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Framing in a Fractured Democracy: Impacts of Digital Technology on Ideology, Power and Cascading Network Activation

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With the maturation of social media as a form of communication and the decline in mainstream institutional journalism, scholars must reevaluate the processes through which information is produced, distributed, assimilated, and acted upon. We consider five important, new, digitally enabled "pump-valves" in the flow of socio-political information and frames: platforms, analytics, algorithms, ideological media, and rogue actors. We revise the cascading network activation model of frame activation and spread, developed before digital media's rise. This new integrated model illuminates how these five features of digitalization affect relationships among elites, traditional media, and individuals, and suggests research on whether they flatten and democratize hierarchies of information control and power or entrench dominant structures.

Keywords: Framing, Cascading Network Activation, Digital Media, Social Media, Polarization, Ideological Media, Platforms, Algorithms, Analytics.

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With the maturation of social media as a form of political communication and information consumption and the decline in the fortunes and authority of institutional journalism, scholars must reevaluate the processes through which news is produced, distributed, assimilated, and acted upon. Included among these imperatives is a reassessment of framing. In a special issue assessing communication's status as a discipline, Entman (1993) wrote of framing as a fractured paradigm, and argued conceptually-enhanced framing research could offer critical insights into the influences of communication on consciousness, behavior, and power.

The concept of framing organizes scholarly understanding of exactly how communication promotes particular interpretations of reality via the interaction of individuals' existing schemas—themselves largely products of prior framing—and newly communicated information. Frames activate and spread among elites, journalists, and citizens,

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through both strategic and non-strategic communication. Because framing connects on a fundamental level to the core processes of communication, it has had wide application across the discipline. Google Scholar finds 10,500 citations for Entman's article; searching the *Communication and Mass Media Complete* database yields 4,100 articles and books with "framing" in their titles. Though the approach remains as fractured as Entman observed, this paper offers a template for theory-driven research that takes into account the transformation of communication by digital technology, in hopes the "ferments in the field" will match the ferment in the world.

A political communication approach to framing is our entry point as a way to understand deep divisions in the United States and other late-capitalist democracies. To this end, we revise Entman's (2004, 2012) cascading network activation model. The changes we propose here offer ways of thinking about the imbalances in discourse between the left and the right, the rise of hegemonic tech companies, and the possibility for civic participation in late-capitalist democracy. Our revised model plumbs a fundamental question for the discipline: how do people come to know and understand the world through the frames they receive, via mediated and other communication? We consider political communication in its broadest sense. For instance, when basic scientific facts are widely framed as conspiracies rather than enlightened consensus, it affects health and risk communication. Even more broadly, digitalization of networked framing processes significantly influences interpersonal, family, and organizational communication online and offline: how groups form, divide, open to new knowledge, and remain vulnerable to misinformation. The promise of networked society takes a dark turn as we question whether hoped-for flattening of communication hierarchies has occurred, particularly given the entrenched power of traditional elites, rise of new ones, and power of rogue actors. Overall, we implicate a political economy approach in critiquing the continued power of elites to influence the information system and address discipline-wide concerns about how communication could damage social cohesion.

We propose considering five important new digital "pump-valves" in the flow of political information and frames: platforms (e.g., Google, Facebook, Twitter), analytics (data about audience behavior), algorithms, ideological media (Fox, Limbaugh, Breitbart.com), and rogue actors (hackers, bots). The pump-valve metaphor, intentionally mechanistic, reflects how these new features can both enhance (pump) and diminish (valve) communication flows. Although these pump-valves are widely recognized, our contribution is a new integrated model suggesting how they work together and illuminating whether they democratize hierarchies of information control and political power or entrench dominant structures.

Remodeling frame distribution

Our vantage point is the United States, where empirical evidence confirms societal fracturing across multiple dimensions. If accompanied as we suggest by elite asymmetries, digitalization heightens opportunities for extremism and society-wide

fragmentation. Our revised model proposes the right-wing but not left-wing media ecosystem has reached digital maturity. In this environment, optimism about digital affordances seems premature.

