#**now**trending

Social media has already changed how we communicate. Now it's redrawing the frontiers of research as scientists mine it for clues to our political behavior

by Lindsy Van Gelder

The **YouTube** clips had an exuberant grit that was part Occupy Wall Street, part *Thelma & Louise.* Very few

videos actually showed the faces of those defying the Saudi Arabian ban on women driving; more often the camera lingered on an illicit but manicured hand at the wheel, the sleeves of a black *abaya*, or dice dangling from the rearview mirror. As the protesters and their friends tooled through traffic—some with rock blasting on the car radio—their excitement was palpable. "We're doing it—yes, we are!" piped up a voice from the passenger seat in one clip, breaking into gleeful English. Dozens of videos were quickly posted on various Twitter feeds: #Women2Drive, #Oct26driving, and #ربوتكا_ةدايق, which roughly translates as #26OctoberLeadership, and was, according to the Middle Eastern news service Al-Monitor, among the most popular hashtags in Saudi history.

Rewind back through the weeks building up to that 2013 drive, and it's clear that the campaign relied on a modern array of cybertools. (So did the women's opponents, who hacked the movement's website.) A male ally volunteered his smartphone to download WhatsApp, considered the messaging service of choice among Saudi housewives, which he then used to coordinate and disseminate videos; he was later arrested, and his incarceration and eventual release were followed throughout the Twitterverse (#FreeTarikAlMubarak). A Saudi-American comic launched a wicked Bob Marley video parody called "No Woman, No Drive," which went cross-platform viral.

Then, just days before the demonstration, Robin Morgan, host of the American feminist podcast *Women's Media Center Live*, received a private email from a dispirited organizer. Saudi clerics had long condemned women behind the wheel, and in September darkly warned that driving can damage ovaries and cause birth defects. In the past, the ban had been more a matter of religious custom than of civil law. Previous demonstrations had resulted in punishments ranging from women being escorted home and made to sign pledges that they wouldn't drive again to drivers (and their husbands) being barred from foreign travel for a year, denounced by name from pulpits across the country, and fired from government jobs.

Now there was a serious new wrinkle: The Ministry of the Interior had threatened to jail anyone who attempted to "disturb the public peace" by driving or even supporting the campaign online. Many worried it might now be considered treason, a capital crime. The Saudi organizer told Morgan that the government's escalation was "the worst blow ever for the [Saudi] women's rights movement during the last 30 years." Her compatriots were "devastated"—so much so that they were considering canceling the drive-in.

Morgan is a veteran activist—she organized the first feminist protest against the Miss America Pageant in 1968—and remembers when her only tools of communication were "telephone trees, mimeograph machines, leaflets, pay phones, and either mailing out press releases or walking them over to the [local paper's] city editor." But this time she recorded a three-minute audio clip, posted it to the Women's Media Center website, and linked to Twitter, anonymously quoting the woman who had emailed her and urging listeners to fax the King of Saudi Arabia and email the Saudi embassy in Washington, D.C.

The clip was in English but, Morgan says, "When we checked the downloads later, we noticed that there was one in Saudi Arabia." She subsequently learned that a young feminist there had heard the appeal and sent out a blitz of email. "[It] spread like wildfire," Morgan says. The demonstrators "realized that the outside world was behind them, and they decided to ride." The rest was digitally documented history.

During the same time frame last fall, countless other crises and campaigns dominated the news. The U.S. government shut down and reopened, the Obamacare website crashed, a gunman killed a TSA agent at Los Angeles International Airport and set off hours of panic, legislatures in Illinois and Hawaii voted for marriage equality, a typhoon ravaged the Philippines, and Nelson Mandela died. These and other events are increasingly experienced through the lens of social media, not just by outside observers, but by those on the ground. For instance, the main source of reporting during the LAX lockdown was the Twitter feed of an airport publicist (@LAX_Official); passengers relied on it for everything from facts about the shooting and its impact on flights to where those stranded could find water, personal belongings left behind in the evacuation, and even crisis counseling. Meanwhile they uploaded their own smartphone photos and real-time reactions to the info stream.

According to a May 2013 Pew Research Center study, half of the public now gets most of its news from the Internet. Some 56 percent of Americans own a smartphone, six out of every seven adults are online, and of those, 72 percent use social network sites such as Facebook, LinkedIn, Twitter, and Reddit. This new way of sharing life and information is no less momentous than the invention of the printing press.

And yet, this data explosion is not so easily accessed by researchers. Texts and emails are private, as are, to a lesser degree, people's Instagram, Flickr, and Facebook pages, where most users only show their posts to an invited, prescreened group. "This stuff is the dark matter of the social media universe," says Clay Shirky, associate professor at both Tisch's Interactive Telecommunications Program and the Arthur L. Carter Journalism Institute, as well as the author of several books on the effects of the Internet on society. "For instance, when the Red Shirts [United Front for Democracy Against Dictatorship] took over downtown Bangkok [in 2010], they used YouTube to document it, but the actual coordination was much more tied to texting."

If a text falls in the e-forest, and academics can't read it, does it exist? Maybe not, pedagogically speaking—but then there's Twitter.

