# Breaking the "Virtuous Circle": How Partisan Communication Flows Can Erode Social Trust but Drive Participation

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We examine how individuals' interactions with the shifting contemporary communication ecology—either by seeking information selectively from partisan sources or immersing themselves in a broad range of partisan communications — relate to shifting levels of social trust and online engagement. Using national panel surveys of young adults (i.e., millennials age 18–34) collected over the 2016 U.S. presidential election, we find that individuals' partisan communication flows—calculated by algorithmically combining patterns of news consumption, social media use, and political talk—explain: (a) polarized shifts in levels of trust towards people of other nationalities, religions, races, and ethnicities and (b) increases in levels of online political engagement. By elaborating the relationship between citizens' communication patterns and their levels of trust and participation, this research forces a reconsideration of theoretical traditions in the field of communication, especially those linking mass and interpersonal processes in the study of social capital.

**Keywords:** Communication Ecologies, Communication Mediation, Partisan News, Political Conversation, Political Polarization, Social Capital, Social Media, Social Trust

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In recent years, scholars have begun to challenge the claims that political conversation produces beneficial outcomes. Political talk, long seen as a source of community integration, a place for exposure to crosscutting viewpoints, and a mediator of news media influence on participation (Mutz, 2006), is increasingly characterized as echoing partisan media preferences and reinforcing ideological viewpoints at the expense of knowledge gain and social tolerance (Wojcieszak, 2011). Face-to-face and computer-mediated conversations with friends and family are understood as sites of this reinforcement, spurring engagement and participation against political opponents (Rojas, 2008). Indeed, recent theories of media influence in a shifting

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communication ecology contend that certain patterns of political conversation, especially when coupled with partisan news usage, may limit both awareness of opposing viewpoints and tolerance for disagreement, eroding trust while still driving participation (Shah et al., 2017).

Understanding the consequences of partisan selective exposure and conversational "echo chambers" for democratic life takes on increasing urgency in light of the erosion of social comity. While the contemporary communication ecology encourages participatory engagement, as perhaps evidenced by rising voter turnout since 2000, it also appears to polarize opinion and erode social and political trust (Van der Meer, 2017). Indeed, some scholars assert that "trust is collapsing" in Westernized democracies, with dire social consequences (Friedman, 2018) such as the destruction of the "virtuous circle" of social capital—the "tight reciprocal relationship between civic engagement and interpersonal trust" that is needed to sustain civil society (Brehm & Rahn, 1997, p. 1017). Social capital in societies with ethno-racial diversity relies on bridging forms of social trust that cross lines of difference (Stolle & Harell, 2013). If the contemporary communication ecology encourages participation but discourages social trust and cohesion among dissimilar groups, democratic functioning is diminished.

Past literature on mass communication has often considered news effects as channeled into political outcomes by interpersonal communication, typified by the communication mediation framework (e.g., Cho et al., 2009). However, this line of theorizing does not consider political outcomes beyond participation, due to its focus on engagement over questions of generalized trust. Further, news and talk have now converged into an amalgamated whole at the individual level, with social media as the foremost instantiation of this phenomenon, leading even proponents of this view to question this mediated structure (Shah et al., 2017). In the contemporary communication ecology, the order in which people encounter news and talk about politics can be inverted, with online exchanges setting the stage for news. Such convergence of news and talk has consequences for democratic functioning and civic engagement.

In this study, we examine whether individuals' active curation of their news and talk channels to either emphasize cloistered, partisan communication flows or immersion in a broader array of media and conversational flows (Thorson & Wells, 2015) is linked to different levels of social trust in dissimilar others and online forms of political participation. We test these relationships among a national panel study of young adults (millennials age 18–34), the generational cohort most embedded in the new communication ecology—either by seeking sources selectively or consuming communication omnivorously across the political spectrum when engaging news, social media, and political talk partners—are related to: (a) polarized shifts in levels of trust towards dissimilar others (people of other nationalities, religions, and races) and (b) increased levels of online political participation during the contentious 2016 U.S. presidential election. The relationship of millennials'

communication patterns with their levels of trust and participation has important implications for longstanding theoretical traditions in the field of communication, especially those linking mass and interpersonal processes in the study of social capital and civic life.

# **Literature Review**

This study draws on and contributes to the literature on selective news exposure in a hybrid, yet asymmetric media system. It also complicates past work by also considering partisan flows in social media and conversation. First, we anchor our study in the framework of a networked communication ecology that spans partisan news, digital platforms, and talk networks, rather than treating the effects of specific types of media or communication in isolation (e.g., social media vs. news media; see Toff & Nielson, 2018). Second, we consider the evidence for whether selective or omnivorous communication consumption patterns shift social trust in racial and ethnic minorities and influence online engagement. Third, we articulate our research question and hypotheses for testing with the national panel data of young adults, allowing deeper insights about temporal dynamics. By conceptualizing and operationalizing communication flows as encompassing news, social media, and interpersonal talk and performing lagged, concurrent, and fixed models with these measures, we look beyond cross-sectional relation-ships to consider over-time changes in interactions with the larger communication ecology during a very contentious election cycle.

## The Shifting Communication Ecology

Digital communication technologies have opened new avenues for information transmission in the communication ecology, leading to changes in media practices. In the contemporary communication ecology, actors and influence mechanisms from older and newer media co-exist and interact (Chadwick, 2013). With traditional media's growing reliance on digital audiences and weakened lines between producers and consumers, citizens are no longer passive receivers, but active participants in news production and distribution (Chadwick, 2013).

In the current networked communication ecology, media exposure is also more likely to be an expressive experience, and in that respect, a shared experience, where audience members interact with others, make comments regarding events on social networks, and amplify others' perspectives, all of which lead journalists to respond to these as signals of opinion (Chadwick et al., 2017). In addition, with increasing competition among news outlets, the news ecology has shifted to target niche audiences (Stroud, 2011) and reoriented toward political entertainment and infotainment options (Young & Tisinger, 2006). Targeting their partisan audiences, journalists often produce ideologically palatable stories and amplify extreme rhetoric (Iyengar & Hahn, 2009), which increases the likelihood that stories will be shared on social media (Hasell & Weeks, 2016). Given the convergence of content across modes and platforms, it is up to individuals to make sense of the information environment around them and create their own repertoire for consuming various modes of news and information.

