (Shifman, 2013), including *LOLcats* (image macros of cats with misspelt captions); *Rickrolling* (the tricking of Web users into old Rick Astley videos); *rage comics* (crudely drawn cartoon faces expressing

anger). 4Chan is also the home of several lively online subcultures, including *bronies* (the adult, and especially male, fandom of the My Little Pony franchise); *Anonymous* (the international anti-governmental hacktivist collective); and the Alt-right (the far-right and white nationalist movement). Crucially for this project, many popular online conspiracy narratives (notably *Pizzagate* and *Qanon*) have also originated on 4chan.

To understand how 4chan has become the Petri dish of online fringe folklore, it is crucial to consider two technical features of this platform. First, 4chan encourages its users to post anonymously (under the pseudonym "anonymous", from which both the hacktivist collective and the Qanon cult took their name). Anonymity works as a liberating feature, allowing the publication of messages too outrageous for most other online and offline venues.

The second feature of 4chan is its *evanescence by design* (Hagen, 2018). The 74 boards of the platform are structured as lists of "threads", ranked according to the most recent comment they received. Because of this ranking system, threads are immediately pushed down by new arrivals and when falling below the 150th position are permanently deleted (after a three-days archival). To survive, threads need therefore to arouse the attention of users and spark a constant flow of comments to "bump them up". The maximum number of comments per thread being limited to a few hundred (300 for most boards), however, even popular threads are rapidly closed, downgraded and deleted. In most 4chan's boards, threads are extremely short-lived. Analyzing three years (July 2016 - October 2019) of data from 4chan/pol/ (the board dedicated to political discussions), Papasavva *et al.* (2020) found a daily average of more than 2.800 threads competing for the 150 spots in the board. Bernstein *et al.* (2011) calculated that the median lifespan of threads in the "random board" (4chan/b/) is below four minutes, with the longest-lived thread lasting a little more than six hours.

4chan is a perfect example of how, despite using communication formats (text and images) that could easily be preserved, online platforms can deliberately avoid such preservation. While there are external archives of 4chan's discussions (e.g. 4plebs, yuki.la, 4chanarchives, the Internet Archive), their records are scarcely mobilized within the original platform. Instead, 4chan communities assure the *perpetuation-without-preservation* of their folklore through the classic oral technique of tireless repetition. In 4chan, the practice of summarizing and reposting threads about to reach the maximum number of comments (and thus been pruned) is called "baking the general thread" (Bach *et al.*, 2020). Investigating Pizzagate (a 4chan conspiracy story that gained traction during the 2016 US elections and alleged that senior Democratic Party officials used pizza restaurants to cover up a child sex ring), Tuters *et al.*, 2018 describe how this practice allows not only the perpetuation but also the refining of 4chan folklore:

> This process involves anons combing through previous discussion threads in order to create a new thread that compiles all the salient details on a given topic … in addition to keeping a conversation alive after a thread has been purged, general threads are also crucial to the process of framing those discussions (Tuters *et al.*, 2018).

In a little more than 25 hours and through 19 rewrites, the storyline of Pizzagate was assembled, stitching together themes and characters from earlier conspiracies. Through this refinement, the narrative did not become any more solid by the standards of analytical

thinking, but it did increase its memorability and transmissibility. In the words of 4chan's founder:

> I really don't like permanent archives, I think that's a pretty dramatic change to the old spirit of the site, being that it has no memory. The only things remembered are the things that become memes, things that are reposted, things that resonate with an audience and are re-posted over and over again, and endure the test of time. The only survivors are those things [that] swim upstream through the waterfall of content, just like salmon (Christopher "moot" Poole, Q&A sessions on retiring from the platform, 2015, youtu.be/XYUKJBZuUig?t=5516, *01:35:14*).

Processes of this kind may help to explain why memetic contents originating in 4chan enjoy such a large and rapid spread in other online platforms. As species grow super-resistant by breeding in an exceptionally harsh environment, 4chan's subcultures survive by creating meaning in a platform that is engineered to be ephemeral, superficial, anonymous, and forgettable. No wonder the narratives thus created are twisted, but also no wonder that some of them spread like wildfire in online media. 4chaners call this vibrancy “meme magic” and argue that its power was vindicated by the surprise victory of their favorite candidate in the 2016 US election (Hine *et al.* 2017; Merrin, 2019).

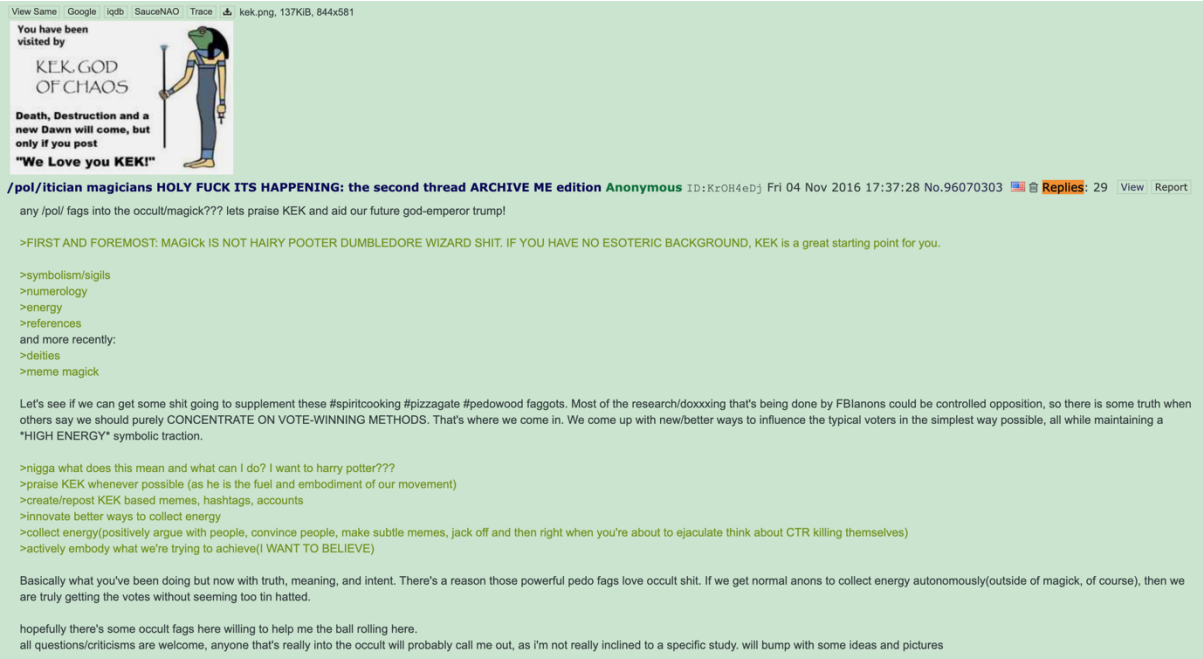

Fig. 1. 4chan post presenting Pizzagate mobilization as a form of meme magic (source archive.4plebs.org).