According to Entman's previous cascade model, in the United States the hierarchy ran from the administration at the apex (president, White House, and cabinet agencies), to non-administration elites (Congress members and staffers, ex-officials, experts, lobbyists), to institutionalized mainstream media (journalists and news organizations reaching mass audiences and bound to norms of objectivity), to news texts (networks of framing words and images), and, at the bottom, members of the public, whose sentiments were imperfectly communicated to elites and media by such indicators as surveys. At each level, networks of association variously linked ideas, communicative symbols, and people. Although feedback loops existed and each level played some role in diffusing interpretive schemas, in this relatively simple hierarchy, ideas flowed mostly from top to bottom. Figure 1 shows a simplified cascade model condensed into its three primary (elite, media, public) levels and communication paths (labeled A, B, and C); note the comparatively unified public sphere featuring permeable partisanship.

Potentially, disruptive digital technologies could diversify and democratize the flow of frames. Yet their impact may also enable the spread of misinformation, polarize citizens, reduce social capital, and thereby undermine cooperative norms vital to democratic stability. Amplifying these concerns, economics incentivizes harnessing these technologies to maximize profit, not democracy. Power laws suggest that elites will still originate and shape the most widely-circulated frames, even those seemingly generated from the grassroots (Hindman, 2008).

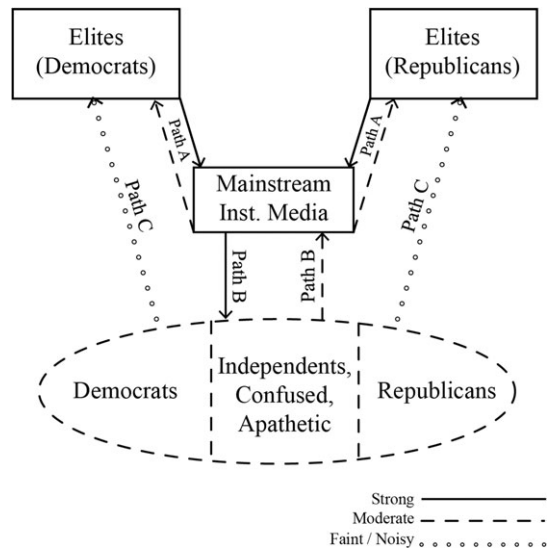

Figure 1 Original cascading network activation model.

Platforms

The existence of platforms for communicating and redistributing information is perhaps the single biggest change to the transfer of information among elites, media, and the public. Platforms include social media like Twitter, but also encompass Google, blogging software (e.g., Medium), news aggregators, wikis, and beyond. In simplest terms, platforms consist of software that hosts content originated by people besides the platform owner. Platforms are not impartial. Their content is constrained by platforms' particular characteristics: number of characters allowed; parameters governing selection and filtering; how each individual's social network is organized (Ellison & Boyd, 2014). Moreover, most platforms are profit-maximizing enterprises that exchange "free" services for valuable user data they repackage and sell.

Platforms allow elites to bypass institutional media by connecting directly to the public. Platforms like Facebook host much traditional media content, undermining their revenue and distribution systems. Particularly on the right, this trend has enabled symbiosis between elites' framing strategies and newer media whose business models emphasize coherent ideological narratives over objectivity. Moreover, platforms impose a temporal effect that degrades institutional media's gatekeeping capacity; elites disseminate messages via, say, Twitter, to the public and everyone else simultaneously, leaving journalists who formerly obtained news first chasing to catch up. This augmentation of simultaneity in political communication—enhancement of speed and efficiency—has mixed consequences for democracy. And at the public level, platforms provide citizens the capacity to engage with each other at scale, and directly with elites and media.

