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# SPECIAL REPORT

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## ABOUT THE REPORT

Part of the Blogs and Bullets series of publications from the Center of Innovation for Science, Technology, and Peacebuilding, this special report follows an earlier study by the authors—“Blogs and Bullets: New Media in Contentious Politics” (Peaceworks No. 65)—and is informed by the proceedings from a conference on the same topic held at USIP on July 8, 2010. The authors are particularly indebted to Sheldon Himelfarb of the Centers of Innovation for his support and contributions. Sean Aday is an associate professor of media and public affairs and international affairs at the George Washington University (GWU), and director of the Institute for Public Diplomacy and Global Communication. Henry Farrell is an associate professor of political science and international affairs at GWU. Marc Lynch is an associate professor of political science and international affairs at GWU and director of the Institute for Middle East Studies. John Sides is an assistant professor of political science at GWU. The authors thank Morgan Dibble, program assistant for GWU’s Institute for Public Diplomacy and Global Communication, for his assistance in putting on the July 8, 2010, Blogs and Bullets conference.

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## Advancing New Media Research

### Summary

- New media are powerful but have mixed effects on political organizations. To identify these consequences, we need to continue devising new frameworks of analysis.
- Knowing more about how new media relate to each other and to traditional media is critical.
- Being sensitive to the differences between, and relationships among, the various kinds of new media is also important. Blogs are different from text messages, and both are different from social networking sites. Categorizing these media in terms of their form and likely consequences would help advance research and policy.
- The consequences of new media for political polarization are especially important. Understanding when new media can have the one or the other consequence is key to future research and policy.
- Better research tools are urgently needed. Although some highly promising tools exist, they need to be developed so that they can parse languages other than English. New tools that can identify the tone of communication would help greatly but would also require major technological advances.
- The disparity between publicly available data on new media and those held by private companies (or, in some cases, publicly owned companies in other countries) is considerable. Public-private partnerships, or initiatives sponsored by well-respected nongovernmental bodies, are needed to create frameworks that would allow research on the consequences of new media.
- Studying new media raises a host of complex questions about privacy and accountability. Policy measures, such as encouraging actors to use new media in nondemocratic regimes, raise even more serious questions. Ethical guidelines for new media research and policy are badly needed.

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## Introduction

The debate about the political effects of new media has been dominated by an overly general clash between cyber-optimists and pessimists. A more rigorous way of thinking about the possible effects of new media on political conflict suggests five distinct levels of analysis: individual attitudes and competencies; intergroup relations, such as polarization or bridge-building; collective action, such as protest activity or electoral mobilization; regime responses; and external attention. This report seeks to generate new directions for new media research and policy.

## New Media: Powerful but Ambiguous

The research and policy community is ready to move on from the tired debate over whether new media help or hurt the spread of democracy in some universal sense. Overly optimistic statements by politicians in the 1990s and early 2000s have given way to a sober and cautious assessment of new media's consequences. Policymakers such as Alec Ross make it clear that the various new media can be important tools for foreign policy and civil society, but can just as easily have harmful and perverse consequences. New media, like the traditional media before them, are not hardwired for either dictatorship or democracy. They can be used by anyone. The long-term political consequences of such tools are difficult to discern.

If debate is to move on to more fruitful topics, attention needs to turn to the mechanisms through which new media can lead to social and political change. This means that questions will be narrower than those previously debated. Sometimes it will be more difficult to connect them to the outcomes that policymakers would like. One cannot, for example, easily say whether broader Internet access will lead to the spread of democracy. What can be done, presuming that better data is gathered, is to provide better answers to more specific questions.

Describing ways in which new media can affect contentious politics helps shift debate from a fruitless back-and-forth over fundamentally unanswerable questions to a more specific set of arguments over the consequences of new media. If other frameworks emerge, they should traverse the same intellectual terrain, and with the same level of specificity. This, in itself, is an important contribution to debate.

During related discussion, one important new set of relationships emerged that had not been theorized in the conceptual framework arrived at in our earlier report. The framework is fundamentally actor-centered, yet some important causal relationships are not. For example, the development of new media might plausibly lead to greater economic growth by making it easier for businesses to coordinate with each other or for information about prices to spread to previously isolated populations. This may in turn have consequences for democracy: a large literature argues that a country's level of economic development affects the likelihood that it can sustain democracy. These kinds of macro-level causal relationships are poorly handled by an actor-centered conceptual framework but may be important. Stretching the existing framework to include them would likely create a framework too loose to be useful. Instead, alternative frameworks might provide different perspectives and point to different useful questions to ask.