By embracing evanescence, 4chan has positioned itself as an extreme and monstrous example of the kind of secondary orality that, as discussed in the next section, increasingly characterizes all online communication. A positioning explicitly acknowledged in the “culture” section of 4chan frequently asked questions.

> A meme is basically an idea that is easily transferable from one mind to another. Think ‘catchphrases.’ Memes are created when a large group of users come to identify with a particular image or slogan. Their continued (mis)use will bring about the destruction of the universe (www.4chan.org/faq)

Theoretical framework: The attention economy of online communication flows

As discussed above, 4chan provides a vivid example of how literacy techniques, such as listing, timestamping, and ranking, can be repurposed for objectives opposite to the ones for which they were originally introduced: not to solidify communication, but to accelerate its flow. The same *media inversion* can be observed, though less obviously, across all online platforms.

As noted by Ong, while primary orality comes from the lack of documentation techniques, secondary orality comes from the inversion of the same techniques and "is essentially a more deliberate and self-conscious orality, based permanently on the use of writing and print, which are essential for the manufacture and operation of the equipment and for its use as well" (Ong, 1982, p. 133). Of course, Ong does not refer to online platforms, but to earlier broadcasting media. Since Raymond Williams's seminal book on television flow (1974), scholars noticed that audiovisual communication differs from written media (Newcomb & Hirsch, 1983; White, 2003). Watching television or listening to the radio encourage a floating attention and a constant flow of interruptions:

> One night in Miami, still dazed from a week on an Atlantic liner, I began watching a film and at first had some difficulty in adjusting to a much greater frequency of commercial 'breaks'. Yet this was a minor problem compared to what eventually happened. Two other films, which were due to be shown on the same channel on other nights, began to be inserted as trailers. A crime in San Francisco (the subject of the original film) began to operate in an extraordinary counterpoint not only with the deodorant and cereal commercials but with a romance in Paris and the eruption of a prehistoric monster who laid waste to New York (Williams, 1974, p. 92).

If it is easy to appreciate the evanescence of radio and television, it can be difficult to recognize the same flow in the World Wide Web, a communication technology that was originally established as a literary medium. After all, the Web communication protocol (the HyperText Transfer Protocol of Berners-Lee *et al.*, 1992) was designed to implement the Memex's dream of "a library of a million volumes… into one end of a desk" (Bush, 1945, p. 3). True to this inspiration, the early Web was a network of texts, the ultimate achievement of a culture of literacy and archival sciences. Yet, this librarian utopia was soon unsettled by the same factor that generated the flow of radio and television: the choice of advertising as its main funding model. Contrarily to archiving, advertising generates value not from the storing of information but from the flow of attention (Lanham, 2006; Terranova, 2012; Crogan & Kinsley, 2012). By making information abundant, Web technologies have diminished its value and spurred a market in which information is circulated at high speed and revenues extracted from attention flows. In the words of the first theorist of attention economy:

> In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention (Simon, 1971, p. 40).

Turning the Web into a market for advertising did not happen overnight and required two rounds of "economization" efforts (Çalişkan & Callon, 2010). The first was the creation of a standard market for online attention with the launch of Google Ads in the early 2000s. Google Ads is characterized by a full automation allowed by two computational innovations (Lee, 2011). The first is the use of the PageRank algorithm (Rieder, 2012) for the thematic matching of the offer and demand for advertising. The second is the way in which

advertising prices are ceaselessly established through an automatic system of asynchronous auctions (Mehta et al. 2007). This double automation allowed Google to handle micro-transactions unprofitable to traditional agencies, and to scale up its network to millions of buyers and sellers (thereby becoming the cornerstone of Google's revenues).

Creating a standardized attention market accessible to all websites, Google inaugurated the so-called Web2.0 (O'Reilly, 2007) and established advertising as its dominant business model. Still, Google Ads could not overcome the separation between the flow of advertising and the stillness of early web pages, nor control how websites organized contents and audiences consumed advertisements. Such control came with the rise of social media and their walled gardens (Berners-Lee, 2010; Helmond, 2015; Nechushtai, 2018). Structured as "platforms" (Gillespie, 2010; Plantin *et al.*, 2018), social media leverage their control on the production and consumption of digital contents to accelerate their circulation and thus increase their profits. Platforms do not function as bookstores organizing documents' retrieval; nor as newspapers curating an orderly selection of information. Platforms serve their users a stream of news and entertainment that (unlike the programming of radio and television) is personalized and optimized through two sociotechnical affordances (Bucher & Helmond, 2017; Bucher, 2012): algorithms and interfaces.

While much has been written on how recommendation generates polarization in online communication (Sunstein, 2001; Pariser, 2011), less attention has been dedicated to the way in which algorithms accelerate attention. Recommendation systems do not just *react* to users' preferences suggesting related contents, they also *proactively* push trending contents (Gillespie, 2016). Taking YouTube as an example, Joanna Zylinska (2020) observes that "instead of positioning the human against the machine, AI exponentially amplifies the knowledge shared by marketing experts with regard to our desires and fantasies, while being much quicker and much more efficient at actualising them" (p. 71). As candidly admitted by a YouTube developer:

> Many hours worth of videos are uploaded each second to YouTube. Recommending this recently uploaded ("fresh") content is extremely important for YouTube as a product. We consistently observe that users prefer fresh content, though not at the expense of relevance. *In addition to the first-order effect of simply recommending new videos that users want to watch, there is a critical secondary phenomenon of boot-strapping and propagating viral content* (Covington et al. 2016, p. 193, emphasis added).