The shifting ecology has therefore shaped the ways people engage with communication, understand politics, and decide to engage in subsequent actions. Simple reception within a limited choice set has been replaced by more active information seeking. This environment encourages selective, yet not entirely exclusive media exposure, and involves multiple curators—human and algorithmic—in the information structure (Thorson & Wells, 2015). As these trends continue, we expect a decline in the extent to which individuals encounter diversity by seeking information from a range of sources, engaging in crosscutting talk, and building heterogeneous online networks. Some citizens, who opt for more cloistered communication flows, construct a polarized understanding of issues and groups, largely in line with ideological imperatives, selectively distorting facts and targeting opponents (Shah et al., 2017). People are also mobilized through a web of connections and online network structures surrounding pluralistic issue publics (Bennett & Segerberg, 2012).

# **Consequences for Social Trust**

One potential consequence of the shifting communication ecology is widely divergent perspectives on civil society and social groups in society. Understanding and acceptance across different social groups are indispensable in modern societies with increasing cultural variability and global interconnectedness, as well as pressures from mass migration and religious differences (Stolle & Harrell, 2013). In a sense, trust in different social groups is also sociologically constructed, as properties of the communities and contexts that individuals are experiencing (Newton et al., 2018), yet also built on ideologically distinct moral foundations (Haidt, 2012). The current communication environment, which highlights the merger of mass and interpersonal communication across digital and social spaces, is an important structural factor that reinforces or undermines social trust across different groups, reflecting and reinforcing the cultural, social, and moral foundations of different partisan subgroups.

The dynamics explaining social trust in dissimilar others are complex. Liberals and conservatives interpret politics and policy through different lenses, resulting in distinct narratives when discussing topics like race, immigration, and religious tolerance (Haidt, 2012). Liberals emphasize caring for victims, freedom from repression, and fairness through political equality, whereas conservatives often counter these narratives by harkening to the maintenance of the social order, the rule of law, and adherence to tradition (Haidt, 2012). It is not surprising, then, that the right has often argued for a restrictive approach to immigration and opposed multiculturalism (Kundnani, 2012). In contrast, progressives have emphasized greater openness to immigration, racial integration, and social equality (Devos et al., 2002).

A sizable body of research also highlights how minorities, especially Blacks and Hispanics, are underrepresented as victims (Dixon, 2017; Neely, 2015) and

overrepresented as perpetrators in the news coverage (Dixon et al., 2003; Gilliam et al., 1996). This tendency toward "ethnic blame" coverage, linking people of color with the commission of crimes and social ills but otherwise marginalizing them (Romer et al., 1998), is especially pronounced on the right (Pelled et al., 2021). The convergence of news and talk, especially in digital spaces, increases the potential interplay of individual communication flows with partisan predispositions, likely working in tandem to shape social trust in people of other races, religions, and nationalities.

On one hand, the digital merger of mediated and interpersonal communication has afforded individuals with more accessible avenues to identify like-minded social clusters and to actively assess news and information consonant with their world views. In terms of networks of information, discussion, and action, we have seen increasing social and online sorting, with structural location and technological affordances shaping network homogeneity (Colleoni et al., 2014) in day-to-day life and in the networked online sphere. Vast literature focusing on Western democracies has documented that right-wing media and political elites emphasize populist and nationalist views (Benkler et al., 2018), evoke white identity rhetoric (Keskinen, 2013), and reinforce conservative Christian religious beliefs (Hmielowski et al., 2020). The discourse from the right, which proposes more restrictive immigration policies, likely deepened distrust of other nationalities and religions, and potentially other racial and ethnic groups. In this sense, it is likely that individuals on the political right who seek to further cloister themselves in like-minded communication flows will show greater social distrust toward dissimilar social groups. The opposite is likely true of those immersing themselves in left-wing discourses, which tend to emphasize inclusivity and fairness, especially as it relates to religious affiliation, national origin, race, and ethnicity (Haidt, 2012).

As noted above, this is not to say that individuals do not encounter oppositional perspectives at all (Nelson & Webster, 2017; Möller et al., 2018). Some individuals omnivorously consume whatever information is available, from cable networks, social media, and conversation networks, thus engaging in a wide range of viewpoints, spanning both liberal and conservative viewpoints (Edgerly, 2015), encountering information from across the increasingly networked media environment (Toff & Nielsen, 2018). While some people prefer to selectively expose themselves to likeminded partisan news (Feldman et al., 2014; Slater, 2007; Stroud, 2011), others prefer a range of cross-cutting partisan communication and information consumed in tandem (Garrett et al., 2014), with media omnivores actively using a wide variety of media sources and communication in communication flows across this networked ecology, spanning media types and ideology, invites more opportunities to encounter a wider range of diverse viewpoints (Knobloch-Westerwick & Johnson, 2014).

The implications of this immersion in partisan communication flows remain uncertain. A large body of literature has examined how news consumption and political conversation can result in more informed opinions and actions. Evidence shows that increased political diversity (e.g., having both liberals and conservatives in communication networks) enhanced political deliberation (Huckfeldt et al., 2004), reducing polarized attitudes toward candidates. On the other hand, studies also suggest that exposure to counter-attitudinal messages can heighten motivated reasoning and cognitive filtering (Taber & Lodge, 2006). Therefore, in today's networked communication ecology, where news media use and interpersonal conversations operate side-by-side, the question of whether partisans' omnivorous consumption of diverse communication flows shapes social trust remains open. Therefore, we offer the following hypotheses and research question:

H1: Liberals choosing more homogeneous than heterogeneous communication flows will be more trusting of people of other religions, nationalities, and races/ ethnicities.

H2: Conservatives choosing more homogeneous than heterogeneous communication flows will be less trusting of people of other religions, nationalities, and races/ethnicities.

RQ1: Will liberals and conservatives with greater immersion in communication flows (both politically homogeneous and heterogeneous) show more or less trust in people of other religions, nationalities, and races/ethnicities?

