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COMMUNICATION AND PUBLIC OPINION
PLUS ÇA CHANGE?

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Abstract Three central themes that have persisted throughout the history of research on communication and public opinion are examined in light of past, present, and future research. These themes include (1) ongoing concerns surrounding the political diversity of the communication environment; (2) selective exposure to political communication; and (3) the interrelationship between mass and interpersonal political communication. We explore the importance of these themes with an emphasis on how technological changes have made them, if anything, more relevant today than they were when first identified as central concerns of the discipline.

To say that communication technology has changed dramatically since the last *Public Opinion Quarterly* anniversary issue in 1987 is to state the obvious. But technological change alone does not necessarily dictate changes in the locus of scholarly concern. In this article, we suggest that many of the same themes that Elihu Katz identified on the 50th anniversary of *Public Opinion Quarterly*—which were themselves drawn from the earliest studies of communication and public opinion in the 1940s and 1950s—are as relevant today as ever. In this article, we review three major themes that connect studies of communication and public opinion from the past to those in the present and likely future.

First, scholarly activity reflects an ongoing interest in the political diversity of the communication environment. To what extent does the information environment approximate the democratic ideal of a marketplace of ideas? In this case, the research question is largely a descriptive one, asking to what extent the state of the communication environment is as one would like it to be. Beyond diversity, two additional themes follow directly from the earliest empirical

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studies of media and public opinion at Columbia University in the 1940s and 1950s. An emphasis on selective exposure was proposed by the Columbia researchers as an explanation for the lack of persuasive media effects found in their studies. Now the same theme is the focus of intensified research interest because of the proliferation of television networks and Internet news.

A third theme emanating from the Columbia studies was interpersonal communication. Over the past 25 years, studies of interpersonal communication have experienced a massive renaissance in the form of studies of deliberation and social networks. Moreover, one of the very earliest theories about interactions between mass and interpersonal communication—the two-step flow—is now more relevant than ever before. Although the conclusions that scholars draw may not be the same as 25 or 50 years ago, in the process of reviewing current work, we have found that what is important to scholars of the past and present is uncannily familiar.

Our three themes reflect *scholarly* interests during the past and present eras. Interestingly, throughout the period of *Public Opinion Quarterly*'s existence, the dominant *public* understanding of the importance of communication to public opinion has remained relatively constant and straightforward. In the United States and Europe, the public generally believes that media of all kinds consistently have large persuasive effects on political opinion (e.g., Parisot 1990; Schudson 1996). This fact is fascinating, if only because this perception has remained constant despite the waxing and waning of academic assessments over the years. As Warren Weaver of the *New York Times* put it in the foreword to Patterson and McClure's (1976) seminal book, *The Unseeing Eye: The Myth of Television Power in National Politics*, "If this pioneering book does not send shock waves through the broadcasting industry, the major political strategists of both parties, and the political science community, nothing ever will" (p. 18).

It thus appears likely that nothing will ever change this perception in the eyes of political strategists and the mass public. Perceptions of the media's political importance have not waned among the public, and the amount spent on communicating in order to influence public opinion has only increased (Bennett and Iyengar 2008), evidence notwithstanding. Based on this assessment, it seems fair to say that academic research remains largely irrelevant to what transpires in the real world (see Green and Smith 2003). Political consultants may shift spending from one form of communication to another, or from one strategy to another, but they remain true believers in the persuasive powers of the media (e.g., Vavreck 2009). Paradoxically, direct persuasive effects are the one area of research on communication and political opinion where academic interest has not flourished (see Neuman and Guggenheim 2011).

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For a combination of reasons, these types of effects remain elusive.[1] However, our ultimate concern is not with whether direct persuasive effects or effects of any other kind are minimal or massive, as these terms have limited meaning or utility. Instead, we are interested in how the themes we have identified have evolved during the years since the last *Public Opinion Quarterly* anniversary. These themes continue to reflect a concern for societal harm, but not as a result of the kind of persuasion that preoccupies the public.

In the 50th-anniversary issue, Jim Beniger (1987) observed that the term "mass society" had lost its currency, along with enthusiasm for studying direct persuasive effects (see also Neuman 1991). But, as we document here, the mass society theme of societal impoverishment due to changing patterns of communication has nonetheless retained its power and significance in scholarly writing. In this current era, however, the kind of effect on public opinion that is of greatest concern to scholars is no longer changing people's opinions so much as reinforcing them and making them more extreme. Reinforcement was prominent in the Columbia studies as well, but these scholars were heavily criticized for considering it a "non-effect" (e.g., Gitlin 1978).

As with the telephone, films, and television, inflated hopes about the effects of each new communication technology have been followed soon thereafter by a fear of imminent cultural decline along the lines suggested by mass society theory (see Mutz 1998). The most recent "new media" have been no exception in this regard. The most obvious technological change in communication since the 50th-anniversary issue has been the rise of the Internet. And, once again, scholars have exuded both high hopes and grave predictions. On the positive side are those who predict the rise of a stronger participatory culture as a result of the Internet (e.g., Jenkins 2006), an "empowering" of citizens in contrast to passive television viewing (e.g., Lawson-Borders 2006). But, just as Putnam (1995) and others blamed television for robbing people of their social networks, the Internet is our new whipping boy for fears about the loss of social relationships:

> We're moving from a world in which you know all your neighbors, see all your friends, interact with lots of different people every day, to a functional world, where interaction takes place at a distance . . . the more hours people use the Internet, the less time they spend with real human beings. (Nie and Erbring 2000, p. 1)

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1. The lack of evidence of strong effects has been blamed on measurement issues, the inadequacy of research models, and limited sample size (Zaller 1996, 2002). However, the jury is out on the extent to which these factors uniquely limit evidence of persuasive effects. For example, many measures of media exposure are no worse than other commonly used survey items in other research areas (see Dilliplane, Goldman, and Mutz 2010; Bartels 1993). To the extent that they are, there is no reason why media effects should not be held to the same standards of empirical evidence as other theories.