A similar push for trendiness comes from the interfaces of social media. These interfaces erode the separation between advertisement and content, not only by making them look alike through classic "native advertising" techniques (Carlson, 2015), but also by providing all users with the same metrics available to commercial and political brands. By highlighting "vanity metrics" such as views, likes, shares, upvotes (Rogers, 2018), online platforms encourage "micro-celebrity" (Marwick & Boyd, 2011; Marwick, 2015) and "personal branding" (Khamis *et al.*, 2017). This incites users to adopt behaviors that mimic recommendation algorithms, finding and reposting trending content to perk up their followers' attention.

Through their algorithms and interfaces, social media platforms extend the logic of flows beyond advertising, creating a "frictionless flow of behavioral surplus" as Shoshana Zuboff calls it (2019, p. 101), enrolling contents and users in a relentless competition for an ephemeral visibility (Venturini, 2019). By turning the Web from an archive of documents to a marketplace where attention is handled as a constantly renewable flow (Webster, 2014),

online platforms create an evanescent communication environment not dissimilar to the one of oral cultures (Assman, 2016).

Findings: Two oral-like features of online conspiracism

The argument unfolded above helps explain the success of conspiratorial folklore. Crafted by subcultures that embrace the evanescence of digital orality, conspiracy narratives are perfectly attuned to the attention flows of social media. Stories, such as Pizzagate or Qanon, thrive *not despite* but *because of* the qualities that make them unpalatable to literate commentators. Considered as positive rather than negative, their features are the same that assure the survival of ideas in preliterate societies. Reading from the list provided by Ong (1982, pp. 36-56), they are additive rather than subordinative; aggregative rather than analytic; redundant or 'copious'; conservative or traditionalist; close to the human lifeworld; agonistically toned; empathetic and participatory rather than objectively distanced; homeostatic; and situational rather than abstract. All these features equally apply to the myths of preliterate societies and to the conspiratorial cults (Campbell, 1972) of digital platforms. Two features of conspiratorial narratives – *elasticity* and *flagrancy* – deserve a special discussion as they can be directly mapped onto the two crucial qualities of oral folklore – *repeatability* and *memorability*.

The first feature – "elasticity" or "homeostasis" (as commonly called in cultural anthropology) – describes a process of sensemaking based on fluid adaptation rather than analytical accumulation. To appreciate the similarity between primary and secondary orality phenomena, just juxtapose the conclusion of Goody and Watt's paper on the *The Consequences of Literacy* (1963), with the introduction of Muirhead and Rosenblum's book on online conspiracism (2019):

> In oral societies the cultural tradition is transmitted almost entirely by face-to-face communication; and changes in its content are accompanied by the homeostatic process of forgetting or transforming those parts of the tradition that cease to be either necessary or relevant. Literate societies, on the other hand, cannot discard, absorb, or transmute the past in the same way. Instead, their members are faced with permanently recorded versions of the past and its beliefs; and because the past is thus set apart from the present, historical enquiry becomes possible. This in turn encourages scepticism; and scepticism, not only about the legendary past, but about received ideas about the universe as a whole. From here the next step is to see how to build up and to test alternative explanations: and out of this there arose the kind of logical, specialized, and cumulative intellectual tradition (Goody & Watt, 1963, p. 344).

> The new conspiracism is something different. There is no punctilious demand for proofs, no exhaustive amassing of evidence, no dots revealed to form a pattern, no close examination of the operators plotting in the shadows. The new conspiracism dispenses with the burden of explanation… This is conspiracy without the theory. What validates the new conspiracism is not evidence but repetition. When Trump tweeted the accusation that President Barack Obama had ordered the FBI to tap his phones in October before the 2016 election, no evidence of the charge was forthcoming. What mattered was not evidence but the number of retweets the president's post would enjoy: the more retweets, the more credible the charge. Forwarding, reposting, retweeting, and "liking": these are how doubts are instilled and accusations are validated in the new media (Muirhead & Rosenblum, 2019, p.3).

The fact that online conspiracism secures its durability through elasticity rather than consistency is the reason why this paper insists on calling its expressions "conspiracy

narratives" rather than "conspiracy theories". In her monumental research on *The Printing Press as an Agent of Change* (1980), Elisabeth Eisenstein convincingly argued that "theory", in the modern and scientific sense of the word, is only possible in a literate environment. Without writing and printing technologies assuring not only the conservation but also the reproduction of ideas in a *fixed yet transferable* form (as "immutable mobiles" as Latour, 1987 calls them), it is not possible to carry out the kind of analytical inspection and coherency check that constitutes the foundation of modern science:

> A disorder previously concealed by oral presentation and piecemeal copying, became more visible to copy-editors and indexers and more offensive to publishers who valued systematic routines. Classical criteria of unity, internal consistency and harmony were extended beyond orations, poems, and paintings to encompass the rearrangement of large compilations and of entire fields of study (Eisenstein, 1980, p. 102)

With their call for transparency and their obsession for "connecting the dots", classic conspiracy theories mimic (although in a twisted way) the analytical posture of sciences (Birchall, 2014 & 2020). A posture that, as argued by Muirhead & Rosenblum (2019), cannot be further removed from the oral elasticity of online conspiracy narratives. Digital conspiratorial folklore might fulfill the same need of reassurance of classic conspiracy theories yet, unlike them, it does so not through over-rationalization but through the soothing power of repetition.