# **Consequences for Online Participation**

The conventional communication mediation model has suggested that informational uses of newspaper reading, TV viewing, and online news media use foster participation as their effects are channeled through the crucible of conversation, online and offline. However, communication networks, and the public's experience of them, have changed with the shifting news ecology. Many of the most active discursive communities are loosely organized around connective action networks, with these publics characterized by domain-specific knowledge, high information selectivity, and greater extremity and issue voting (Bennett & Segerberg, 2012). Online forms of political messaging are especially popular among young people, in combination with or independent from local conversational networks, and appear to drive extra-institutional activism, civic participation, and political engagement (Lee et al., 2013). Online expression and content sharing are preferred online political activities of young adults (Theocharis, 2011), as they also serve goals of self-presentation to their imagined audiences (Thorson, 2014). Studies show that mobilizing information from peers appearing on young people's news feeds encourages them to join community groups and take action (Leyva, 2017), suggesting that social media actions may shape offline participation (Kwak et al., 2018).

Along these same lines, seeing friends' political behaviors within like-minded social media networks influences political expression, information seeking, and voting behavior (Bond et al., 2012). Evidence also shows that behavioral outcomes are fostered within networks with high structural consolidation and homophily (Centola, 2015), suggesting civic action will be encouraged among those who engage with similar others. Much of the political communication literature suggests that selective exposure enhances political efficacy (Knobloch-Westerwick & Johnson, 2014) and increases the likelihood of campaign and political participation (Stroud, 2011). That is, partisans selectively embedded in like-minded communication flows may be more likely to be mobilized and participatory.

At the same time, overall immersion in communication flows suggests not only a greater likelihood of exposure to political information, but also diversity, including counter-attitudinal information (Knobloch-Westerwick & Johnson, 2014). Size, diversity, and frequency of engagement with communication networks have been closely tied to information-seeking behavior (Bello, 2012), the spread of new ideas and actions (Burt, 2004), and informed participation (McLeod et al., 1999). Larger, less homophilous social networks facilitate information provision (Granovetter, 1973) thus encouraging collective action (Barberá et al., 2015). Similarly, the size of the network is associated with participatory action (McClurg, 2006), suggesting greater immersion in communication flows stimulates participation.

Therefore, we contend that the nexus of news, social media, and interpersonal communication remains a potent force in driving participatory engagement among Republicans and Democrats, from voting behavior and civic volunteerism to political consumerism and, increasingly, online participation. Such online participation takes the form of sharing articles, memes, or videos about politics and commenting on or discussing political posts shared by friends (Lilleker & Koc-Michalska, 2017; Vissers & Stolle, 2014), much of it intended to organize and mobilize political action in a manner favored by young adults (Ekström & Östman, 2015). Accordingly, we offer the following hypothesis regarding online political participation:

H3: Liberals choosing more homogeneous than heterogeneous communication flows will engage in more online political participation.

H4: Conservatives choosing more homogeneous than heterogeneous communication flows will engage in more online political participation.

H5: Liberals and conservatives with greater immersion in communication flows (both politically homogeneous and heterogeneous) will engage in more online political participation.

#### Method

#### The Context of the 2016 U.S. Election

We examine the asymmetric networked communication ecology and its implications for trust and participation in the context of the 2016 U.S. election. During any U.S. presidential election, intentional or unintentional exposure to political information is widespread due to high interest and saturation coverage (Morris & Morris, 2013), but

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this election was unusual even by U.S. standards. The reason: This election involved Donald Trump, a candidate who courted controversy and gained attention in the news media agenda by actively embracing social media and energizing his followers, fully leveraging the hybrid media system (Wells et al., 2016).

The mainstream media's responsiveness to a range of candidates' activities, especially their efforts to generate attention over social media, shaped coverage over the election cycle (Wells et al., 2020), but the structural asymmetry in the partisan media landscape amplified different political message flows along party lines. For instance, analyses reveal left-leaning and centrist media outlets focused on criticism and evaluation of both candidates' policies and personas, whereas those on the right amplified pro-Trump messages and adjusted their issue-agendas on immigration, jobs, and trade to align with the GOP nominee (Benkler et al., 2018). Relatedly, campaign rhetoric from Trump encouraged such tendencies, as demonstrated by distinct populist appeals against people of different nationalities, religions, races, and ethnicities and his embrace of anti-elitist and nationalist positions (Oliver & Rahn, 2016). The contentiousness of this contest and the vehemence of the xenophobic discourse, which mirrors other increasingly bitter populist campaign battles across the globe, demands a deeper investigation into how individuals' interactions with asymmetric networked communication ecologies shape trust and participation over the course of a disputed election.

### **Communication Flows**

Theorists and researchers have long focused on how different communication types, both mediated and interpersonal, are related to one another, thus contributing to community integration and civic engagement. The communication mediation model, for example, suggests a mediating role of political talk between news use and participation, where news media content provides the raw material for political conversation, with individuals using exchanges with others to interpret and make sense of media, encouraging civic and political engagement through the crucible of online and offline talk (e.g., Cho et al., 2009).

However, in the contemporary communication ecology, news and talk should be considered to have a more interdependent, mutual, and reciprocal relationship (Shah et al., 2017) rather than political talk being driven by news media use. Media exposure tends to be expressive and interactive, and this is particularly true for younger generational groups, who grew up as digital natives heavily immersed in social and mobile media. We advance the view that individual choices to engage with news media outlets, political news on social media, and political talk partners, collectively, shape their communication flows—i.e., the volume and variety of political information that makes it way to them based on those decisions. Each choice provides an opportunity for homogeneous or heterogeneous interactions, just as each one offers an opportunity to encounter more or less political information. For example, one individual might be omnivorous in their consumption of broadcast and print news media content, using a range of partisan media outlets, but also have very homogeneous social media and conversational networks that they engage with frequently (i.e., a somewhat selective and quite immersive communication flow). Conversely, another individual might avoid news media and have a social media and conversational network that is more diverse but less active politically, meaning a limited pool of partisan exchanges (i.e., a less selective and immersive communication flow).

We, therefore, anchor our understanding of communication flows to the networked communication ecology that attends to patterns of use of news media, social media, and political talk, in combination, rather than segregating the effects of specific types of media (e.g., social media vs. news media) in a manner that runs counter to their mode of consumption and experience. We then link individual communication flows within the asymmetric networked communication ecology to important political outcomes—social trust and participatory engagement—properties integral to social capital and society's democratic functioning.