Algorithms

Much of what's delivered via platforms travels through algorithms: procedures for turning input into output based on a series of calculations and ordered steps (Gillespie, Boczkowski, & Foot, 2014). Although algorithms are created by people and responsive to human behavior, unlike social institutions that are similarly inscrutable to outsiders, algorithms are automated. They engage in autonomous decision-making about what should happen next, basing predictions on what happened before.

Once set, algorithms enforce a rigid series of step-by-step decisions that don't take into account the unpredictability, spontaneity, and pattern-breaking inherent to human thinking and behavior. After an algorithm learns to predict users' preferences, there's no way to tell it to start afresh. Every choice a user makes dictates the algorithm's decisions about future content. The only way for a person to reset an algorithm—for it to forget what it's learned about a person—is for them to start an account from scratch (a new Facebook, Google or Netflix account, for instance). As Eslami et al. (2015) explain, algorithms "exert the power to shape the users' experience and even their perceptions of the world." In this sense they acquire influence over frame distribution once largely monopolized by institutional media.

Digital analytics

Karpf (2016) explains digital analytics as "a cluster of technologies that allow organizations to monitor online sentiment, test and refine communications, and quantify opinion and engagement. These are *backend* technologies [hidden from users], viewed by professional[s] … and fashioned into strategic objects."

Through their measurable activities online, consumers provide those seeking influence with invaluable insights. Elites and media deploy proprietary analytic tools not only to understand who's receiving their messages but also to mine data about their audiences and selectively target users for customized advertisements and other appeals to think or behave in particular ways. With analytics, organizations can match the content individual citizens receive with precise data on their tastes, habits, worldviews, and purchases. Analytics may thereby enable more efficient exercise of top-down power over voters and consumers. News organizations now obtain instant, detailed feedback on which stories are most popular. Yet if that means softer news—fewer detailed policy stories that act as checks on elites—democracy is no winner.

Ideological media

Although ideological media don't necessarily ignore accuracy mandates, they do eschew objectivity. Their growth heightens segmentation and polarization of the common public sphere constructed by 20th century institutional media. Citizens can readily access ideologically-driven media messages unshackled by old norms of detached, quasi-scientific reporting and editing.

Importantly, marked asymmetry reigns among ideological media. Conservative elites conducted long-term campaigns to delegitimize mainstream media, helping create commercially-successful ideological outlets like Fox News, talk radio (Limbaugh, Glenn Beck), and such online platforms as Brietbart.com; they also enjoy better intermedia coordination than liberals, distorting algorithmic results in their favor (Rojecki & Meraz, 2016). Left-wing media outlets lack the audience loyalty, influence, dogmatism, and reach of their right-wing counterparts (Faris et al., 2017; cf. Bennett, Segerberg, & Knupfer, 2017). The 2016 election evidenced the maturation of a conservative media ecosystem efficiently spreading frames to followers who don't necessarily demand factual evidence. During the 2016 campaign, Breitbart received more traffic than CNN.com, and only 14% of Republicans reported trusting mainstream media, down from about 50% in 2002, before the conservative ecosystem reached maturity.

Rogue actors

Rogue actors are those acting outside norms that previously constrained the establishment media and political elites who dominated political communication. Technology-empowered hackers, "fake news" creators, and bots disrupt the news ecosystem. At best, hackers like Edward Snowden working outside the system may enhance government transparency. At worst, hackers align with state actors, intensify conspiracy theories, spread misinformation, and even influence election outcomes. Bots are programs

that perform automated, repetitive, routine tasks, such as providing customer service on a website chat. When bots combine with platforms like Twitter, they can fool people (and algorithms), spread disunity, and undermine collective action (as in the case of purportedly sexist Bernie Sanders trolls, largely inventions of Russian bots). So empowered, entirely baseless false information formatted like traditional news and sponsored by dishonest elites—fake news—enters the network cascade. Critically, fake news only works when its frames match audiences' schemas. Highly partisan citizens with low levels of trust in institutional media spread congruent frames along their (sometimes large) networks; vulnerability to these deceptions depends on the extent of motivated reasoning involved. Such 2016 hoaxes as Hillary Clinton's pizza parlor–based child abuse ring circulated widely among right-wing consumers of ideological media, and inspired a true believer to armed action. Norm-violating actors also employ bots to intimidate mainstream journalists and politicians; some reporters received death threats for anti-Trump stories, and some female candidates suffered verbal abuse.