### *Understanding relations between and among media*

New media are increasingly important, but coexist with other channels of communication, ranging from the primitive (posters and samizdat-style news-sheets) to the relatively sophisticated. When thinking about the consequences of new media, we therefore cannot treat them in isolation. Sometimes other media may be more important or more robust. It may be

easier for a hostile regime to block access to Facebook during a period of social turmoil than to stop people from putting fliers on lamp-posts. Moreover, new media such as Twitter are still elite phenomena. Their consequences are likely to be greater if they diffuse messages that are taken up by traditional mass media, such as satellite television, that are available to a wider audience. Even those new media that have achieved widespread penetration—such as Facebook, with 500 million members, and YouTube—are often eclipsed by traditional broadcast television, radio, and newspapers.

Thus it is important not to fetishize new media as something unique. This is especially so because variations among the types of new media are pronounced. Whereas blogs typically (though not universally) have a strong textual component, YouTube and similar services disseminate audiovisual material. Even text-based new media differ. The primary limit to the length of a blogpost is the presumed attention span of the reader. Twitter, by contrast, has a hard 140-character limit. Phone-based text messages do not have such limits, but often do have associated pricing schemes and technical limitations (such as screen size) that encourage brevity.

An important task for future work is to create a taxonomy of both old and new media forms, examining the kinds of content they favor, the ways in which they allow authors to present that content, the forms of distribution they rely on, and the extent to which they allow feedback. This would allow researchers, policymakers, and activists to think more clearly about the likely consequences of different forms of media. For example, SMS messages (where they are not blocked) could prove more effective than blogposts in managing protests and demonstrations on the fly. SMS enables actors to easily compose and immediately send short text messages to an unlimited number of recipients, who may then forward them on as need be to even more people. SMS thus provides the flexibility necessary to respond appropriately to rapidly changing conditions on the ground. Blogposts, however, could prove more likely to influence media elites and hence spread complex ideas. Blogs allow for more lengthy development and expression of ideas and arguments, and are or can be easily read and excerpted by others who may then respond to the ideas, perhaps helping to refine them, in their own blogs or in another format. The various new media are therefore likely to have different consequences for social and political conflict. Additionally, certain new media may even resemble traditional media more than other new media.

### ***Dealing with political and social polarization***

New media can affect social conflict in many ways. One of the most important—and understudied—is political polarization. Evidence from the United States suggests that new media can lead to greater polarization in two ways. First, it may help individuals belonging to certain social groups identify and associate each other to the exclusion of others, a process known as homophily. Second, it may cause individuals within particular groups to harden their identities and form negative opinions about other groups. These negative opinions may be stickier because opportunities for cross-group social interaction in which negative stereotypes can be broken down are fewer.

The debate in U.S. politics about how much polarization has occurred and what is driving it is lively. The consequences of polarization within other countries—especially nondemocracies and frail democracies—may be considerably more dramatic, however. If new media help foster polarization, then they may threaten stability and contribute to intergroup hostility and conflict. If, however, new media can be engineered to encourage friendly interaction between members of different groups, then they may help cement peace rather than undermine it.

***The various new media are therefore likely to have different consequences for social and political conflict. Additionally, certain new media may even resemble traditional media more than other new media.***

There is some supporting evidence for both arguments. Two experiences involving the same technology (Facebook) and “frozen” conflicts in the same region led to opposite results. In one case, an activist found himself able to use Facebook to build new friendships across the divide. This was in part because he had signaled his willingness to criticize his own government’s inappropriate behavior. In another case, an activist found his efforts to build community ties rapidly shut down by angry nationalist rhetoric and hostile interventions. In this case, the two groups arguably ended up further apart than before. These very different outcomes could simply be the product of chance variation; social processes of trust-building may be statistically noisy and difficult to predict. Moving beyond anecdotes to a large number of cases can better establish when new media do and do not polarize citizens.

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## **Developing Better Research Tools**

To explore the consequences of new media, new research tools are needed. Valuable tools are available, but none of them yet accommodate a variety of languages and social contexts. Investment is needed to expand these tools’ capabilities.