#### Data

To test our hypotheses and address research questions, we used data from a panel study of millennials age 18–34, collected by the polling firm GfK. This two-wave U.S. national panel survey was conducted around the 2016 Presidential election. The survey used a sample from KnowledgePanel, a probability-based web panel representative of the United States, which included an oversample of racial and ethnic ensure adequate representation of these groups. The first wave was conducted from September 21 to October 3, 2016, and included 1,603 respondents, reaching the response rate of 31%. The second wave was collected from December 6 to December 15, 2016, with 1101 original respondents completing the questionnaire for the retention rate of 70%. Participants received a cash-equivalent gift of \$5.00.

#### Measures

#### Communication Flows

Following our conceptualization on the networked nature of communication flows in the communication ecology characterized by partisan asymmetry, we constructed two types of communication flow variables encompassing news, talk, and social media consumption: first, for partisan selectivity, we created a *net* communication variable that indicates the relative homogeneity to heterogeneity in partisan communication flows, and second, for immersion of communication flows, we created a *total* partisan communication variable that combines both homogeneous and heterogeneous communication flows. Both measures were constructed within partisan groups, allowing us to assess the role of communication while accounting for partisanship (see Supplementary Appendix I for descriptive information). Breaking the "Virtuous Circle"

We first identified the nature of respondents' news media use, political talk, and social media use patterns. For each Democratic and Republican, including leaners, homogeneous communication flows were determined by combining the level of partisan media usage aligning with their political views, engagement in agreeable political conversation, and agreeable social media use. Similarly, heterogeneous communication flow consisted of the level of partisan media use that did not align with their political views, engagement in disagreeable political talk, and disagreeable social media use. For example, for those who identified as a Democrat (including leaners; N = 586), a homogeneous communication flow was created by averaging the answers to the following questions: "During the past week, how often did you read news with a *liberal* perspective (e.g., MSNBC, Daily Kos, Slate, Talking Points Memo)?" (scale of 0 to7); "During the past month, how often did you talk about the election or politics with people who agree with you?" (scale of 1 to 5); "During the past month, how often did you agree with the political content or opinions your friends post on social media?" (scale of 1 to 5; Cronbach's  $\alpha = .67$  for W1, Cronbach's  $\alpha = .71$  for W2<sup>1</sup>) Democrats' heterogeneous communication flow was constructed by averaging the following questions: "During the past week, how often did you read news with a *conservative* (e.g., Fox News, Breitbart, Rush Limbaugh, Daily Caller) perspective?" (scale of 0 to 7); "During the past month, how often did you talk about the election or politics with people who *disagree* with you?" (scale of 1 to 5); "During the past month, how often did you *disagree* with the political content or opinions your friends post on social media?" (scale of 1 to 5; Cronbach's  $\alpha = .58$  for W1, Cronbach's  $\alpha = .61$  for W2). Due to a variance in scales, the items were first standardized then averaged to construct a single index of a homogeneous or heterogeneous communication flow. The records of opposing partisans and independents (N = 62) were included as zero. Republicans' (including leaners; N = 419) homogeneous communication flow (Cronbach's  $\alpha = .64$  for W1, Cronbach's  $\alpha = .66$  for W2) and heterogeneous communication flow (Cronbach's  $\alpha = .60$  for W1, Cronbach's  $\alpha = .61$  for W2) were created in a similar way.

We used these two components in our algorithmic assessment of each partisan's net and total partisan communication flows. For the net communication flow, which is the degree of engagement in homogeneous communication relative to heterogeneous communication, we subtracted heterogeneous communication flow from homogeneous communication flow for each partisan group. Net communication flow is represented mathematically as follows:

$$\begin{split} \text{NetCommFlow}_{(t)} &= \text{HomogeneousCommunication}_{(t)} - \\ & \text{HeterogeneousCommunication}_{(t)} \\ &= (\text{Like-mindedPartisanMedia}_{(t)} + \text{AgreeableConversation}_{(t)} + \\ & \text{AgreeableSocialMedia}_{(t)}) - (\text{CrosscuttingPartisanMedia}_{(t)} + \\ & \text{DisagreeableConversation}_{(t)} + \text{DisagreeableSocialMedia}_{(t)}) \end{split}$$

where *t* denotes each time point.

The total partisan communication flows variable was created by summing up the homogeneity and heterogeneity of partisan communication flows, representing the intensity of overall partisan communication flows. In other words,

 $TotalPartisanCommFlow_{(t)} = HomogeneousCommunication_{(t)} + HeterogeneousCommunication_{(t)} \\ = (Like-mindedPartisanMedia_{(t)} + AgreeableConversation_{(t)} + AgreeableSocialMedia_{(t)}) + (CrosscuttingPartisanMedia_{(t)} + DisagreeableConversation_{(t)} + DisagreeableSocialMedia_{(t)})$ 

where *t* denotes each time point.

The correlation between net communication flows in W1 and W2 was .52 (p < .001) among Democrats and .39 (p < .001) among Republicans. The corresponding value for total communication flows between W1 and W2 was .60 (p < .001) among Democrats and .61 (p < .001) among Republicans, suggesting considerable stability in communication flows, albeit with some variability. In contrast, for each wave, net and total communication flows showed low correlations; r = .09 p < .01 for Democrats in W1 and r = .07, p < .05 for Democrats in W2, r = .05, p > .05 for Republicans in W1 and r = .08, p < .01 for Republicans in W2, suggesting that being selective in communication consumption is quite distinct from being immersive.

# Social Trust

Respondents also evaluated their overall trust in different social groups on a 5-point scale (1 = distrust completely, 5 = trust completely), including (a) people of other religions, (b) people of other nationalities, and (c) people of other races/ethnicities. An index of social trust was created by averaging these scores (Cronbach's  $\alpha$  in W1 = .87; W2 = .89).

#### **Online** Participation

Respondents answered the frequency of (a) sharing an article, photograph, or video related to political or social issues and (b) commented on or discussed news articles (Lilleker & Koc-Michalska, 2017; Vissers & Stolle, 2014). Responses were measured on a 5-point scale (1 = Never, 5 = Often; correlation in W1 = .70; W2 = .75).

#### Political Orientations

We considered several political orientations as controls in the models. Literature suggests that political interest (Prior, 2019), strength of partisanship (Klar et al., 2018), and ideological extremity (Rodriguez et al., 2017) are strong predictors of ideologically consistent political attitudes as well as political engagement. We measured political interest by asking, "In general, I am interested in politics and national government" (M = 3.36, SD = 0.95). The strength of partisanship was created by using party identification item such that 3 = strong partisans, 2 = not strong partisans, 1 = leaners, 0 = independents (M = 1.77, SD = 0.93).