Updating the cascade model

Figure 2 maps the hypothesized strength and direction of new communication pathways and networks since digitalization. This revised cascade model proposes guidance for conceptualizing and researching whether, how, and under what circumstances digitalized communication of frames actually redistributes power and enhances democracy. We suspect the impacts of the five pump-valves on cascading network activation leave the public more often recipients of frames from above than frame originators who compel elite attention to the grassroots. But only research can establish the actual networked communication pathways and impacts on power hierarchies.

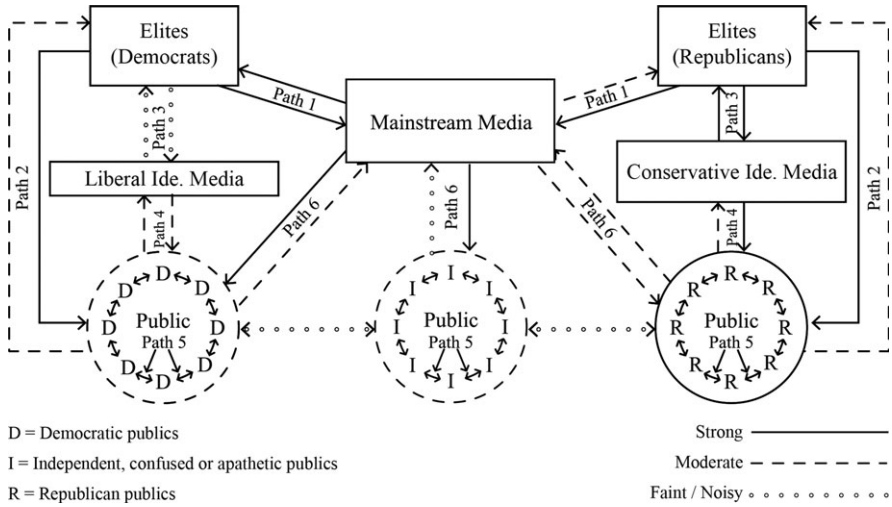

Figure 2 Revised cascade.

The updated cascade model assumes a heightened impact of economic incentives in the digitalized system, reinforcing content creation that efficiently gives people what they want. What democracy needs is another matter. At the media level (Path 1), platforms intervene between audiences and institutional news organizations, enfeebling legacy journalism's business model and disintegrating traditional news distribution systems. At the elite level, whereas the pre-digital pathway necessitated the flow of communication through traditional media, elites now disseminate their own messages or reinforce content from ideological media directly to the public on a heretofore unknown scale (@realDonaldTrump). Elites and publics can directly connect without intercession by mainstream media (Path 2), while strong networks (Paths 3 and 4) between ideological media, elites, and the public (particularly on the right) reflect and promote elite frames. And on the public level, there's the new capacity of citizens to engage each other (Path 5). Path 6, connecting mainstream media and the public, remains significant.

Platforms do weaken the connections—Paths A, B, and C in Figure 1—from traditional journalists to elites and publics, and bolster newer ideological media. However, as in the original cascade model, elites by and large still set in motion the framing process by controlling the information they share about their preferred and actual uses of power. Elites still can withhold and release critical information, shaping frames in traditional ways (speeches, press conferences, statements, photo opportunities, hearings, media events, leaks). The digital affordances might democratize influence over agendas, but for new suggestions from below to shape government action, administration and legislative elites must grant attention and affirmation. Notwithstanding their depleted control, institutional media still occupy the second rung of the cascade below the elites.