One cannot mistake the strong echo of mass society themes in this recent literature. The feared negative effects follow familiar themes involving the production of a socially isolated and atomized population, and the decline of a quality public sphere. As evidenced by books with titles such as *The Future of the Internet and How to Stop It* and *The Filter Bubble: What the Internet Is Hiding from You,* our current digital era appears to be no different in this regard (see Zittrain 2008 and Pariser 2011, respectively). Likewise, some scholars have characterized the current era as a "neo-dark age" fostering social fragmentation (through niche programming); realignment to narrow, parochial interests; lack of social cohesion; cultural stasis; and a decline in civic engagement (e.g., Kornegay 2009). Few have predicted a far more modest impact (but, for an important exception, see Neumann 1991).

Perhaps these fears will prove to be similar to initial fears of other new media—that is, somewhat overblown—perhaps not. Regardless, now as in the past, a great deal of the panic emanating from "new media" critics is borne of fear rather than evidence. In many ways, the role of research on communication and public opinion has been largely one of complicating simplistic initial assumptions. Complex findings do not cater to punchy headlines and thus seldom receive the same level of attention as apocalyptic warnings. Nonetheless, researchers trudge onward, adding to our general understanding of the role of communication in the formation and change of public opinion, even when their more modest conclusions do not generate headlines. In this essay, we produce a similarly mixed picture of the combined impact of these technological changes—including both the Internet and cable television—on public opinion.

Diversity: Be Careful What You Wish For

Twenty-five years ago, a dominant theme in communication researchers' critique of the news environment of that era was its political blandness. With television carrying the mantle of "most important medium" for political communication, the focus was on evening news broadcasts and the limited range of political perspectives they provided. Indeed, the nightly news programs of ABC, CBS, and NBC were widely criticized for being largely the same broadcasts covering the same narrow range of issues from the very same angles. Interestingly, professional journalistic norms promoting objectivity were perceived to be at the root of this problem. Although the motive behind these practices was acknowledged to be avoidance of bias and adherence to "just the facts," by avoiding partisanship, journalists were accused of skirting political argument altogether. Many scholars of that era were extremely critical of the lack of opinion incorporated in the news. As Bennett (1996) argued, "If anything, the press is guilty of taking its claims of objectivity or fairness too seriously and, therefore, failing to recognize that these professional standards boil down to an extremely passive stance toward news" (p. 163).

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Likewise, many political scientists of this era pushed for greater partisanship and political argument. The American Political Science Association Committee on Political Parties (1950) advocated a "responsible two-party system," that is, "*political parties which provide the electorate with a proper range of choice between alternatives of action*" (emphasis in original, p. 15). At the time, political parties were heavily criticized for offering insufficiently distinct political alternatives. The major parties were deemed Tweedledee and Tweedledum, leading to a situation in which "alternatives between the parties are defined so badly that it is often difficult to determine what the election has decided even in its broadest terms" (pp. 3–4). Coalitions that cut across party lines were to be avoided because they would "deprive the public of a meaningful alternative" (p. 19), and scholars regularly eschewed the lack of party loyalty among politicians.

When it came to the press, communication scholars of the previous era often espoused a romantic longing for the good old days, that is, the political press prior to the 20th century, when most newspapers were actively associated with and advocated on behalf of political parties. Instead, corporate profits now trumped a desire for political expression. As Bagdikian (1983) lamented in his classic critique of corporate ownership, nowadays media "aren't started with the desire of someone to express what he believes; [instead], they become bland to avoid controversy" (pp. 112, 85). Likewise, editors were chastised for being "too quiet, too bland, . . . too safe" (Diamond 1993, p. 393).

Rather than serving the interests of fairness and avoidance of bias, objectivity itself was often seen as an impossible "double standard," a "chimera" that simply reinforced the status quo. Professional journalists were dubbed "the best and the blandest" (Diamond 1986, p. 18), and a press with known bias or partisanship was seen as infinitely preferable to one with undefined, surreptitious politics. Anything was surely better than apolitical pablum:

> In the early days of the American republic, the news was anything but objective. Most newspapers were either funded by, or otherwise sympathetic to, particular political parties, interests, or ideologies. Reporting involved the political interpretation of events. People bought a newspaper knowing what its political perspective was and knowing that political events would be filtered through that perspective. In many respects, this is a sensible way to approach the news. If one knows the biases of a reporter, it is possible to control for them in interpreting the account of events. Moreover, if reporting is explicitly politically oriented, different reporters can look at the same event from different points of view. Finally, since political events generally convey political messages, an overtly political reporting style is more likely to draw these messages out than to let them slide by unnoticed (with the risk that they might pass for broad, non-partisan perspectives). (Bennett 1996, p. 147)

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From this discussion of the past, it should be clear that while the general diversity of political voices has always been valued by students of political communication, there has been little agreement on what kind of press best serves that end. The kind of diversity that critical scholars had in mind 25 years ago was one incorporating multiple advocacies rather than professional neutrality. Instead of an emphasis on facts and objectivity, the diversity they wanted was one of antagonistic vested interests, one in which reporters were advocates for their positions without any pretense of neutrality. This view of diversity is probably closest to the one John Stuart Mill had in mind when advocating a marketplace of ideas:

> . . . so long as popular truth is one-sided, it is more desirable than otherwise that unpopular truth should have one-sided assertors too; such being usually the most energetic, and the most likely to compel reluctant attention to the fragment of wisdom which they proclaim as if it were the whole. (Mill 1859, p. 67)

Whether Mill's conception of the marketplace works best remains to be seen; some formal models suggest that the public as an aggregate will be less informed by this system than by a monopoly with politically moderate reporting (e.g., Stone 2011).

Regardless, the recent proliferation of channels on cable television seemed to promise precisely the possibility of many opinionated voices. And the Internet offered a megaphone (or at least a microphone) to even more people to espouse political arguments. Given the suspicions with which scholars regarded the professionalized "objective press" of that era, one might assume that by incorporating more partisan voices, contemporary political television would be viewed as a genuine step in the right direction. After all, today no one complains that Fox News, MSNBC, and the various networks all look alike in their coverage, or that people with radical viewpoints lack ways of communicating with their compatriots. Pleas for more politicized news content are rare indeed.