Ideological extremity was also controlled (4 = extremely liberal or conservative, 3 = liberal or conservative, 2 = slightly liberal or conservative, 1 = moderate, M = 2.17, SD = 1.03).

#### Demographics

Basic demographic variables were controlled in the models, including gender (47.1% females), age (M = 27.43, SD = 4.43), race (62.3% whites), education level (operationalized as highest degree received; Mdn = Associate degree), and house-hold income (Mdn = \$50,000- \$59,999). Given our sample of millennials, these numbers are consistent with population parameters in comparable RDD studies (Taylor & Keeter, 2010).<sup>2</sup>

#### **Baseline Association in W1**

We examine the baseline relationship between communication flows and our key dependent variables, online participation and social trust, using W1 cross-sectional models. We do so because we recognize the strength of partisanship predicts homogeneity of communication flows, stronger and ideologically consistent political attitudes, and greater political engagement. These must be accounted for prior to testing models of change in these outcomes between W1 and W2. In the baseline models, each partisan's total (i.e., the overall intensity of partisan communication) and net (i.e., relative homogeneity in communication) communication flows at W1 were entered as separate independent variables, along with demographics, political interest, strength of partisanship, and ideological extremity as controls.

In W1, for social trust, Democrats' net homogeneity of communication flow in W1 was positively linked to the index of social trust (b = .18, SE = .06, p < .01), indicating that Democrats' with more liberal communication diets exhibited a higher level of trust toward people of other religions, nationalities, and races and ethnicities. Neither partiant total communication flows nor Republicans' net flow was related to social trust in W1.

In addition, Democrats' and Republicans' total partisan communication flows were positively associated with a higher level of online participation (b = .47, SE = .02, p < .001 for Democrats; b = .41, SE = .03, p < .001 for Republicans). In other words, prior to the election, it was the overall flow of communication that was positively associated with online participatory behaviors, rather than the net communication flow.

#### Analytic Strategy

Using the full panel data, we first regressed the W2 variable on its W1 counterpart, given the considerable stability in these measures, thus creating residuals of each variable. We then examined two sets of regression residuals models: (a) *lagged residuals models* that predicted the residuals of the dependent variables from W1 values of communication flows (total and net for each partisan group), which assessed how the pre-election values explain changes in social trust and online participation

over time, and (b) *concurrent residuals models* that predicted the residuals of dependent variables from residuals of communication flows (total and net for each partisan group), which allowed us to identify the association of aggregate changes of our key study variables over time. Additionally, we also conducted *fixed effects models*, using a raw difference score between W1 and W2 for each partisan's total and net communication flows variables to examine estimates of intra-individual changes during the election period. Tests of hypotheses examine all of the models for social trust and online participation.

#### Results

#### Lagged, Concurrent, and Fixed Effects Models of Social Trust

Using the lagged model, we first examined how young adults' prior engagement in communication flows in W1 was associated with the *change* in social trust between W1 and W2, as reflected in the residuals. We considered total and net communication flows in the same model, accounting for both the intensity of partisan communication flows and the degree of homogeneous over heterogeneous communication. According to the results (see Table 1), for the combined index of social trust, Democrats' total and net communication flows in W1 were associated with positive change in trust toward dissimilar social groups; Democrats who were heavy consumers of partisan communication or engaged with a more liberal perspective prior to the election exhibited an increase in social trust toward dissimilar others over the course of the general election. For Republicans, on the other hand, their prior communication diet in W1, both total and net, were not associated with a change in social trust over time.

We further ran the analysis with decomposed social trust measures—trust in people of another religion, nationality, and race or ethnicity—in order to examine the relationships with trust in specific social groups. Democrats' total and net communication flows in W1 were positive predictors of trust in people of other religions and nationalities. Greater immersion in partisan communication flows as well as grounding in liberal communication flows in W1 were associated with increased trust toward these dissimilar others over the election cycle.

We next conducted the concurrent residuals model to examine how changes in total and net communication flows among partisans predicted changes in social trust over the course of the election. For both Democrats and Republicans, changes in net communication flows were significantly associated with changes in the level of social trust (see Table 2). Democrats with more liberal communication flows were linked with increased trust in dissimilar social groups over the election. For Republicans, the opposite was true, as their move into more ideologically homogeneous communication reduced trust in dissimilar others. On the other hand, the residuals of total partisan communication flows for each partisan group did not predict social trust.

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Trust	
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Model	
. Lagged	00
Table 1	

People of other races/ethnicities
People of other nationalities
People of other religions
Combined social trust

			•	\$	-		-	
	Estimates	SE	Estimates	SE	Estimates	SE	Estimates	SE
(Intercept)	$-0.39^{*}$	0.18	-0.32	0.20	$-0.52^{*}$	0.20	$-0.46^{*}$	0.20
Age	-0.01	0.00	$-0.01^{*}$	0.01	-0.00	0.01	-0.01	0.01
Education level	$0.04^{**}$	0.01	$0.05^{**}$	0.01	$0.05^{**}$	0.01	$0.04^{**}$	0.01
White	$0.10^{*}$	0.04	0.07	0.05	$0.11^*$	0.05	0.10	0.05
Female	0.06	0.04	0.03	0.05	0.07	0.05	$0.10^{*}$	0.05
Income	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01
Political interest	-0.00	0.02	0.01	0.03	0.00	0.03	-0.01	0.03
Partisan strength	-0.00	0.03	-0.00	0.03	0.02	0.03	-0.01	0.03
Ideological extremity	0.00	0.02	0.00	0.02	-0.00	0.02	0.02	0.03
Total communication flows								
Dem total communication in W1	$0.06^{**}$	0.02	$0.07^{**}$	0.02	0.04	0.02	$0.07^{**}$	0.02
Rep total communication in W1	0.02	0.02	-0.02	0.03	0.04	0.03	0.04	0.03
Net communication flows								
Dem net communication in W1	$0.14^*$	0.06	$0.14^{*}$	0.06	$0.21^{**}$	0.07	0.10	0.07
Rep net communication in W1	0.06	0.08	0.04	0.08	0.05	0.09	0.09	0.09
N	993		966		966		1002	
Adjusted $R^2$	0.043		0.037		0.038		0.041	
p < .05 $p < .01, $ $p < .01, $ $p < .001,$ <i>Note.</i> The dependent variables are residualized variables after regressing social trust in W2 on its W1	<i>Vote</i> . The depe	ndent var	iables are residu	alized var	iables after regress	ing social tru	ast in W2 on its W1	
	-				c	c		

à þ 4 4 r counterpart.