Differentiating left, center, and right networks—the core contrast with the single public sphere in Figure 1—reflects not just polarization but also digitalization, creating distinctive communication processes across the political spectrum. The solid lines denote strong communication paths; dashed lines, weaker paths; and dotted lines, faint, noisy paths. Space constraints limit explication of the multiple hypotheses implied in Figure 2, but we note that transformations inherent in the efficiency of digital communications seem to weaken some boundaries that existed under the domination of institutionalized media, while hardening others.

Some elites gain strength as distinctions between them and media blur (particularly among conservatives: e.g., Republican leadership and Fox News), yet boundaries between publics appear less permeable. Thus, we believe the conservative subsystem enforces tighter connections among elites, media, and publics than the less commercially successful liberal subsystem. Future research should probe the extent to which this means conservative publics are more manipulated by right-wing elites and/or conservative elites more constrained by right-wing publics. Strong ideological networks on the right may empower citizen adherents using Path 2 to enforce leaders' ideological purity. Yet if those same leaders earlier originated and transmitted distorting frames via Paths 2, 3, and 4, democracy isn't truly enhanced. We suspect this

diachronic dynamic contributes to Republican leaders rejecting traditional norms of partisan bargaining and compromise (Mann & Ornstein, 2016), fomenting gridlock. Dysfunctional government feeds public anger, communication networks polarize further, and democracy enters a downward spiral. In addition, rogue actors deliberately pollute Path 5 communication among citizens, along with Path 4 and 6 communication between media and the public, diminishing citizens' effective power to receive the quality information that enables enlightened collective action. Silverman, Strapagiel, Hamza, Hall, and Singer-Vine (2016) found "three big right-wing Facebook pages published false or misleading information 38% of the time … three large left-wing pages did so in nearly 20% of posts."

Implicated in these pathways across every level, though not all illustrated in Figure 2, are the pump-valves. In the updated cascade model, social and search platforms implement opaque algorithms that unpredictably distribute reporting about elite frames. This significantly shapes news choices, as journalists seeking to maximize traffic game algorithms by emphasizing or de-emphasizing stories and frames. Feedback from analytics, used to monitor audiences, often with the intent of maximizing clicks, may create incentives to diminish nuance and detail, thereby diminishing news quality, potentially weakening pressure on elites. Obsession with speed and churn in a 24/7 news environment further undermines institutional media's efficacy (Usher, 2014, 2016a, 2016b).

The same affordances can magnify elite power. Algorithms can enhance the efficacy of elite frames; on Facebook, those who engage with, say, pro-Trump frames continue to see more in that vein. Moreover, elites' use of micro-targeted marketing appeals can fortify this effect, as they exploit digital analytics in crafting campaigns and other political activities (Kreiss, 2016). The rise of firms like Cambridge Analytica suggests how analytics can help elites take advantage of platforms and algorithms to reinforce their influence on partisans and discredit opponents. Platforms also enable more efficient spread of misinformation by authorities less committed to democratic norms (e.g., Trump), and by even less norm-constrained actors.

Ideological media, emboldened by close relationships with elites, can trigger and amplify leaders' initiatives. Trump frequently derived Tweets from Fox News, Breitbart.com, and even conspiratorial, fact-challenged non-news outlets. Presidents can inject outright lies (e.g., Obama wiretapped Trump), activating faux scandals that preoccupy both Congress and the institutional and ideological media for weeks, resulting in more government dysfunction. Equally concerning, platforms' low barriers to entry enable actors posing as journalists to reach large partisan audiences. Anyone can create Facebook pages, Facebook live shows, and podcasts (Path 5). With algorithmic assists and elite amplification, efficiently partisan bubbles of misinformation expand. Digital analytics further enhance audience reach and economic returns; money, more than ideology, often motivates partisan websites. Unfortunately, even when institutional outlets attempt to discredit manipulative claims, corrective information can boomerang; partisans' false beliefs can actually strengthen when challenged by mainstream media (Flynn, Nyhan, & Reifler, 2017).