Nonetheless, the current media environment has not been heralded as an unabashed improvement either. Instead, the rise of partisan media outlets and proliferation of channels of communication has given rise to an entirely new set of concerns. The political media currently on offer to citizens include a panoply of voices, both partisan and otherwise. What is perhaps most impressive is the sheer amount of information and opinion one can access if one is so inclined. The old-style network news programs remain, but have been joined by myriad styles of political and public affairs news, including roundtable discussions, talking (and screaming) heads, interview programs, and comedy news, to name just a few. Indeed, asking the average citizen whether he or she watches, reads, or listens to "news" these days is the classic example of a bad survey question because the very definition of what constitutes "news" is in flux. Because scholars have yet to come to grips with all of

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these recent changes, we know little about where people are getting their exposure to political information and argument, and whether the source makes any difference.

Two concerns have received the bulk of attention with respect to the huge increase in media choice afforded to U.S. citizens. The first is that the choice between political and nonpolitical media will lead to an increasing gap between the political "haves" and "have-nots." In this case, the choice that is relevant is between news and public affairs content as opposed to purely entertainment programs. A second form of choice that raises eyebrows for entirely different reasons is the choice among different sources of political and public affairs news.

CHOOSING AMONG GENRES

For many Americans, the central choice is whether to pay attention to political media at all. As Prior (2007) points out in *Post-Broadcast Democracy*, politics is not inherently interesting for the bulk of the American public. When a representative sample of respondents was randomly assigned to choose among either the traditional early evening broadcast options or not watching at all, around 80 percent chose one of the broadcast news options, and 20 percent chose not to watch anything. But when an equivalent sample was given those same options along with the broader selections available to cable subscribers (e.g., a sitcom, drama, science fiction, reality show, or sports), only 35 percent chose a news program, and 9 percent chose not to watch anything. Not surprisingly, the majority chose non-news programming.

The implication, according to Prior (2003), is a smaller inadvertent audience for news; given the choice, citizens who are not particularly interested in politics will opt out and watch sitcoms or dramas instead, decreasing their exposure to political information. Less incidental exposure lowers political knowledge and participation among those only marginally interested. As such, the diversity of available genres does not appear to serve democratic interests. On the other hand, the proliferation of programs within the soft-news, "infotainment" genre has meant that more people are exposed to political content through programming outside traditional news (Baum 2002, 2003a, 2003b). The net impact of these two forces is unclear. But, to be fair, this is not the kind of diversity of choice that most political theorists have in mind when they highlight the benefits of a marketplace of political ideas. It is the diversity of political ideas, rather than genres, that is of concern.

CHOOSING AMONG POLITICAL NEWS SOURCES

Choice has increased not only among political and nonpolitical media, but also *within* the realm of political news sources. The diversity of perspectives offered is now broader than in the broadcast era. Most observers and scholars concur

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that the partisan diversity of political information sources has also increased relative to the broadcast era. In this case, however, the main scholarly concern is that choices will be based on pre-existing prejudices and partisanship, thus leading to news exposure that strictly reinforces pre-existing political views. Reinforcement was viewed by Lazarsfeld et al. as "a lower-order affair compared to persuasion or mobilization" (see Gitlin 1978, p. 216); it was akin to no effect at all. Nowadays, however, reinforcement is at the heart of scholarly concern about the impact of new media.

Two possible consequences are at the root of most hand-wringing over the fragmentation of news exposure along partisan lines. The first concern, voiced most strongly by Sunstein (2007), is that the public will lack common ground to use as a basis for discussion and debate. According to this line of thought, the increased choices offered by Internet news and cable television have combined to deprive the American public of shared experiences, the kind previously provided by general-interest media sources without strong partisan identities. If audiences are receiving entirely different versions of the news of the day, they may have difficulty discussing issues of mutual concern.

A second concern stemming from partisan fragmentation of news audiences is the fear that modern communication technologies will fuel extremists' fires. There are more diverse political voices in the marketplace, to be sure, but to the extent that people expose themselves exclusively to one set of those voices—those with whom they already agree—then political views can be expected to polarize, and thus governing becomes more difficult, and extremism more likely. By exposing themselves strictly to echoes of their own voices, partisans may become less willing to compromise, and less likely to consent to being governed by another faction. Importantly, based on the scenarios described above, the perils of a politically diverse communication environment are assumed to be driven not by the kind of political media on offer (the concern of the previous generation), but by the actions of individual citizens whose choices among plentiful sources paradoxically lead them to less, rather than greater, political diversity of exposure.

What is less clear from evidence accumulated to date is (1) whether those politically interested enough to be motivated to choose likeminded political content are exposed exclusively to likeminded content; and (2) how much of this selection process is driven by ongoing, active choice on the part of the individual. We turn next to address these issues in the context of the long history of research on selective exposure.

Selective Exposure

The diversity considerations discussed above segue naturally into consideration of a second theme emanating from the earliest research on political communication in the1940s—selective exposure. For most scholars, selective exposure

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refers to the active avoidance of content that contradicts one's own opinions and interests, and/or seeking out likeminded views. Although people often point to the first U.S. election study—*The People's Choice*—as the earliest evidence of selective exposure (see Lazarsfeld, Berelson, and Gaudet 1944), in reality there was little evidence to support such a claim in that particular study, mainly because Erie County residents had only one newspaper, plus wire service radio news, from which to choose (see Chaffee and Hochheimer 1985). In an era when most news media disavowed partisan loyalty, the study of selective exposure based on partisanship made little sense. Even if one wanted to watch only likeminded news, it would have been difficult to obtain.

More recently, as a result of more open expressions of partisanship in political media, there has been a huge resurgence of interest in this topic, although not always using the same terminology. For example, in addition to studies of selective exposure *per se*, studies of motivated reasoning focus more broadly on biases in people's strategies for constructing and evaluating beliefs, but in some cases also on a confirmation bias in the information to which they choose to expose themselves (see, e.g., Kunda 1990; Taber and Lodge 2006).

Although scholars frequently point to the current high-choice media environment as one that is obviously rife with selective exposure on the basis of partisanship, upon closer examination this question is more complex and less easily answered than it first seems. Is partisanship-based selective exposure increasing? And do specific characteristics of today's media make selective exposure more likely?