#### Breaking the "Virtuous Circle"

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Trust
Social
Predicting
Model
Concurrent
Table 2.

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	Combined social trust	cial trust	People of other religions	religions	People of other nationalities	ationalities	People of other races/ethnicities	races/ethnicities
	Estimates	SE	Estimates	SE	Estimates	SE	Estimates	SE
(Intercept)	$-0.59^{**}$	0.17	$-0.49^{*}$	0.19	-0.78	0.20	$-0.63^{**}$	0.20
Age	-0.01	0.00	-0.01	0.01	-0.00	0.01	-0.01	0.01
Education level	$0.04^{***}$	0.01	0.05***	0.01	$0.05^{***}$	0.01	$0.05^{**}$	0.01
White	$0.10^{*}$	0.04	0.07	0.05	$0.11^*$	0.05	0.10	0.05
Female	0.06	0.04	0.03	0.05	0.08	0.05	$0.10^{*}$	0.05
Income	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01
<b>Political interest</b>	0.03	0.02	0.03	0.03	0.04	0.03	0.03	0.03
Partisan strength	0.01	0.02	0.01	0.03	0.03	0.03	-0.01	0.03
Ideological extremity	0.03	0.02	0.01	0.02	0.01	0.02	0.03	0.03
Total communication flows								
Dem total communication	0.03	0.02	0.02	0.03	0.00	0.03	$0.07^{*}$	0.03
Rep total communication	-0.03	0.03	-0.03	0.03	-0.02	0.03	-0.04	0.03
Net communication flows								
Dem net communication	$0.15^{**}$	0.06	$0.20^{**}$	0.06	0.11	0.06	$0.15^{*}$	0.07
Rep net communication	$-0.23^{**}$	0.07	$-0.31^{***}$	0.08	$-0.26^{**}$	0.08	-0.13	0.08
Ν	993		966		966		1,0	1,002
Adjusted $R^2$	0.047		0.046		0.037		0.0	0.043
*+ / U5 *+ / U1 *** /	001							

\*p < .05, p < .01, p < .001. Note. The dependent variables and partisan total and net communication variables are residualized variables, after regressing W2 variables on W1 counterparts.

#### Breaking the "Virtuous Circle"

When looking at specific targets of social trust by disaggregating our index, we confirm the core patterns. Democrats who cloistered themselves in increasingly liberal communication flows also increased their trust toward people of other religions and other races/ethnicities. For Republicans, those who became more embedded in conservative communication flows exhibited a decreased trust in people of other religions and other nationalities. Total partisan communication flow was positively associated with higher trust in people of other races/ethnicities among Democrats, suggesting salutary effects on certain types of trust when exposed to more communications.

Our results of the fixed effects model reveal a similar pattern. For Republicans, changes in net communication flows toward more homogeneous views lowered trust in people of other religions (b = -.23, SE = .09, p < .01) and other nationalities (b = -.21, SE = .09, p < .05). In contrast, changes in net communication flows among Democrats were positively linked with increased trust in people of other races (b = .16, SE = .07, p < .05; see Supplementary Appendix II for full details). Overall, results from lagged, concurrent models, and fixed effects models support H1 and H2. For RQ1, it appears that greater overall immersion in partisan communication flows fortifies social trust among Democrats but not among Republicans.

# Lagged, Concurrent, and Fixed Effects Models of Online Participation

We conducted parallel analyses predicting the level of online political engagement. Our lagged residuals analysis revealed that Democrats' total partisan communication flows in W1 were positively associated with residuals of online participation while Republicans' communication flows —both total and net—were not (see Table 3). This suggests that change in online participatory behaviors is not a function of immersion in political communication for Republicans, but may be for Democrats, for whom partisan communication flows predicted more online political engagement.

According to the concurrent model, which examined the aggregate-level changes in online participation as a function of total and net communication flows (see Table 3), for both Democrats and Republicans, residuals of total partisan communication flows were positive predictors of residuals of online participation, suggesting that the increased immersion in partisan communication flows predicted increased level of online participation. Changes in Democrats' and Republicans' net communication flows (i.e., shifts in relative homogeneity) were not associated with the change in online participation, indicating the factors that are distorting social trust are not the same ones that are driving participatory action. Additionally, the fixed effects model reveals a consistent pattern where increases in total partisan communication flows for both Democrats and Republicans were positively associated with a rise in online participation (b = .36, SE = .03, p < .001 for Democrats, b = .34, SE = .03, p < .001 for Republicans; see Supplementary Appendix II for a full table). In sum, greater immersion in partisan communication flows was Downloaded from https://academic.oup.com/hcr/advance-article/doi/10.1093/hcr/hqab015/6400637 by guest on 19 October 202

nline Participation
Model Predicting O
and Concurrent Model Pr
Table 3. Lagged

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		Online Participation	pation		
Lagged Model	F		Concurrent Model	nt Model	
	Estimates	SE		Estimates	SE
(Intercept)	$-0.42^{*}$	0.21	(Intercept)	-0.12	0.17
Age	0.00	0.01	Age	-0.01	0.00
Education level	-0.00	0.01	Education level	0.01	0.01
White	-0.09	0.05	White	-0.03	0.04
Female	0.03	0.05	Female	0.07	0.04
Income	-0.00	0.01	Income	-0.00	0.01
Political interest	$0.08^{**}$	0.03	Political interest	$0.05^{*}$	0.02
Partisan strength	$0.08^{**}$	0.03	Partisan strength	$0.06^{*}$	0.02
Ideological extremity	0.02	0.03	Ideological extremity	-0.01	0.02
Total communication flows					
Dem total communication in W1	$0.05^{*}$	0.02	Dem total communication	$0.37^{***}$	0.02
Rep total communication in W1	0.05	0.03	Rep total communication	$0.42^{***}$	0.03
Net communication flows					
Dem net communication in W1	-0.06	0.07	Dem net communication	-0.03	0.06
Rep net communication in W1	-0.10	0.09	Rep net communication	0.08	0.07
Ν	677		Ν	677	
Adjusted R <sup>2</sup>	0.035		Adjusted $R^2$	0.319	
$p_{p}^{*} p < .05, p_{p}^{*} < .01, p_{p}^{*} < .001.$					

p < .05, \*p < .01, \*p < .001.