The second key feature of digital orality is its *flagrancy*, that is its capacity to command and retain attention by shocking its audience. In Ong's list of oral qualities, this feature is captured by the idea of "agonistic tone":

> Many, if not all, oral or residually oral cultures strike literates as extraordinarily agonistic in their verbal performance and indeed in their lifestyle… Proverbs and riddles are not used simply to store knowledge but to engage others in verbal and intellectual combat… Bragging about one's own prowess and/or verbal tongue-lashings of an opponent figure regularly in encounters between characters in narrative (p. 43).
>
> Enthusiastic description of physical violence often marks oral narrative. In the Iliad, for example, Books VIII and X would at least rival the most sensational television and cinema shows today in outright violence and far surpass them in exquisitely gory detail (Ong, 1982, p. 44)

Once more, this quality can be attributed to the evanescence of oral communication. Agonism and violence are prevalent in oral communication because their flagrancy is hard to ignore or disengage from – a virtue that has not been lost on oral performers of all times, including the digital ones. Common in online settings, this communication technique is known as "trolling" (Bishop, 2014; Schwartz, 2008). Online trolls hijack attention by asking silly questions; voicing outraging ideas; insulting others; violating community codes; and, in general, pushing others into controversies and "flame wars" (Lee, 2005; Schachaf & Hara, 2010). Online trolling bears striking similarities to the practice of name-calling so "standard in oral societies across the world [that] it has been fitted with a specific name in linguistics: flyting" (Ong, p. 43).

Online conspiracism is, in many ways, a form of trolling, as explicitly professed by many of its proponents, among which the users of 4chan/pol, who proudly refer to themselves as "shitposters" (Phillips, 2015). Compared to traditional conspiracists, online shitposters are less interested in persuading their audience than in provoking them, in a sort of

communicational “live action role-playing” (Tuters, 2019). The provocative and conflict-ridden nature of conspiratorial folklore is so marked that computer scientists working with sentiment analysis have suggested that these qualities could be effectively used to identify junk news, which “tend to be shorter in length, convey less clout (expertise or confidence), appear more negative in tone (greater anxiety, sadness, or hostility), and denote lesser analytical thinking (more informal, personal, here-and-now, and narrative thinking)” (Singh, 2017). Recent research has also suggested that fabricated stories tend to inspire surprise and disgust and that these high-arousal feelings can explain why these stories spread “farther, faster, deeper, and more broadly” in online media (Vosoughi et al., 2018; see also Berger & Milkman, 2012; Guadagno et al., 2013).

The tendency to use outrage to retain attention is thus crucial to understanding the success of online conspiracism and to reconciling it with its ‘monstrosity’. Conspiratorial narratives thrive not because they succeed in widening the range of topics acceptable to the public but, on the contrary, because they continuously position themselves outside this “overton window” (Daniels, 2018; Peeters, 2020). By their extreme political incorrectness, conspiratorial narratives constitute forms of “excitable speech” with a “power to injure” (Butler, 1997), which make it difficult to ignore or forget them, even in the short-memory environment of online media. As the alt-right slogan goes: “conflict is attention and attention is influence” (Marantz, 2019). Recognizing that conspiracy narratives create outrage to make themselves more memorable suggests that just ignoring them may be more effective than denouncing or debunking them thus providing the "oxygen of amplification" they need to survive online (Phillips, 2016).

Conclusion: Studying conspiracism through time series and quali-quantitative methods

While this paper has shed some new light on the nature of online conspiracism, it has certainly not exhausted its inquiry. The landscape of digital orality is so uncharted that its mapping could only start with a rough conceptual outline. Hopefully, this outline will encourage further empirical explorations for, as in most collective phenomena, the devil is in the details.

For example, while every platform relies on some form of *attention queue management*, the precise functioning of these systems is extremely varied. In 4chan, attention management is strictly chronological. In Reddit, visibility is regulated by a voting system; in Twitter, by a system of keywords (hashtags); in YouTube, by a recommendation algorithm; in Facebook by a mix of the previous. Considering the nuts and bolts of these “engines of order” (Rieder, 2020) is crucial, for each of them may have major communication impacts. For instance, when in 2012 YouTube readjusted its recommendation algorithm to maximize the total watch time rather than the number of views (Meyerson, 2012), the change had profound repercussions on the popularity (and on the monetization) of videos and thus on the platform’s practices. Almost overnight, catchy short snippets became less interesting than longer and more captivating videos (van Es, 2020).

And visibility algorithms are but one of the factors shaping online attention dynamics and conspiratorial cultures. As all forms of folklore, conspiratorial narratives cannot be separated from the situations in which they emerge and from the factors that facilitate or hinder their translation to other situations. Each instance of conspiratorial folklore should

then be investigated by asking at least five research questions roughly corresponding to the components of oral performances:

1. *Actors & entrepreneurs*: Who are the actors, creating and interpreting online conspiratorial folklore, and who are the conspiracy entrepreneurs (Sunstein & Vermeule, 2009; Campion-Vincent, 2015) organizing the translation of ideas across digital platforms?
2. *Performance*: What are the features of successful narratives in the regime of evanescent attention of online platforms? How are conspiratorial imaginaries created and maintained despite (or rather by means of) the lack of infrastructural memory?
3. *Spectators*: What is the role of the audience in the performance of digital folklore? How are publics activated by conspiracy narratives?
4. *Staging*: What are the infrastructures that allow conspiratorial narratives to emerge as streams of online attention and what mechanisms allow extracting value from them?
5. *Critique*: How can we study evanescent communication phenomena tracing their dynamics, but also avoid skewing their nature by turning them into data archives (arguably the opposite oral flows)?

The last one is a meta-question essential to recognize that the study of online conspiracism cannot be unaffected by the oral nature of its object. Sidestepping our literate biases, as we did in this paper, is necessary but not sufficient. Inquiring into digital folklore also requires finding methodological tools capable of seizing the fluid nature of online communication. With some notable exceptions (e.g., Leskovec *et al.*, 2009; Boydstun *et al.*, 2015), media studies have not yet adjusted to the inversion of online media we discussed and still rely on methods developed for the study of documents archives rather than attention streams. Taking conspiratorial folklore seriously requires not only a conceptual reorientation but also a *twofold methodological shift*: towards research techniques that are (1) *temporal rather spatial* and (2) *immersive rather data oriented*.

Crucial in the ‘70s and ‘80s to investigate a media system ruled by the programming of a few broadcasters (Downs, 1972; Hilgartner & Bosk, 1988), temporal methods lost steam with the advent of digital networks and the extension they brought with them. Because of this extension, the question of the occupation of public debate began to be formulated in spatial rather than in temporal terms. Armed with methods derived from scientometrics and network analysis, media scholars (myself included, Venturini, 2012; Venturini et al., 2017) started inquiring into the clustering (Adamic & Glance, 2005; Barberá *et al.*, 2015) and hierarchies (Barabási, 2002; Hindman, 2009) of online networks, focusing on where and by whom issues were discussed, rather than when and for how long.