To consider these questions, we must first examine more carefully what is meant by selective exposure. For some, necessary and sufficient evidence of selective exposure requires nothing more than having partisans of a particular stripe be more likely to watch a given source of news than partisans of the opposing side (e.g., Gentzkow and Shapiro 2010). Evidence of this kind abounds. For example, according to the Pew Research Center for the People and the Press (2010), 40 percent of Republicans regularly watch Fox News, compared with just 15 percent of Democrats. Likewise, liberal Democrats are far more likely to watch CNN or MSNBC than conservative Republicans (p. 26). Similar patterns of news consumption are found for newspapers, entertainment programs, and talk radio. For example, those who listen to Rush Limbaugh or watch Sean Hannity are disproportionately conservative, and audiences for the *New York Times*, Keith Olbermann, the *Daily Show*, the *Colbert Report*, and Rachel Maddow are disproportionately liberal (Pew Research Center for the People and the Press 2010). Upon closer examination, however, these patterns alone are insufficient causal evidence of selective exposure based on the partisanship of media content.

Conceptually, it is important to distinguish between *active* selective exposure, that is, when an individual actively chooses among alternative sources of news and information on the basis of a psychological preference for

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supportive information, and *passive* selective exposure, that is, when factors other than individual choice lead to the same pattern of likeminded exposure.[2] Passive selective exposure is perhaps best known in the context of interpersonal communication, where social networks tend toward political homogeneity, in part because of spurious factors that put people who are more likely to be of similar views in close physical proximity to one another. In a case such as this, it is *availability* rather than choice based on political similarity that facilitates homogeneous networks.

The distinction between active and passive selective exposure is also important for understanding the impact of changing media environments. The potential for active selective exposure is augmented by the greater range of partisan choices in today's media environment. If broadcasts by ABC, CBS, and NBC were largely indistinguishable in the 1980s, even the most avid partisans would have a hard time exercising active selective exposure. Given the same news broadcasts in 2011, but also including MSNBC and Fox News, partisans should have greater success in exercising active selective exposure. Ironically, the more diverse the political communication environment, the more it facilitates the active exercise of selective exposure to likeminded views for those who are motivated to do so.

Furthermore, the diversity of political voices on the Internet makes it possible for extremists of any ilk to find their brethren and share news of likeminded slant. But how many people really do this? Interestingly, most commentary to date is about the *potential* for people to do this, not about actual evidence that they do. On the contrary, there is a striking concentration of online traffic among a relatively small number of mainstream news websites—in particular, those affiliated with traditional "legacy" news media, that is, media that existed in another form (e.g., newspapers or television) before it moved onto the Internet. In the United States, prominent examples of high-traffic legacy news sources online include the three cable networks (MSNBC, CNN, and Fox News), the three original national television networks (ABC, CBS, NBC), and newspapers such as the *Washington Post*, the *LA Times*, and *USA Today*.

The Pew Center's (2010) *State of the News Media Annual Report* found that the top 7 percent of news and information sites collected 80 percent of the user traffic. Among news sites that attracted 500,000 monthly visitors or more, the top 10 percent garnered half the traffic; 67 percent of these high-traffic sites were tied to legacy media. Likewise, the millions of blogs and social media sites analyzed were found to be overwhelmingly linked to U.S. legacy news sources. Thus, even in the realm of new media, traditional media sources dominate. And, while an increasing number of people get their news online,

2. Sears and Freedman (1967, p. 196) use the term "de facto" selective exposure to refer to any association between the views of a voluntary audience and the slant of the communication, regardless of the cause of this association. De facto selectivity is "noncommittal with respect to the cause of this bias." Their term thus incorporates both the active and passive varieties described above.

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few online newspaper sites look much different from their paper-and-ink predecessors and most present the same news to their online and offline readers (Linden 2008). At least for now, it appears that most online news media function less often to reinforce extreme views than to deliver the same mainstream information as before in a new way.

In theory, one might expect the relationship between the number of available media sources and the extent of active selective exposure to be curvilinear. With a small number of choices (say, three networks), there are limited opportunities for selection. With six to 10 options at any given point in time, viewers arguably have more opportunities to exercise selectivity, provided the programs themselves are politically diverse. However, in an extremely high-choice environment, with hundreds of program options as is now common, it is improbable to suggest that a viewer pick up the remote control and channel-surf among all possible programs in order to decide which program to watch at a given sitting. There are simply too many options to make this approach feasible. Thus, although media audiences today have more *opportunities* to exercise choice by means of active, partisan-driven selective exposure, it is not clear that the actual amount of time and energy spent on this has increased.

As a result of the excessive number of options, mechanisms known as "news recommendation engines," that is, systems for directing individuals to specific kinds of content, have stepped in to facilitate the overwhelming task of choosing. These engines do not necessarily reflect the same news values as professional journalists (e.g., Thorson 2008). Recommenders come in many varieties, but they are all oriented toward making selection either less burdensome or altogether unnecessary. More importantly, they raise the specter of *passive* selective exposure, which may pose a far greater threat to the diversity of people's online information environments, precisely because it does not require active effort.

Passive selective exposure is a completely independent source of apprehension for those concerned about the quality of the present and future public sphere. It suggests that some other factor involved in the choice process is correlated with partisan similarity, leading to the same outcome without the same intent or motivation. Choice of media is constrained by availability, and people have a higher probability of reading or watching whatever is put right in front of them. If one lived in a city with only one newspaper, for example, and that newspaper reflected the conservative bent of the city, then many of the city's residents (at least the conservative ones) would experience passive selective exposure to conservative news. If they wanted to read a local newspaper, it would necessarily be a conservative one because that would be all that was available within that city. By putting some items at the top of a Web page and others several links down, recommendation engines can greatly affect exposure via availability.

Some recent evidence that has been interpreted as supportive of active selective exposure may, in fact, be evidence of passive selective exposure, that

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is, likeminded exposure that occurs for reasons unrelated to motivations to be exposed to likeminded political views. Take, for example, a recent study interpreted as evidence of an active selection process. Iyengar and Hahn (2009) created a clever experiment in which respondents chose among a variety of individual stories labeled as coming from different television networks on a range of topics. They found that, when all else was equal and different kinds of stories were rotated through the various labels, conservatives had a disproportionate preference for Fox News, and liberals for CNN and NPR. What is perhaps most interesting about these results is that the findings held across topic areas that had nothing whatsoever to do with politics. Even in an experiment that made all news stories equally available and accessible, conservatives preferred not only their politics, but also their sports and travel stories from Fox.