### ***Content analysis***

New media researchers’ most basic need is to know what is being discussed and by whom. Media Cloud is one of a number of technologies that simplify assessing such trends over large datasets, as opposed to the painful hand-coding that has long been typical of content analysis. But it still lacks the modules that would allow it to be applied to societies at risk of conflict. Media Cloud needs to be several things simultaneously: comprehensive, to capture the appropriate universe of speakers; multilingual, to capture content in all the languages relevant to the conflict in question; and longitudinal, to show changes over time. Policy-makers such as Alec Ross emphasize the need for longitudinal data. To date, Media Cloud has been applied only to U.S. media sources, though a Russian language module is being developed. Researchers need more language modules, and quickly, so that they can map out a comprehensive picture of the important speakers, and begin to collect longitudinal data on these speakers. The need for language modules in Arabic, Chinese, Urdu, and Persian is especially urgent.

### ***Sentiment analysis***

To study contentious politics, it is not enough to know that certain issues or personalities are being discussed. The valence is also important: Are Sunni Iraqis mentioning Shi’a in the context of calls for sectarian massacre or of appeals for sectarian unity? Is a spike in online discussion of Israel in the Arab blogosphere about the prospect of peace or war? Sentiment analysis, unfortunately, has proven extremely difficult, with few specialists claiming better than 60 percent reliability, which is not enough for the purposes here. Recent efforts to build neural networks—artificial intelligence that can learn to decode the flow of conversation, could revolutionize this sphere—but such technologies do not yet seem to be available to researchers. This is a longer-term challenge for research—one that could benefit from substantial government investment.

### ***Meme-tracking***

Showing how ideas spread through a communication network is also crucial. Identifying, for example, how an incendiary rumor originated and then spread—and where its diffusion failed—would allow for more effective intervention to prevent conflict. MemeTracker, a

project run by scholars at Stanford and Cornell Universities, provides an important new tool that can not only track the spread of memes, but also show how they mutate over time. This could help policymakers identify the key interlocutors in given conversations. These, of course, may not always be the most visible activists. MemeTracker, however, is currently equipped to handle only English-language sources. A multilingual MemeTracker or similar program would enable genuinely new forms of research, such as discovering how memes change when they are translated across languages.

### ***Linkage patterns***

Knowing who is talking to whom, through the study of links across blogs or other platforms, facilitates the study of polarization, bridge-building, and the effects of social connections. Morningside Analytics has produced fascinating maps of the Persian and Arabic blogospheres, and others have mapped the U.S. political blogosphere. Current link analyses are typically snapshots, however. They examine the network at a particular moment in time or at only a few moments over a longer period. Analyses of linkage patterns over time would allow us to see how linkage patterns respond to events, as well as any secular trends in contact among social groups.

### ***Data visualization***

Both researchers and policymakers would benefit from tools that made it easier to visualize these new relationships. It is already clear how simple forms of visualization, such as wordclouds, illuminate the analysis of textual data. Jonathan Feinberg's Wordle program, and his presentation of the differences and similarities between different texts (such as State of the Union addresses), provides one model for how to do this. However, more study is needed to visualize the complex relationships that meme proliferation, linkage patterns, and sentiments produce.

Finally, new ways of systematically combining data generated by these tools, as well as by more traditional data sources, such as economic time series and surveys, are also critical. Equally important is how to combine these data with more qualitative approaches, such as those of cultural sociologists, constructivist political scientists, and anthropologists. All of this will require a major research impetus. Various bodies, including the U.S. government and the World Bank, have a demonstrated interest in applying and combining these tools to investigate mechanisms of social and political change. However, no single initiative or group of initiatives yet exists to coordinate these interests and thereby create a coherent set of new tools.

## **Working with Private Actors**

One key issue is the difficulty in obtaining data. The problem is not that such data do not exist, but that the largest and most important bodies of data are not publicly available. Instead, they are held by private businesses and state-owned telecommunications companies. These organizations are often reluctant to provide access to their data, for three reasons.

First, the data are often a key source of commercial advantage. Companies such as Google have shown themselves adept at using private data they have collated to create an edge over their competitors. Other companies have business models that are based on providing selective and limited access to this data to their commercial partners. Second, companies worry about privacy and reputational concerns. Previous instances of generosity to academia, such as America Online's willingness to share extensive search data with

external researchers, have backfired when it has turned out to be possible to identify the people carrying out specific searches. Damage to reputation and potential legal liability in privacy-friendly jurisdictions such as the European Union make businesses reluctant to provide access to data. Finally, some businesses, especially state-owned businesses in regimes hostile to the United States, will obviously be unlikely to provide data for national security reasons.