Beyond these filter-bubbles' impact on the public's opinions, vastly-expanded media choice online and offline, including video games and apolitical social media, may increase information gaps, spreading apathy and ignorance. These, in turn, disempower citizens hoping to use online efficiencies to organize collective action. Meanwhile, in accordance with the power laws inherent to Web traffic, hierarchy arises even within Path 5 networks; citizen debates cluster around a few leaders who set agendas but don't necessarily convert many people (Uitermark, Traag, & Bruggeman, 2016). The few public-originated frames that enter the larger cascade must gain elite sponsorship (and often reframing) for wider distribution. Any one citizen's social media postings will rarely be heard without a significant boost from elites and institutional or ideological media, whose voices remain most likely to activate and spread to mass audiences. Overall, the political economy of the Web suggests that ability to speak doesn't confer ability to be heard; moreover, citizens' ability to curate and share information does not necessarily result in a more informed electorate. All this means straightforward conclusions about the impact of digitalization on citizens' power remain problematic.

To be sure, digital technologies empower genuinely public spirited actors who adhere to truth and democratic norms, nurturing circulation of information and frames that challenge elite manipulation and power. When friends share content with like-minded contacts on their networks, it can amplify or challenge elite-originated frames. Present scholarship provides conflicting data to assess whether platforms heighten network polarization or simply reflect preexisting offline relationships and perspectives. It is certainly possible that in some cases, to some unmeasured (and because digitalization heightens simultaneity, unmeasurable?) extent, norm-constrained citizen networks operating across the ideological spectrum enhance elite responsiveness to better-informed public opinion. Yet, how much hierarchies have flattened remains uncertain. Given, for example, that pump-valves such as digital analytics enable micro-targeted messages, arguments that digital affordances empower the public to think or act more independently of elite influence must be balanced against evidence that the same mechanisms reinforce elites' manipulative capacities.

Conclusion

The 21st century has afforded quicker, more efficient communication directly from elites to citizens, precise feedback from citizens to news organizations and elites, and ready interaction among citizens. However, this has not clearly yielded more accountable government or lent the public more power over public policy. In some respects, the hierarchy of control might even be steeper, because elites have more precise ability to target and manipulate citizens. The operators of analytics, algorithms, and platforms largely deny responsibility for quality and accuracy of the frames they disseminate and profit from, thereby giving rogue actors and ideological media power to distort democracy. Furthermore, these forces have undermined the

economics of institutionalized, norm-constrained news. However sporadically, traditional journalism limited untrammeled elite power, upheld democratic ideals, and nourished a common public sphere.

Despite scholarly fears of appearing biased, the asymmetrically disintegrating public sphere hypothesized and modeled here demands genuinely empirical research, not false equivalencies. We also urge greater scholarly attention to the many consumers of mainstream media who don't yet rely on polarized content: the pluralities of citizens who eschew the poles, remaining independent, moderate, apathetic, or confused. What factors might motivate them to abandon institutional journalism in favor of ideological media or rogue communication? How do rogue actors move from the peripheries to the center? More broadly, scholars should research news production and consumption along all six pathways, though we caution against overreliance on "big data" and note the limitations of statistics when dealing with simultaneous relationships such as those discussed here. And researchers should balance optimism with recognition of history, culture, political economy, and structural inequalities.

Communication as a whole must reckon with the profound changes inherent in institutional media's diminished efficacy. How people communicate with each other in groups, families, and organizations, how people assimilate culture, how networks are structured and weighted, and how actors draw rhetorical power are profoundly impacted by digitalized media. On the bright side, these developments offer scholars a cornucopia of opportunities to enrich empirical understanding of and normative prescription for 21st century communication.

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