Note. The dependent variables are residualized variables after regressing online participation in W2 on its W1 counterpart. Partisan total and net variables in the concurrent model are residualized variables.

#### Breaking the "Virtuous Circle"

significantly associated with the change in participation for both Democrats and Republicans, but pre-election levels of total partisan communication flow only appear to be mobilizing for Democrats, providing some support for H5, but not H3 and H4.<sup>3</sup>

It should be noted that the adjusted  $R^2s$  ranged from 3.5% to 5.9% for most of the models on social trust and online participation. While the variance in participation and trust explained by communication flows is not large, it must be recognized that these metrics do not account for the variance explained by W1 variables used to create the residuals used in our models. As shown above, participatory patterns and trust judgments are generally stable and unlikely to change markedly within a short period. Within this context, even small changes are meaningful. Moreover, given that these analyses focused on young adults, trust judgments may have less variability and more stability within a constrained sample. Additionally, we tested supplementary models to validate the contributions of each component of our communication flows—news media use, political talk, and social media use. Our findings with alternative communication flow variables show weaker and fewer significant relationships, suggesting the confidence in the construction of the communication flows variables (see Supplementary Appendix III).<sup>4</sup>

# Discussion

This study examined how individuals' interactions with the asymmetric networked communication ecology that characterized the 2016 U.S. presidential election cycle—either by seeking information selectively from partisan sources aligning with party identification or immersing themselves in a broad range of partisan communication flows-relate to differing levels of social trust in dissimilar others and online political engagement over the course of the content. Understanding the relationship between partisan communication patterns and social trust takes on greater urgency in light of the erosion in civil society we saw in the wake of the 2020 U.S. presidential election, and other moments of civic fracture that increasingly characterize our politics. We find clear evidence that immersion in overall partisan communication flows encourages participatory engagement, while selectivity in like-minded communication flows polarizes judgments about social trust directed toward people of other nationalities, religions, races and ethnicities. Although it appears these relationships are centered on different sets of young people, the finding that millennials in the United States are driven to higher levels of participation but are growing increasingly polarized in their social trust is deeply troubling for a society that is only growing more diverse and multicultural.

Our analyses ask how total partisan communication flows (i.e., the immersion in overall partisan communication flows, including homogeneous and heterogeneous content) and net partisan communication flows (i.e., relative consistency with party alignment in communication flows) are related to social trust and online participation. By testing these questions among a representative panel data from young adults, collected before and after the 2016 U.S. general election, using lagged, concurrent, and fixed effects models given use confidence in these findings. Building upon prior studies that the selective approach to congenial communication has important implications for political polarization (e.g., Garrett et al., 2014), we further expand to show that increasing homogeneity in communication flows is related to polarized trust in people of others national, religions, races, and ethnicities along the party lines. Our findings also show that the overall immersion in communication flows explained a higher level of online participation, the mode of engagement preferred by millennials and often a gateway to offline forms of engagement.<sup>5</sup>

Specifically, net and total partisan communication flows for Democrats prior to the election predicted positive change in social trust in dissimilar others. This suggests that pre-election communication flows buffered this group against the erosion of social trust that occurred over the campaign, potentially even generating a backlash against such sentiments encountered in conservative communication flows. This was not true for Republicans, indicating the asymmetrical impact of partisan communication flows established during the primary period on judgment toward dissimilar social groups throughout the election.

Further, young Republicans who cloistered themselves in increasingly consistent communication flows, even after accounting for ideologically inconsistent communication flows, became less trusting of those of other religions and nationalities, in contrast with growing social trust toward them among young Democrats who sought more ideologically consistent communication. This reveals considerable asymmetry in partisan communication flows during the election, with the like-minded views circulating among conservatives during the general election eroding trust in people of other religions and nationalities, altering the base of support for those of other races and ethnicities. This is likely a function of the 2016 rhetoric, with Trump emphasizing anti-immigrant, anti-Muslim, and nationalist views (Oliver & Rahn, 2016).

We ask a normative question about the extent to which our contemporary communication ecology sustains and reinforces democratic norms, such as social cohesion. The linkages between the information environment, social trust, and participation speak to a strain on our social fabric. Civil society cannot flourish without the "virtuous circle" of participation and trust (Putnam, 1995), especially social trust in individuals unlike us (Brehm & Rahn, 1997).

Our study shows a nuanced and complicated picture of how partisan groups experience unequal and asymmetric consequences of selective communication flows on social trust. The suggestion that our increasingly polarized communication ecosystem is alternately eroding social trust on the right, while still sustaining participation is disturbing in terms of its long-term consequences for civil society. At the same time, the increase of social trust on the left in our results may only show one fraction of the picture; liberals have social and political groups they view with apprehension too, such as police officers, evangelical Christians, or white nationalists. Future research must consider whether trust in liberal targets is similarly shaped by communication flows.

It should be also noted that the shifting communication ecology has invited "dark participation" (Quandt, 2018), calling for a more nuanced understanding of what constitutes online participation and what implications they bring. Research has noted the destructive forms of online participation such as trolling (Cheng et al., 2017), online hate (Awan, 2014; Chetty & Alathur, 2018), and online incivility (Coe et al., 2014), which often extend to offline spaces, especially within political extremists or far-right movements in the United States and Europe (MacFarquhar, 2021; Vieten & Poynting, 2016). When coupled with the fact that fake news diffuses more rapidly through social media than factual information, engaged activism may be grounded in misinformation or disinformation (Vosoughi et al., 2018) and inextricably linked to misinformation or disinformation sharing (Valenzuela et al., 2019). In that sense, our findings that immersion in partisan communication flows is more related to online participation can have nuanced implications for democracy, not all of which are salutary. News outlets, platforms, foundations, and academics should work towards sustaining an engaged citizenry that is vibrant and active, while not stimulating destructive participation.