Insightful as it is, this type of research is ill adapted to the temporal dynamics of secondary orality. The elements characterizing the early Web (hyperlinks, keywords, and search indexes) and the methods developed for their study (Rogers, 2013 & 2019) have lost some of their pregnancy and need to be combined with techniques derived from the analysis of time series and self-exciting processes (Crane & Sornette, 2008; Lorenz-Spreen *et al.*, 2019; see also Castaldo et al., 2021 for a first installment of this research). My argument here echoes McCombs's plea (2005) to revive the “agenda setting” research (McCombs & Shaw, 1972; McCombs, 2004), but invert the direction of such research – investigating not how

stories trickle down from the center to the periphery of the media system, but how they trick up from the fringes to mainstream of the Web.

The second methodological shift circles back to the initial difficulty considered in this document: if online conspiratorial folklore is an oral phenomenon, then its nature contrasts not only with the analytical thinking typical of literate science, but also with the kind of data-oriented methods characteristic of computational social sciences (Lazer *et al.*, 2009) and digital sociology (Marres, 2017). Leveraging these methods in this research programme requires therefore using them in a way that does not deny the nature of online folklore – which raises problems similar to the ones connected to the use of audio recording in the study of preliterate culture (Goody, 2010). To make sense of a set of narratives that are as evanescent a preliterate folklore and yet based on the most sophisticated technologies of digital tracing, this project will have to rely on data-intensive research methods but also combine them with a fieldwork sensitivity inspired by ethnography, in an extreme attempt of quali-quantitative research (Venturini & Latour, 2010; Venturini et al., 2015). This paper, no doubt about it, has not said the last word on online folklore.

References

Adamic, Lada A., and Natalie Glance. 2005. "The Political Blogosphere and the 2004 US Election: Divided They Blog." In *Proceedings of the 3rd International Workshop on Link Discovery*, 36–43. New York, New York, USA: ACM. https://doi.org/10.1145/1134271.1134277.

Almaliki, Malik. 2019. "Online Misinformation Spread: A Systematic Literature Map." *ACM International Conference Proceeding Series*, 171–78. https://doi.org/10.1145/3325917.3325938.

Anderson, Chris. 2015. "Media Scholarship and Digital Time." *Culture Digitally*. https://culturedigitally.org/2015/06/media-scholarship-and-digital-time-2/

Assman, Aleida. 2006. "The Printing Press and the Internet: From a Culture of Memory to a Culture of Attention." In *Globalisation, Cultural Identities and Media Representations*, edited by Natasha Gentz and Stefan Kramer, 11–22.

Bach, Daniel, M Ryan Tsapatsaris, Mischa Szpirt, and Lea Custodis. 2020. "The Baker's Guild : The Secret Order Countering 4chan ' s Affordances." https://oilab.eu/the-bakers-guild-the-secret-order-countering-4chans-affordances/.

Barabási, Albert-László. 2002. *Linked: The New Science of Networks. How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life*. Cambridge Mass.: Perseus Books. http://books.google.com/books?id=rydKGwfs3UAC&pgis=1.

Barberá, Pablo, John T Jost, Jonathan Nagler, Joshua A Tucker, and Richard Bonneau. 2015. "Tweeting from Left to Right: Is Online Political Communication More Than an Echo Chamber?" *Psychological Science* 26 (10): 1531–42. https://doi.org/10.1177/0956797615594620.

Basham, Lee. 2006. *Living with Conspiracy*. London: Routledge.

Berger, Jonah, and Katherine L. Milkman. 2012. "What Makes Online Content Viral?" *Journal of Marketing Research* 49(2): 192–205. https://doi.org/10.1509/jmr.10.0353.

Berners-Lee, Tim. 2010. "Long Live the Web." *Scientific American* 303(6): 80–85.

Berners-Lee, Tim, Robert Cailliau, Jean Francois Groff, and Bernd Pollermann. 1992. "World-Wide Web: The Information Universe." *Internet Research* 2 (1): 52–58. https://doi.org/10.1108/eb047254.

Bernstein, Michael S, Andrés Monroy-Hernández, Drew Harry, Paul André, Katrina Panovich, and Gregory G Vargas. 2011. "4chan and/b: An Analysis of Anonymity and Ephemerality in a Large Online Community." In *ICWSM*, 50–57.

Birchall, Claire. 2006. *Knowledge Goes Pop*. Oxford: Berg Publishers.

Birchall, Claire. 2014. "Radical Transparency?" *Cultural Studies - Critical Methodologies* 14 (1): 77–78. https://doi.org/10.1177/1532708613517442.

Birchall, Claire. 2020. *Hot Gossip: The Cultural Politics of Speculation*. *Knowledge Goes Pop*. https://doi.org/10.4324/9781003085812-4.

Bishop, Jonathan. 2014. "Representations of 'trolls' in Mass Media Communication: A Review of Media-Texts and Moral Panics Relating to 'Internet Trolling.'" *International Journal of Web Based Communities* 10 (1): 7. https://doi.org/10.1504/IJWBC.2014.058384.

Boydstun, Amber E., Anne Hardy, and Stefaan Walgrave. 2014. "Two Faces of Media Attention: Media Storm Versus Non-Storm Coverage." *Political Communication* 31 (4): 509–31. https://doi.org/10.1080/10584609.2013.875967.

Bucher, Taina. 2012. "A Technicity of Attention: How Software Make Sense." *Cultural Machine* 13: 1–23.

Bucher, Taina, and Anne Helmond. 2017. "The Affordances of Social Media Platforms." In *The SAGE Handbook of Social Media*, edited by Jean Burgess, Thomas Poell, and Alice Marwick. London: Sage.

Bush, Vannevar. 1945. "As We May Think." *The Atlantic Monthly* 176 (1): 101–8.

Butler, Judith. 1997. *Excitable Speech: A Politics of the Performative*. London: Routledge.

Çalişkan, Koray, and Michel Callon. 2009. "Economization, Part 1: Shifting Attention from the Economy towards Processes of Economization." *Economy and Society* 38 (3): 369–98. https://doi.org/10.1080/03085140903020580.