How can we attribute such a pattern to selective exposure based on motivations to avoid dissonance? Did conservative respondents believe that the Oklahoma Thunder would be more likely to beat the New York Knicks if they watched their basketball news on Fox? This seems highly unlikely. But when all stories are made equally available (which is clearly not the case in the context of a single newscast), why prefer to get sports and travel news from a conservative channel? Our guess is that the answer lies in the highly habitual nature of media use and of television exposure in particular. Even when structural factors change, the same media habits typically remain (Rosenstein and Grant 1997). People who came to the experiment as Fox viewers likely chose stories from the network with which they were familiar, rather than because they expected less dissonance from a Fox sports story than one from another network. Our more general point is that it would be a mistake to infer that respondents' ongoing media choices are based entirely on a motivated desire to avoid non-likeminded content. Instead, as in the experiment described above, choice is probably based to some extent on habit, that is, the network watched most at home. Particularly when faced with a huge number of media choices, people are less likely and less able to actively choose based on current content. Of course, this observation does not explain the genesis of the original habit, which had to occur via some process, but the origins of habit may be difficult to study experimentally.[3]

Many media scholars view what we have labeled passive selective exposure as the most insidious threat posed by new technology. Indeed, passive selective exposure is at the root of the most ardent pessimists' assumptions about the tendency of the Internet and other new technologies to deplete the public sphere of opportunities to hear the other side. These worries stem largely from the ability of new technologies to tailor what is seen to be pre-existing

3. For similar reasons, Stroud (2008) advocates investigating habitual exposure patterns rather than single-exposure decisions.

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preferences. The fear is not so much that people are all political ideologues, actively chasing down likeminded views; instead, the fear is that people's information environments will, without their knowledge or consent, become structured so as to make likeminded views more readily available than dissenting voices. What bothers people most is not being presented with *opportunities* to filter so much as having it done for them without their awareness.

Automated information filtering is commonplace—and necessary—in today's information environment. For most media users today, it is simultaneously convenient and somewhat disconcerting to realize that someone else (even a machine) knows your likes and dislikes. The question is, "To what extent do new communication technologies make likeminded political information more readily available than non-likeminded content?"

In order to answer this question, it is essential to understand more about how filtering technologies work. Because these are often proprietary algorithms, scholars often must infer underlying processes indirectly from their end results. To illustrate the complexity of their effects for furthering passive selective exposure, we briefly discuss the implications of two pervasive filtering devices, recommender agents and search engines.

The simplest means by which selective filtering of content can take place is when the user him- or herself inputs information into a system that then filters what is seen. For example, Google News allows users to specify degrees of interest in world news, business, entertainment, sports, and so forth. To date, however, we know of no news and information website that includes the option of specifying partisan or ideological leanings (see also Gentzkow and Shapiro 2010), thus limiting the potential for partisan news that is tailored by the user's request on this dimension. Furthermore, most users do not use such features anyway.

As a result, passive recommender systems are far more important. Most recommender systems are either content-based and/or collaborative filtering recommenders. Content-based recommenders use attributes of the programs or media content itself to make predictions, whereas collaborative filtering systems use other, similar viewers' preferences. Although recommender systems for television viewing are less well developed than for the Internet, they operate on similar principles. For example, TIVO and Netflix use both approaches in generating predictions, but collaborative filtering (i.e., "Customers who liked X also liked Y") allows far more specific predictions.

Once a user has visited a given website, he or she will accumulate what is known as an implicit profile, that is, a systematic tracking and recording of information about activities done while on that particular site. Profiles are site-specific, and the "cookies" they use to collect data are not automatically shared with other sites. Thus, cookies typically function only when the user is on that particular site. However, some advertising companies provide the possibility of "third-party" cookies, which allow the tracking of a user across multiple sites. This allows the advertiser to target specific ads to the consumer

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so long as he or she is on a client website that also subscribes. This is why ads for products appear to "follow" users to different websites, even when they have not clicked on ads on that particular site. Importantly, these cookies convey information about consumer interests from one site to another, but not about the content of the sites that one uses beyond the ads themselves.

Collaborative filtering provides the potential for encouraging exposure to likeminded views. Through collaborative filtering, one user's behavior online is essentially matched with that of others who make similar choices. In this way, people who are like one another in interests may end up being exposed to similar information due to receiving similar recommendations. Being "similar" in this case refers not to explicit partisanship or ideology so much as being similar in terms of what one pays attention to online.

For many, their earliest exposure to the customizing potential of the Internet was through online retailers such as Amazon.com. Using patterns of previous purchasing behavior, these recommender systems effectively pattern-match to provide personalized recommendations to each user based on their previous purchases *and* the purchases of other users. Spatial maps illustrating patterns of political book purchases such as the one from Krebs (2008) shown below in figure 1 suggest ominous possibilities as a result of collaborative filtering. If Democrats read one group of books and Republicans another, and they have few "bridging" sources in common, then this may promote polarization. By using purchases that one has in common with others, still more likeminded purchases are encouraged.

So, to what extent should we expect the same kind of outcome as featured in figure 1 for news exposure? Thus far, both of these processes are used mainly to tailor *product* recommendations and advertisements, not political news. At present, most news and information websites are advertiser-supported rather than products for purchase *per se*. As such, cookies are used to collect information on likely products of interest rather than news and information. However, just recently, several major news websites have begun erecting "paywalls," that is, charging fees for access to their news content, an experiment that may or may not ultimately prove profitable (Mirkinson 2011). To the extent that news becomes another consumer product that is purchased, it could be filtered in similar ways. The difference between directly purchasing news, and subsidizing it through advertising, may not have mattered as much in the past, but in the Internet age it probably matters far more. Even those willing and able to pay would find themselves with a more limited worldview if news, rather than audiences, is the commodity being sold. Further, the more effort and expense that is required to access the news of the day, the fewer people are likely to bother, thus exacerbating the trend toward the political information haves and have-nots (see Prior 2007).