Limited data availability presents obvious problems for public research. Researchers tend to focus their efforts on platforms—such as blogs and Twitter—where it is relatively easy to scrape data. But these are not necessarily the most important platforms for certain kinds of political activity. For example, we know very little beyond anecdotes about the political uses and consequences of cell phone text messaging, but can plausibly expect it to matter. After all, text messaging is the primary method of communication for many young people. Researchers may face the proverbial challenge of the drunk searching for his house keys under the lamp post, not because he thinks that the keys are there, but because the area around the lamp is the only place where he can see anything.

This problem is difficult to solve. Governments and respected NGOs, however, can at least alleviate the situation through public-private partnerships. Here, <http://peace.facebook.com> serves as an interesting example. Facebook has worked with the Peace Innovation initiative at Stanford to provide aggregate data on Facebook friendships across difficult ethnic boundaries. Certain risks are of course associated with such cooperative projects. There may be a tendency toward selection bias. Businesses may be considerably more enthusiastic to share data that burnish their corporate image than data that suggest, for example, that their sites facilitate insalubrious forms of political mobilization. Drawing inferences from such data would be at best problematic. Nevertheless, with appropriate safeguards, joint projects could help provide data that would otherwise be unavailable.

## Addressing Ethical Issues

***It is important to note the real ethical issues for both researchers and policymakers, and that these have only begun to receive sustained attention.***

Finally, it is important to note the real ethical issues for both researchers and policymakers, and that these have only begun to receive sustained attention. Social scientists, as a general rule, are hungry for good data. New media provide data that may help social scientists answer many important questions about the relationship between tools of communication and political and social outcomes. Policymakers and activists are interested in changing societies, and sometimes do not pay attention to the unintended consequences of their actions.

Three cases may serve to indicate the general issues. One involves Pete Warden, a programmer who recently discovered a way to surreptitiously scrape Facebook data and map out a large corpus of information. This information could have been used for many legitimate social science purposes, but it could just as easily have been used to identify networks of dissidents, members of sexual minorities, or others who might want to protect their privacy. After a threatened lawsuit from Facebook for breach of its terms of service, Warden destroyed the dataset. The second involves a member of this project, who wrote a widely read article identifying bloggers belonging to a dissident group in a nondemocratic country. As both the author and the bloggers feared, publication of the article led to the arrest and harsh interrogation of the bloggers. The third involves the massive outpouring of foreign support for Iranians from American and European bloggers and Twitter users. This support may have encouraged dissidents in Iran to risk retaliation from the regime in the belief that they had support from abroad. Although this belief was justified, the support was primarily moral rather than practical, and not necessarily useful to those later arrested and tried.

The point here is not that there are any easy or obvious answers to the ethical dilemmas in research on new media and in policies guided by research. Instead, researchers need to start thinking about the basic principles that should guide them. It is essential to include not only policy practitioners and researchers but also ethicists and human rights experts in formulating ethical rules.

## Conclusions

We know how the new media could matter. The challenge is figuring out whether they do. To answer this question, scholars and policymakers need new tools. The first step is to begin counting—or at least counting in novel ways. Being able to identify who is talking, what they are saying, who they are talking to, and therefore how ideas are spreading provides the building blocks for a fuller account of new media’s potential. The process, however, must somehow also manage to protect the privacy—and security—of the individuals being identified. This is a delicate needle to thread, as controversies regarding Facebook and Google have shown, to say nothing of the way in which regimes like that in Iran have persecuted bloggers and other users of social media. The most accurate account must draw on a range of relevant cases—ones that capture new media’s power as well as its impotence, and its potential for alleviating or exacerbating conflicts. These cases in turn demand tools that work in multiple languages and that continually acquire and update the data they gather, constructing a richer longitudinal portrait of conflicted societies. Developing these tools is a task best suited to direct and indirect collaborations, both large and small, among researchers, businesses, and governments. New tools and better data will give policymakers the answers they need to execute truly successful twenty-first century statecraft: one that best leverages new media to promote democracy, economic development, and the successful resolution and prevention of conflict.

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## Other Publications of Interest

- *Blogs and Bullets: New Media in Contentious Politics* by Sean Aday, Henry Farrell, Marc Lynch, John Sides, John Kelly, and Ethan Zuckerman (Peaceworks, September 2010)
- *Preventing Media Incitement to Violence in Iraq* by Theo Dolan (Peace Brief, April 2010)
- *Media and Peacebuilding in Afghanistan* by Sheldon Himelfarb (Peace Brief, March 2010)
- *Managing Public Information in a Mediation Process* by Ingrid A. Lehmann (Peacemaker's Toolkit, 2009)
- *Media and Conflict: Afghanistan as a Relative Success Story* by Yll Bajraktari and Christine Parajon (Special Report, January 2008)



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