Campbell, Colin. 1972. "The Cult, the Cultic Milieu and Secularization." In *A Sociological Yearbook of Religion in Britain*, 119–36.

Campion-Vincent, Véronique. 2015. "Note Sur Les Entrepreneurs En Complots." *Diogène* 249–250 (1): 99. https://doi.org/10.3917/dio.249.0099.

Carlson, Matt. 2015. "When News Sites Go Native: Redefining the Advertising-Editorial Divide in Response to Native Advertising." *Journalism* 16 (7): 849–65. https://doi.org/10.1177/1464884914545441.

Carmi, Elinor. 2020. *Media Distortions*. New York: Peter Lang. DOI: 10.3726/b15334.

Castaldo, Maria, Venturini, Tommaso, Frasca, Paolo, & Gargiulo, Floriana (2021). Junk news bubbles modelling the rise and fall of attention in online arenas. New Media & Society, (forthcoming), 146144482097864. https://doi.org/10.1177/1461444820978640

Covington, Paul, Jay Adams, and Emre Sargin. 2016. "Deep Neural Networks for YouTube Recommendations." *Proceedings of the 10th ACM Conference on Recommender Systems - RecSys '16*, 191–98. https://doi.org/10.1145/2959100.2959190.

Crane, Riley, and Didier Sornette. 2008. "Robust Dynamic Classes Revealed by Measuring the Response Function of a Social System." *PNAS* 105 (41): 15649–53. https://doi.org/10.1073/pnas.0803685105.

Crogan, Patrick, and Samuel Kinsley. 2012. "Paying Attention: Toward a Critique of the Attention Economy." *Culture Machine* 13: 1–29.

Dafaure, Maxime. 2020. "The 'Great Meme War:' The Alt-Right and Its Multifarious Enemies." *Angles*, no. 10: 0–28. https://doi.org/10.4000/angles.369.

Daniels, Jessie. 2018. "The Algorithmic Rise of the 'Alt-Right.'" *Contexts* 17(1): 60–65. https://doi.org/10.1177/1536504218766547.

Douglas, Karen M., Robbie M. Sutton, and Aleksandra Cichocka. 2017. "The Psychology of Conspiracy Theories." *Current Directions in Psychological Science* 26 (6): 538–42. https://doi.org/10.1177/0963721417718261.

Douglas, Karen M., Joseph E. Uscinski, Robbie M. Sutton, Aleksandra Cichocka, Turkay Nefes, Chee Siang Ang, and Farzin Deravi. 2019. "Understanding Conspiracy Theories." *Political Psychology* 40 (S1): 3–35. https://doi.org/10.1111/pops.12568.

Downs, Anthony. 1972. "Up and down with Ecology: The 'Issue-Attention Cycle.'" *The Public Interest* 28: 38–50.

Eisenstein, Elizabeth L. 1980. *The Printing Press as an Agent of Change*. Cambridge: University Press.

Fenster, M. 2008. *Conspiracy Theories: Secrecy and Power in American Culture*. Minneapolis: University Press.

Gillespie, Tarleton. 2010. "The Politics of 'Platforms.'" *New Media & Society* 12 (3): 347–64. https://doi.org/10.1177/1461444809342738.

Gillespie, Tarleton. 2016. “#trendingistrending When Algorithms Become Culture.” In *Algorithmic Cultures: Essays on Meaning, Performance and New Technologies*, edited by Robert Seyfert and Jonathan Roberge, 52–75. London and New York: Routledge.

Glick, Peter. 2005. “Choice of Scapegoats.” In *On the Nature of Prejudice: Fifty Years after Allport*, edited by John F. Dovidio, Peter Glick, and Laurie A. Rudman, 244–61. Malden, Mass.: Blackwell.

Goody, Jack. 2010. *Myth, Ritual and the Oral*. Cambridge: University Press.

Goody, Jack, and Ian Watt. 1963. “The Consequences of Literacy.” *Comparative Studies in Society and History* 5 (3): 304–45. https://doi.org/10.1080/10635150500431239.

Guadagno, Rosanna E., Daniel M. Rempala, Shannon Murphy, and Bradley M. Okdie. 2013. “What Makes a Video Go Viral? An Analysis of Emotional Contagion and Internet Memes.” *Computers in Human Behavior* 29 (6): 2312–19. https://doi.org/10.1016/j.chb.2013.04.016.

Hagen, Sal. 2018. “Rendering Legible the Ephemerality of 4chan/Pol/.” *Open Intelligence Lab*, April 12, 2018. oilab.eu/rendering-legible-the-ephemerality-of-4chanpol/.

Hebdige, Dick. 1979. *Subcultures: The Meaning of Style*. *Queen’s Quarterly*. London: Methuen & Co. Ltd.

Helmond, Anne. 2015. “The Platformization of the Web: Making Web Data Platform Ready.” *Social Media + Society* 1 (2): 1–11. https://doi.org/10.1177/2056305115603080.

Hilgartner, Stephen, and Charles L. Bosk. 1988. “The Rise and Fall of Social Problems: A Public Arenas Model.” *American Journal of Sociology* 94 (1): 53–78. https://doi.org/10.1215/00166928-43-1-2-61.

Hindman, Matthew. 2009. *The Myth of Digital Democracy*. Princeton: Princeton University Press.

Hine, Gabriel Emile, Jeremiah Onaolapo, Emiliano De Cristofaro, Nicolas Kourtellis, Ilias Leontiadis, Riginos Samaras, Gianluca Stringhini, and Jeremy Blackburn. 2017. “Kek, Cucks, and God Emperor Trump: A Measurement Study of 4chan’s Politically Incorrect Forum and Its Effects on the Web.” *Proceedings of the 11th International Conference on Web and Social Media, ICWSM 2017*, 92–101. https://doi.org/10.5281/zenodo.841769.

Horne, Benjamin D., and Sibel Adali. 2017. “This Just In: Fake News Packs a Lot in Title, Uses Simpler, Repetitive Content in Text Body, More Similar to Satire than Real News.” http://arxiv.org/abs/1703.09398.

Howard, Robert Glenn. 2008. “The Vernacular Web of Participatory Media.” *Critical Studies in Media Communication* 25 (5): 490–513. https://doi.org/10.1080/15295030802468065.