To the extent that a person goes to the same news website on an ongoing basis for information about the news of the day, that site may track the content he/she accesses and then use that information in choosing what is made most available

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Figure 1. Spatial Map of Political Books Purchased in October 2008. Reproduced with permission from Valdis Krebs, Orgnet.com. Social network analysis of books purchased on Amazon.com in October 2008, using InFlow software.

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on the page. However, unless different stories *within a single website* have different partisan angles, it is unlikely to prioritize one story over another on the basis of partisanship. Recommender agents are far better at inferring users' topics of interest than their partisanship.

Search engines, such as Google's now-dominant one,[4] are another source of consternation for those concerned about passive selective exposure. Although the exact algorithms used by search engines are proprietary, the underlying basis of Google's search engine is link popularity, which in Google's case is known as PageRank. In simplest terms, what PageRank does is establish a ranking for each link based on its popularity with other sites. A given link's ranking depends not only on the number of incoming links to that site from the entire Web, but also on the relative "importance" of the sites that link to that site, with importance being determined by the site's own number of links. The end result is that sites that are well established and highly linked hubs will receive higher priority and thus appear at the top of people's search pages.

Thus, link popularity produces a mainstream political bias in search engine results. Its influence on the kinds of political viewpoints that are seen most often should be a moderating one rather than a polarizing influence. If we imagine, for the sake of example, a normal distribution of political viewpoints in the population, then the most popular websites should come to the top of one's search results, and those should be moderate, mainstream ones.

This phenomenon—whereby search engines encourage Web traffic toward the most popular sites—has been criticized as anti-egalitarian: "It seems to follow a 'winners take all' power-law distribution, where a few successful sites receive the bulk of online traffic" (Hindman, Tsioutsiouliklis, and Johnson 2003, p. 1). The ranking process under-represents smaller, less well-linked sites, which are also likely to present more extreme viewpoints (Gerhart 2004; Schroeder and Kralemann 2005). So, although popularity-based recommendation cues clearly influence which stories people are more likely to see (Knoblock-Westerwick et al. 2005), such cues are unlikely to direct people toward extremist sources so much as toward the median view.

As of 2009, Google refined its search engine to personalize search results for all users (Horling and Kulick 2009). In other words, searches take into account not only PageRank, but also the individual user's search history and other information included in a personal profile. Personal profiles collect information on what a person is interested in (based on searches and click-stream histories), their social circle (via e-mail and social networks), and where they are located in physical space (see Stalder and Mayer 2009). The personalization of search query results is supposed to deliver more relevant information to users, but thus far research suggests that it serves the interests of advertisers more than users

4. As of 2011, Google currently handles more than two-thirds of all search traffic in the United States (see ComScore Report 2011).

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(Feuz, Fuller, and Stalder 2011). Both here and in the case of collaborative filtering, "giving people what they want" has been perfected to a much greater extent in the realm of products than of political information. It is worth remembering that most search engines serve two purposes: They provide search results to users, but they also provide users to advertisers, and the latter function is how they make money.

Further constraints on the capacity of search engines to promote greater exposure to politically extreme views come from limitations of the Google directory. Search engines index and catalog the Web regularly for their directory, but even the massive Google directory indexes less than 50 percent of the Web. Thus, pages that are not well linked are unlikely to be found, even by someone who is actively seeking them out. Given that journalists increasingly use the Web for their own research, there is an increasingly circular, self-referential aspect to the kinds of news and information that become most prominent via Web exposure (Machill and Beiler 2009). Although the kind of automated ranking and filtering that Google does is impartial in the sense that it is not driven by human partisanship (e.g., Carlson 2007), it nonetheless makes mainstream political viewpoints more available than extreme ones. Interestingly, whether that is a positive or a negative development is what remains in question.

As suggested above, different kinds of online filtering suggest effects in potentially contradictory directions with respect to whether citizens will be encouraged toward exposure to more diverse information sources online, or more politically homogeneous viewpoints. Search engines using link popularity may promote more mainstream news sources, whereas collaborative filtering could produce greater homogeneity of exposure.

Given the growing trend toward obtaining one's news online, one may well wonder why the availability of new stories is not already carefully tailored to individuals' desires and prejudices the same way that movie and book recommendations already are. As Linden (2008) suggests, "It may seem a small step from recommending products to recommending information. In fact, doing so is actually quite complex" (p. 48). There are a number of obstacles that prevent this degree of personalization on most news websites. For one, the universe of information available on the Web is much larger than the world of Amazon's products, thus upscaling and complicating the task. Google News has the computing power to enable implicit personalization of news, but most local newspapers that are now online—and even many national ones—do not.

In addition, news recommender systems face a more serious version of the "cold start problem"; when a story is new, it has not yet attracted attention from enough readers for it to be successfully predicted to be of interest to other, similar readers via collaborative filtering. This is a short-term problem. For example, within a few days or weeks, a recommender system helping with movie selection will have accumulated enough information from users that it can accurately predict who else would find the movie of greatest interest.

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A news article, with its short shelf life, has only a few hours to attract enough "clicks" from other news readers in order to accumulate information to fuel the recommender system. With a more limited volume of information, it is difficult for a recommender system to work well in targeting consumers. It is possible to generate recommendations based on general topics of interest to a given reader, but even this is algorithmically difficult (see Linden 2008).

So, although results such as those shown in figure 1 raise terrifying prospects of a society heavily divided by partisanship, it would not be easy to accomplish this same pattern with online news stories. As any scholar who has attempted an automated content analysis of news slant knows, the subtleties of partisanship make this difficult for a human, let alone a machine. Moreover, stories from within any given news website are unlikely to differ a great deal in partisan slant.

Google News, a large-scale news aggregator (distinct from the Google search engine), is one exception in that it utilizes a variety of techniques and its substantial computing power to create implicit news personalization. Because it aggregates stories from multiple other sites rather than producing its own news, it can keep track of which sources and stories are clicked on by people who read news through its site. For example, using "co-visitation," a collaborative filtering algorithm, Google News users are directed toward the content that other Google News users who are similar to them have also found of interest. Google reports that personalization increased "click throughs" on Google News by 38 percent over standard recommendations based on the most popular news stories (see Das et al. 2007). For those who would like to see news consumption increase, this effect could be seen in a very positive light. Giving people what they want seems to increase their consumption of news. On the other hand, from the perspective of diversity of exposure, many scholars see this as a threatening development, even though it is not a widespread capability at this point. To date, we lack evidence that collaborative filtering is capable of producing personally tailored news that mirrors one's partisanship. Fortunately, to do so requires solving some difficult problems in machine learning. As a result, it may be premature to suggest that Internet news readers will expose themselves primarily to likeminded political content because of passive selective exposure via news personalization. Nonetheless, now, as in Lazarsfeld's day, reinforcement of existing views (and concomitant polarization) is probably the most widely hypothesized media effect (see, e.g., Levendusky 2011).