The fact that this was observed within a national sample of young adults is even more troubling, given they are the future political polity. Young generations tend to interact with multiple platforms and sources actively in the contemporary highchoice environment (Edgerly, 2015), accompanied by the shift in values toward self-expression and creativity (Theocharis, 2010). Taking full advantage of the communication hybridity, they are provided with ample opportunities to learn about political events and shape their attitudes. We call for more in-depth scholarly attention to young adults' media repertoires and political practices for the future of vibrant democracy and inclusive society. Also, while we specifically looked at the millennial generation, how these young adults' media habits will evolve over time is an open question. Given that older adults have increasingly adopted technology in recent years (Vogels, 2019), it is likely that millennials in the future remain actively engaged in the networked communication ecology. Nonetheless, it will be interesting to empirically examine the generational effects of communication ecology in a more longitudinal cohort study.

In this study, we specifically focused on the U.S. electoral context. While our study provides a unique context—in the sense that the level of polarization in the United States is among the highest among Western democracies (Fletcher et al., 2020) and that the 2016 election was one of the most unconventional, divisive, and unpredictable elections in the U.S. history—the issue of social distrust and increased divides among citizens extends well beyond the single country context. Ethnocentric, xenophobic, and populist rhetoric have surged in many Western countries and parts of Asia (Kaul & Vajpeyi, 2020), often accompanied by exclusivism, political violence, and radical immigration and border control policies. Also, the surge of populist rhetoric and political appeals against social integration continued during the Trump administration, even outside the electoral context. Given the generalizability of the communication mediation model (Gil de Zuniga et al., 2019), we also

expect the general tendencies of how communication polarizes trust in different social groups and drives online participation would provide significant implications for other parts of the world and non-electoral contexts. Nonetheless, we encourage future research to examine this dynamic in a comparative context to document whether these findings can be generalized across different countries.

Of course, our results rely on self-reported measures of communication flows that should be tested with observational data. Future work should examine not only whether these survey measures align with actual communication patterns, but also whether self-reports provide insights about yielding to message effects beyond simple message reception gauged in most observational studies, for as McGuire (1972) theorized, reception and yielding may be inversely related among partisans. Moreover, trust extends beyond groups of people to include political and social institutions such as the news media, the military, research universities, labor unions, large corporations, the courts, and the presidency. Institutional legitimacy is under attack (Van der Meer & Thompson, 2017), and just as breaking the "virtuous circle" of social capital spells danger for civil society, so does the erosion of confidence in major institutions. Declines in institutional legitimacy and social trust across a broader swath of the citizenry would suggest an even greater cause for concern and indicate a larger warning sign of democratic instability.

In addition, we limited our attention to partisan communication flows. Despite the significance of partisan communication, many people also diversify their sources of information through seemingly neutral or non-partisan sources (Dempsey et al., 2021). However, as self-reported surveys provide more insights beyond simple message reception, our measures are capable of capturing perceptions of how people interact with partisan communication flows, regardless of the nature of content. We hope future studies build our findings and show how other communication patterns such as non-partisan communication flows or direct elite communication contribute to the formation of social trust and participation.

The shifting structure of the communication environment demands updating new methodological and conceptual approaches to engagement and community integration. We show that the overall immersion in partisan communication flows is associated with more participation while increasing homogenous communication diet relates to polarized trust in dissimilar social groups. Given the increasing global connectedness working against growing populist and regulatory appeals, our study suggests how people interact with our increasingly asymmetric communication ecology in posing a significant influence on the health of civil society.

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# **Supplementary Material**

Supplementary material is available online at *Human Communication Research* (http://mtp.oxfordjournals.org/).

# Notes

- 1. We also measured inter-item correlations of the index, which is a more straightforward measure of internal consistency than alpha (Clark & Watson, 1995). The range between .15 and .50 indicates a sufficient level of scale homogeneity, and all of our communication flows measures, across both waves, range between .31 and .44, suggesting the scale homogeneity of our communication flows measures combining news, talk, and social media.
- 2. We compared our survey sample with the 2016 American Community Survey data of young adults (18-34) provided by the U.S. Census Bureau (2016). Our sample largely reflects the demographics of the young adult population in the United States, which according to the Census had a mean age of 25.9 (ours is 27.43), 49.2% females (ours 47.1%), 71.5% white (ours 62.3%, reflecting the minority oversample), and 60.4% of those with \$50,000 of household income or higher (ours 54.9%).
- Given possible reinforcing spirals (Slater, 2007) of mutual influence of media 3. selectivity and effects (i.e., trust or online participation influencing communication flows), we conducted additional lagged and concurrent analyses to examine the reverse relationships of communication flows with social trust and online participation. We find that social trust in W1 was not associated with any communication flows variables (lagged model), neither online participation in W1 (lagged model), while our reported models suggest that partisan net communication flows were related to social trust and total communication flows to online participation. We also see evidence that changes in social trust lead to changes in partisan net communication flows, but not total communication flows, over the election period (concurrent model). Increased trust in different social groups predicted increased homogeneous communication flows for Democrats, but decreased homogeneous communication flows for Republicans. However, the overall adjusted  $R^2$ s were lower than our reported models (i.e., communication flows predicting trust). Similarly, changes in online participation during the election influenced changes in partisan total communication flows (concurrent model), but the  $R^2$ s were lower than our reported models (i.e., communication flows predicting participation), overall suggesting that higher explained variances of communication measures for social trust and participation than vice versa.

- 4. As additional analyses, we explored the interdependence between the dependent variables, social trust and online participation. The zero-order correlations showed non-significant relationships between the two, both in W1 (r = .021, p = ns) and W2 (r = .004, p = ns). The results of lagged and concurrent analyses with each of the dependent variables included also revealed non-significant associations.
- 5. While our main analyses solely focus on online-exclusive participation, we further explored the analyses with a related measure of "online activation." We tested the same model using items of "Sought out perspectives from people not like me or who disagree with me" and "Decided to take an action involving political or social issues because of something they read on social media," all of which refer to actions that are motivated from the online sphere but have a potential to extend to offline spaces. Our findings show consistent patterns, where changes in total communication predict changes in online activation. Taken together, we are confident that our findings are not restricted to online-exclusive actions but can be related to real-life consequences.

# **Conflict of interest**

The authors have no conflicts of interest.

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