Khamis, Susie, Lawrence Ang, and Raymond Welling. 2017. “Self-Branding, ‘Micro-Celebrity’ and the Rise of Social Media Influencers.” *Celebrity Studies* 8 (2): 191–208. https://doi.org/10.1080/19392397.2016.1218292.

Knight, Peter. 2000. *Conspiracy Culture: From the Kennedy Assassination to The X-Files*. London: Routledge.

Lanham, Richard A. 2006. *The Economics of Attention: Style and Substance in the Age of Information*. Chicago: University Press.

Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge Mass.: Harvard University Press. http://www.amazon.com/Science-Action-Scientists-Engineers-through/dp/0674792912.

Lazer, David, Alex Pentland, Lada Adamic, Sinan Aral, Albert-Laszlo Barabasi, Devon Brewer, Nicholas Christakis, et al. 2009. “Computational Social Science.” *Science* 323 (5915): 721–23. https://doi.org/10.1126/science.1167742.

Lee, Hangwoo. 2005. “Behavioral Strategies for Dealing with Flaming in an Online Forum.” *Source: The Sociological Quarterly* 46 (2): 385–403. http://www.jstor.org/stable/4120995?seq=1&cid=pdf-reference#references_tab_contents%5Cnhttp://about.jstor.org/terms.

Lee, Micky. 2011. “Google Ads and the Blindspot Debate.” *Media, Culture & Society* 33 (3): 433–47. https://doi.org/10.1177/0163443710394902.

Leskovec, Jure, Lars Backstrom, and Jon Kleinberg. 2009. “Meme-Tracking and the Dynamics of the News Cycle.” In *Proceedings of the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 497–506. Paris, France: ACM. https://doi.org/10.1145/1557019.1557077.

Lorenz-Spreen, Philipp, Bjarke Mørch Mønsted, Philipp Hövel, and Sune Lehmann. 2019. “Accelerating Dynamics of Collective Attention.” *Nature Communications* 10 (1): 1759. https://doi.org/10.1038/s41467-019-09311-w.

Marantz, Andrew. 2019. *Antisocial: Online Extremists, Techno-Utopians, and the Hijacking of the American Conversation*. New York: Viking Penguin.

Marcus, George E. 1999. *Paranoia within Reason: A Casebook on Conspiracy as Explanation*. Chicago: University Press.

Marres, Noortje. 2017. *Digital Sociology: The Reinvention of Social Research*. Maden: Polity Press.

Marwick, Alice E. 2015. "Instafame: Luxury Selfies in the Attention Economy." *Public Culture* 27 (1 75): 137–60. https://doi.org/10.1215/08992363-2798379.

Marwick, Alice, and Danah Boyd. 2011. "To See and Be Seen: Celebrity Practice on Twitter." *Convergence* 17 (2): 139–58. https://doi.org/10.1177/1354856510394539.

McCombs, Maxwell. 2004. *Opinion, Setting the Agenda: Mass Media and Public*. Cambridge: Polity.

McCombs, Maxwell. 2005. "A Look at Agenda-Setting: Past, Present and Future." *Journalism Studies* 6 (4): 543–57. https://doi.org/10.1080/14616700500250438.

McCombs, Maxwell E., and Donald L. Shaw. 1972. "The Agenda-Setting Function of Mass Media." *Public Opinion Quarterly* 36 (2): 176. https://doi.org/10.1086/267990.

McLuhan, Marshall. 1964. *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.

Mehta, Aranyak, Amin Saberi, Umesh Vazirani, and Vijay Vazirani. 2007. "AdWords and Generalized On-Line Matching." *46th Annual IEEE Symposium on Foundations of Computer Science (FOCS'05)* V (August): 264–73. https://doi.org/10.1109/SFCS.2005.12.

Merrin, William. 2019. "President Troll: Trump, 4Chan and Memetic Warfare." In *Trump's Media War*, 201–26. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-94069-4_13.

Meyerson, Eric. 2012. "YouTube Now: Why We Focus on Watch Time." Youtube Creator Blog, August 10, 2012. 2012. https://youtube-creators.googleblog.com/2012/08/youtube-now-why-we- focus-on-watch-time.html.

Muirhead, Russel, and Nancy Rosenblum. 2019. *A Lot of People Are Saying*. Princeton: University Press.

Munn, Luke. 2019. "The High/Low Toggle: Alt-Right Code Switching on 8chan." *Navigationen-Zeitschrift Für Medien-Und Kulturwissenschaften* 19 (2): 149–60. https://www.researchgate.net/publication/342184398_The_HighLow_Toggle_Alt-Right_Code_Switching_on_8chan.

Nechushtai, Efrat. 2018. "Could Digital Platforms Capture the Media through Infrastructure?" *Journalism* 19 (8): 1043–58. https://doi.org/10.1177/1464884917725163.

Newcomb, Horace, and Paul M. Hirsch. 1983. "Television as a Cultural Forum." *Quarterly Review of Film & Video* 8 (3): 45–55.

O'Reilly, Tim. 2007. "What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software." *International Journal of Digital Economics* 65 (March): 17–37.

Ong, Walter S J. 1982. *Orality and Literacy - The Technologizing of the Word*. London: Methuen.

Papasavva, Antonis, Savvas Zannettou, Emiliano De Cristofaro, Gianluca Stringhini, and Jeremy Blackburn. 2020. "Raiders of the Lost Kek: 3.5 Years of Augmented 4chan Posts from the Politically Incorrect Board," no. Icwsm. http://arxiv.org/abs/2001.07487.

Pariser, Eli. 2011. *The Filter Bubble. What the Internet Is Hiding from You*. New York: Penguin Press.

Peeters, Stijn. 2020. "Normiefication of Extreme Speech and the Widening of the Overton Window." 2020. https://oilab.eu/normiefication-of-extreme-speech-and-the-widening-of-the-overton-window/.

Phillips, Whitney. 2015. *This Is Why We Can't Have Nice Things: Mapping the Relationship between Online Trolling and Mainstream Culture*. Cambridge Mass.: MIT Press.

Phillips, Whitney. 2016. "The Oxygen of Amplification." *Data & Society Research Institute*. https://datasociety.net/output/oxygen-of-amplification/.