Links between websites provide yet another avenue for potentially bolstering passive selective exposure. Ideologically oriented websites are significantly more likely to include links on their pages to other websites that are ideologically similar than to sites of differing political views (see Sunstein 2007). To the extent that these links encourage users to remain within a pool of politically similar sources of information, they thereby make it easier for likeminded readers to avoid dissenting viewpoints. What we do not know to date is

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how much likeminded traffic is brought to the same sites due to these links versus other, independent reasons, such as the user's ideology. Because so much news exposure today is habitual and/or based on familiar sources that predate the Internet, the ongoing impact of cross-links remains uncertain, although they can clearly increase traffic to previously unknown websites.

Overall, the current state of affairs suggests that while new media options provide audiences with the *potential* to expose themselves to purely homogeneous content, there is not yet much evidence of its impact. Moreover, to the extent that exposure has become more politically homogeneous, it is unclear whether active or passive forms of selective exposure are to blame, and what role habit plays in sustaining these behaviors. However, as discussed above, recommender agents come in many forms with varying implications—and not all of them are powered by artificial intelligence. Despite considerable hand-wringing about potential negative effects of new technologies on the extent of person-to-person linkages, via social media, social networks are probably a bigger influence now than ever before on the type of news to which people are exposed, and this influence is likely to become even stronger in the future.

Interpersonal Networks

Thus, a third classic theme in the study of communication and public opinion—and the one with perhaps the greatest growth potential—concerns the intersection of mass and interpersonal communication. In the earliest studies of media and public opinion, the bulk of persuasive power was attributed to personal relationships. Since the publication of Katz and Lazarsfeld's (1955) classic, *Personal Influence*, the reigning consensus has been that "[p]eople can induce each other to a variety of activities as a result of their interpersonal relations and thus their influence goes far beyond the content of their communications. . . . Persons have *two* major avenues of influence while formal mass media . . . have only one" (pp. 185–86). In other words, because people care about maintaining their social relationships, they will pay attention to what a friend or associate says for reasons that go beyond an intrinsic interest in the content.

In recent years, there has been a resurgence of interest in the power of social networks as conveyors of both influence and information that undergirds public opinion. In one unmistakable respect, the last 25 years represent a zenith for the study of face-to-face political communication. Beginning with the 1989 English translation of Habermas's (1962) *The Structural Transformation of the Public Sphere*, social scientists have been captivated by the notion of deliberation and the potential that interpersonal communication holds for improving the quality of democratic decision-making. Although Habermas's concerns were primarily

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normative, his theory made many claims that attracted the attention of empirical researchers who set out to test these assertions.

Although the conversation between normative theorists and empirical scholars regarding deliberation's benefits remains strained (see, e.g., Thompson 2008; Mutz 2008), there is no doubt that this confluence of interests has produced prodigious amounts of research, from large-scale studies of deliberative opinion polls to research on town meetings and small-group interaction (for reviews, see Delli Carpini, Cook, and Jacobs 2004; Ryfe 2005; Mendelberg 2002). The content of *Public Opinion Quarterly* (*POQ*) itself reflects this scholarly trend. In figure 2, we illustrate the rapid increase in *POQ* studies that mention deliberation in some respect. Up through the 1980s, most mentions of deliberation involved elites, for example Congress or the political parties, deliberating over an issue. Following the translation of Habermas's work, there was a rapid increase in studies utilizing this term in ways that involved the mass public. Notably, although figure 2 reflects the rise of interest in deliberative processes as a topic in public opinion research, it undoubtedly neglects many other terms that are commonly used in studying the importance of person-to-person communication. For example, during the same period, studies of social capital have increased tremendously (see Uslaner 2001; Jackman and Miller 1998), and research on social networks has blossomed as well (e.g., Huckfeldt and Sprague 1995; Huckfeldt, Johnson, and Sprague 2004; Mutz 2006).

Interestingly, despite the renewed emphasis on face-to-face communication in scholarly research, the major theory from the 1950s attributing great importance to conversation networks—the two-step flow of communication—has

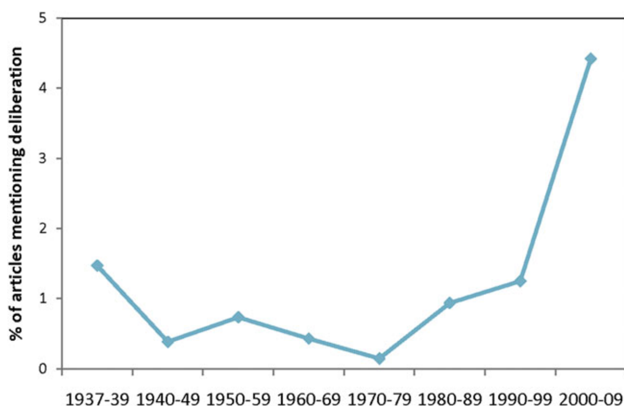

Figure 2. References to Deliberation in *Public Opinion Quarterly*, 1937–2009. Data points represent the percentage of articles mentioning "deliberation" or "deliberative" in the full-text (excluding references) by decade, as retrieved via the EBSCO database. The denominator was estimated using the number of articles in the first issue of each year multiplied by the number of issues per year, summed over the decade.

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largely dropped from view in research on public opinion. The two-step flow suggested that media messages were received by opinion leaders who, in turn, interpreted these messages in light of their own group loyalties and identities, and disseminated them through their interpersonal interactions to people within their networks (Katz and Lazarsfeld 1955). Even in the original *Personal Influence* study, of the four areas in which attitude change was studied, public affairs was the one area where decisions appeared to be made predominantly without any personal contact (Gitlin 1978). In the context of research on public opinion regarding political affairs, the two-step flow idea died out as a research framework mainly for lack of empirical support (see, e.g., Bennett and Manheim 2006).

Nonetheless, we see great potential for this theory to experience a renaissance due to the very changes noted above. When news consumers confront the excessive choices of today's media environment, one extremely important way they decide what to pay attention to is through recommendations that reach them through their online social networks. Given the well-documented tendency toward homogeneity in social networks, social media recommendations have considerable potential to polarize people's information environments.

The attention directed toward the importance of interpersonal networks in the 1940s is, if anything, more *apropos* today than it was then. We are not suggesting that people now talk about politics any more than they ever have; most assessments suggest no change over time in this respect. But, the popularity of social media platforms such as Facebook has created an ideal means by which people can exercise opinion leadership within social networks. According to the Pew Research Center, among those who get news online, 75 percent get news forwarded through e-mail or posts on social networking sites and 52 percent share links to news with others via those means (Purcell et al. 2010).

Social media "plug-ins" expand regular social media use by embedding links to stories from news websites on social network pages, and also by allowing the user to see what news stories his/her friends have liked, commented on, or shared on sites across the Web as he/she is browsing. In short, technology has made it easier for people to share news stories they find of interest with their friends and acquaintances, allowing them to act as opinion leaders in the original sense of this term. For example, all one need do in order to alter the likelihood of exposure to a given news story among one's network members is share a link on Facebook or click on a "Like" button provided on the screen of many websites. In contrast to cross-links between websites or purely machine-generated recommendations, plug-ins allow one to highlight a particular story within a news website—displacing other news stories—to share with friends or acquaintances, thus narrowing what is available to include specific stories hand-picked by one's network. These highly personalized recommendations have been demonstrated to be effective in getting others to read and view specific content, far more than generic recommendations based on the

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most popular or widely e-mailed stories of the day (Messing, Westwood, and Lelkes 2011).

Theoretically, social media recommendations could increase or decrease exposure to politically diverse content, depending upon the political heterogeneity of one's network. But, in practice, most of what is known about face-to-face social networks suggests that networks are highly politically homogeneous, even more so than the media that individuals consume (Mutz and Martin 2001; for more recent evidence, see Gentzkow and Shapiro 2010).[5] On the other hand, online networks tend to be much larger and include a substantial number of "friends" who are at best loose acquaintances. Weak ties such as these should be less homogeneous than face-to-face networks.

To date, the only study we are aware of attempting to compare ideologically driven selective exposure online versus offline suggests that "ideological segregation of online news consumption is low in absolute terms, higher than the segregation of most offline news consumption, and significantly lower than the segregation of face-to-face interactions with neighbors, co-workers, and family members" (Gentzkow and Shapiro 2010, p. 1). Undoubtedly, these patterns are driven at least in part by the ongoing popularity of a small number of mainstream sources. However, given that this study does not address the extent of homogeneity in people's online social networks, it provides little guidance as to whether online opinion leadership is likely to expand or contract the diversity of information to which users are exposed. Regardless of the direction of the finding, we predict a resurgence of interest in the study of opinion leadership, as technology makes it possible to exercise this role with ease (see, e.g., Messing et al. 2011).

Conclusion

One of multiple frustrations involved in research on communication and public opinion is that we are studying a moving target. Communication technology is constantly changing, thus raising the specter that anything learned today may be out of date by tomorrow. Against this backdrop, it is fascinating that the underlying sources of concern have remained so constant while everything else about communication has changed so radically. The most recent "new media," that is, proliferating television networks combined with Internet news, are no exceptions in this regard. And they have been subject to the same cycle of veneration and condemnation as have other new developments in communication.

The underlying issue in all of the controversies described in this essay is normative: Do these changes in the media environment have positive or

5. The Mutz and Martin (2001) evidence is now dated, but Gentzkow and Shapiro (2010) suggest similar findings with more recent data, although their measures of mass and interpersonal communication are not strictly comparable.

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negative implications for public opinion? The difficulty in answering this question is that scholars have never really formed a consensus about what is desirable in an information environment, let alone from television or the Internet in particular. Of course, people in a democratic society should be well informed so they can hold political leadership accountable. And certainly they should be exposed to diverse political arguments so they can make up their minds about the issues of the day. People must also be provided with a motivation and the means to take political action when they feel so moved. And ideally they should be able to accomplish all of this without putting monumental amounts of time and effort into the task. But, to get to that goal, do we want diverse voices across a multitude of media outlets, or single sources that incorporate many political perspectives? And do we want media to provide a platform for political perspectives only within a certain distance of the median citizen, or should more extreme voices be readily accessible as well?

Those who believe there are clear answers to these questions are mistaken. No one disputes that there is now plenty of political information available to those who are interested. On the Internet, in particular, the range of available information is overwhelming. But, because there are too many options to thoughtfully consider, audiences must, of necessity, rely on technology to narrow the selection. Help comes in two basic forms: personal recommendations from other human beings, and recommendations from the aggregated opinions of impersonal others, facilitated by everything from PageRank to "most widely read" links to highly tailored collaborative filters and personalized searches.

Online, there are many different ways in which what one sees on the Internet is "filtered" or personalized in ways that reflect the user (see Pariser 2011 for a more extensive discussion). However, the upshot of our examination is that while filtering and personalization are clearly rampant practices online, to date they may not be nearly as ominous an influence on what reaches individuals as are their interpersonal networks, when aided by new technology.

The jury is out on what the total impact will be of these multiple concurrent systems. Television still remains the most popular news source as of 2011, and it suffers from the same surfeit of choices as the Internet. As a result, recommender systems are jumping in to help viewers with these selections as well. Overall, the implications of these changes will hinge on the extent to which they make diverse political news both more interesting and more readily available to citizens.

Future research will be forced to address these issues head on. Both active and passive varieties of selective exposure will need to be studied. And, rather than romanticize personal networks as purely harmless or exclusively positive influences on the quality of public opinion as they have been portrayed in classic mass society theory, these information sources will need to be treated more evenhandedly. Both mass and interpersonal communication are potentially positive or negative influences on the quality of people's political information environments.

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