Plantin, Jean-christophe, Carl Lagoze, Paul N Edwards, and Christian Sandvig. 2018. "Infrastructure Studies Meet Platform Studies in the Age of Google and Facebook." *New Media & Society* 20 (1): 293–310. https://doi.org/10.1177/1461444816661553.

Popper, Karl. 1945. *The Open Society and Its Enemies*. London: Routledge & Kegan Paul.

Pooley, Jefferson. 2015. “Media Scholarship Needs Updating: Iterative Article Editions for a Sped-Up World.” *Culture Digitally*. http://culturedigitally.org/2015/05/media-scholarship-needs-updating-iterative-article-editions-for-a-sped-up-world/

Rieder, Bernhard. 2020. *Engines of Order: A Mechanology of Algorithmic Techniques.* Amsterdam: University Press.

Rieder, Bernhard. 2012. “What Is in PageRank? A Historical and Conceptual Investigation of a Recursive Status Index.” *Computational Culture a Journal of Software Studies*, 1–28. http://computationalculture.net/article/what_is_in_pagerank.

Rogers, Richard. 2018. “Otherwise Engaged: Social Media from Vanity Metrics to Critical Analytics.” *International Journal of Communication* 12 (732942): 450–72.

Rogers, Richard. 2019. *Doing Digital Methods*. Los Angeles, Ca.: Sage.

Rogers, Richard. 2013. *Digital Methods*. Cambridge Mass.: MIT Press.

Schachaf, Pnina, and Noriko Hara. 2010. “Beyond Vandalism: Trolls in Wikipedia.” *Journal of Information Science* 36 (3): 357–70.

Schwartz, Mattathias. 2008. “The Trolls Among Us.” *The New York Times*, August 3, 2008. http://www.nytimes.com/2008/08/03/magazine/03trolls-t.html.

Shifman, Limor. 2013. *Memes in Digital Culture*. Cambridge Mass.: MIT Press.

Shu, Kai, Amy Sliva, Suhang Wang, Jiliang Tang, and Huan Liu. 2017. “Fake News Detection on Social Media: A Data Mining Perspective” 19 (1): 22–36. https://doi.org/10.1145/3137597.3137600.

Simon, Herbert A. 1971. “Designing Organizations for an Information Rich World.” In *Computers, Communications, and the Public Interest*, edited by M Greenberger, 37–72. Baltimore: Johns Hopkins Press.

Singh, Vivek, Rupanjal Dasgupta, Darshan Sonagra, Karthik Raman, and Isha Ghosh. 2017. “Automated Fake News Detection Using Linguistic Analysis and Machine Learning.” In *International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS)*. https://doi.org/10.13140/RG.2.2.16825.67687.

Sterne, Jonathan. 2015. “Running Towards Publication, Then Walking Away.” *Culture Digitally*. https://culturedigitally.org/2015/06/running-towards-publication-then-walking-away/

Sunstein, Cass. 2001. *Republic.Com*. Princeton: University Press. http://www.amazon.com/Republic-com-Cass-Sunstein/dp/0691070253.

Sunstein, Cass, and Adrian Vermeule. 2009. “Conspiracy Theories: Causes and Cures.” *Journal of Political Philosophy* 17 (2): 202–27. https://doi.org/10.1111/j.1467-9760.2008.00325.x.

Terranova, Tiziana. 2012. “Attention, Economy and the Brain.” *Culture Machine* 13: 1–19.

Tuters, Marc. 2019. “LARPing & Liberal Tears. Irony, Belief and Idiocy in the Deep Vernacular Web.” In *Post-Digital Cultures of the Far Right*, 37–48. Bielefeld. https://doi.org/10.14361/9783839446706-003.

Tuters, Marc, Emilija Jokubauskaitė, and Daniel Bach. 2018. “Post-Truth Protest: How 4chan Cooked-up the Pizzagate Bullshit Introduction.” *M/C Journal* 21 (3). http://journal.media-culture.org.au/index.php/mcjournal/article/view/1422.

Van Es, Karin. 2020. “YouTube’s Operational Logic: ‘The View’ as Pervasive Category.” *Television and New Media* 21 (3): 223–39. https://doi.org/10.1177/1527476418818986.

Venturini, Tommaso (2012). Great expectations : méthodes quali-quantitative et analyse des réseaux sociaux. In J.-P. Fourmentraux (Ed.), *L’Ère Post-Media. Humanités digitales et Cultures numériques* (Vol. 104, pp. 39–51). Paris: Hermann.

Venturini, Tommaso, & Latour, Bruno (2010). The Social Fabric: Digital Traces and Quali-quantitative Methods. In *Proceedings of Future En Seine 2009* (pp. 87–101). Paris: Editions Future en Seine.

Venturini, Tommaso, Jensen, Pablo, & Latour, Bruno (2015). Fill in the Gap: A New Alliance for Social and Natural Sciences. *Journal of Artificial Societies and Social Simulation*, 18(2), 11. https://doi.org/10.18564/jasss.2729

Venturini, Tommaso, Jacomy, Mathieu, Meunier, Axel, & Latour, Bruno (2017). An unexpected journey: A few lessons from sciences Po médialab's experience. *Big Data & Society*, 4(2), 205395171772094. https://doi.org/10.1177/2053951717720949

Vosoughi, Soroush, Deb Roy, and Sinan Aral. 2018. "The Spread of True and False News Online." *Science* 359 (6380): 1146–51. https://doi.org/10.1126/science.aap9559.

Webster, James. 2014. *The Marketplace of Attention*. Cambridge Mass.: MIT Press.

White, Mimi. 2003. "Flows and Other Close Encounters with Television." *Planet TV: A Global Television Reader*, 1–30. http://web.mit.edu/cms/Events/mit2/Abstracts/MimiWhite.pdf.

Williams, Raymond. 1974. *Television. Technology and Cultural Form*.

Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism*. New York: Hachette. https://doi.org/10.1386/jdmp.10.2.229_5.

Zylinska, Joanna. 2020. *AI Art : Machine Visions and Warped Dreams*. https://library.oapen.org/bitstream/20.500.12657/40042/1/Zylinska_2020_AI-Art.pdf.