"In Twitter, the idea is that you're a little website, a microblog that people can surf—that's the **beauty** of it,"

says Richard Bonneau, associate professor of biology and computer science. Very few people tweet privately, Bonneau points out. (A 2012 survey by the social media monitoring software company Beevolve showed that almost 90 percent of Twitter accounts were set to go out to the general public; a survey earlier that year of the newest 100 million accounts by the online statistical company Twopcharts indicated that the tendency to go public was steadily increasing, with only 2.3 percent of new users protecting their privacy.)
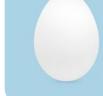
There is a great deal of other information that is not proprietary, although it often requires algorithms and large servers to cull en

masse. Users who tweet with location services can be "geotagged" to show their whereabouts. You can tell a computer program to collect all the messages from a particular time and place, or with a specific hashtag, or all the messages sent out by a particular tweeter, or all the retweets of that person—or slice and dice across myriad other categories.

That is exactly what Bonneau and his colleagues at NYU's Social Media and Political Participation (SMaPP) project are doing. The project, funded by a three-year $1 million grant from the National Science Foundation, is so interdisciplinary that it almost seems like a new discipline altogether, mashing up politics, social psychology, informatics, and computer science. (In addition to Bonneau, the principal investigators are Jonathan Nagler, professor of politics; John Jost, professor of psychology and politics; and Joshua Tucker, professor of politics and Russian and Slavic studies with an affiliate appointment at NYU Abu Dhabi.)

"We'll be looking at the impact of social media on political participation, running the gamut from joining a demonstration to giving money to a candidate to volunteering to voting—or not voting," Nagler explains.

The target may sound clear enough, but reaching it brings up endlessly rich lines of inquiry: Does reliance on mobile social media surge in a press vacuum? Is it different in a rich or poor country, a democracy, or a repressive society? Do we make political decisions differently when we can get instant feedback on whether 50 of our friends "like" or retweet the same information? Which is more important: the stuff we read in someone else's post or the act of posting something on our own? How do people figure out what information to trust, particularly when staring down police or soldiers with guns? These are the kinds of questions SMaPP wants to explore. "We've always known that the spread of information is important in protests," Tucker says. "But we could never, ever study information like this before in a systematic way."

The group has already discovered that Twitter users are pretty much who they say they are. Pablo Barberá (GSAS '15), a PhD student in the department of politics, matched several thousand public voter-registration records in Ohio against the Twitter accounts of people whose tweets had indicated their political leanings; he was easily able to predict an overwhelming majority of party registrations.

Although it's theoretically possible for government spies or ideological agents provocateurs to set up dummy accounts, transparency currently seems to be the unwritten rule. If anything, Barberá says, **"One thing that always surprises me online is how much people are willing to share.** They share their thoughts about everything—what they eat, what they're doing, when they're hanging out drunk with their friends. But it's great from a researcher's perspective."

SMaPP has also analyzed and charted the vocabulary tweeted by members of Congress (the researchers estimate that 96 percent of senators and representatives who have served in the current Congress have Twitter accounts). In general, Nagler says, congressional members haven't yet figured out how to use the interactivity of social media to raise participation or otherwise involve voters; mostly they tweet some version of their paper newsletters, "but shorter, and with much higher frequency."

In their news blasts, Republicans and Democrats tend to speak different languages. During the federal government shutdown, Republican senators and members of the House were far more likely to tweet the phrase "Obamacare." Republicans also talked a lot about "debt" and "spending" whereas, Nagler says, "for Democrats the key word was 'shutdown.' " Democrats' tweets also prominently featured the words "government," "end," "reopen," "default," and "bipartisan." There was one telling exception: a word cloud chart showing the tweets of those Republicans who eventually voted to end the shutdown looks virtually identical to that of the Democrats.

Another ongoing SMaPP focus is measuring how information changes over time—for instance, how quickly tragedies involving firearms devolve into political polarization. "It took about 20 days for the Newtown shootings to get heavily polarized," Nagler says, "although to put it in perspective, it never got as polarized as tweets about Romney or Obama or—the gold standard—tweets about the National Rifle Association."

But the project is not limited to domestic affairs. When Istanbul exploded into anti-urban development protests over the fate of Taksim Gezi Park last May, SMaPP researchers monitored some 2 million tweets over a 24-hour period. They found another surprise; unlike the Arab Spring, where the whole world was watching (and tweeting), most of the buzz was local. In fact, most tweets were in Turkish, Nagler says, and "a tremendous density of tweets came from inside or around the park." The researchers believe that what was happening was at least in part a form of citizen journalism, with participants live-streaming and live-blogging their own protest to compensate for the failure of the mainstream Turkish media to cover the story. At one point, the demonstrators even appealed to their fellow Turks to turn off their televisions in dissent of the slipshod coverage and then publicize their actions with #BugünTelevizyonlar_Kapat (#TurnOffTheTelevisionsToday). Their appeal garnered more than 50,000 tweets.

As SMaPP advances, Jost's psychology students will look at word choices within tweets. "There's research on inferring psychological states and characteristics," he explains, simply from the words people use. The data may make it possible to discern what *kinds* of messages are most likely to encourage people to participate in politics. And the project has also spawned new courses in both New York and Abu Dhabi. Undergraduates will study the Facebook pages of members of Congress, for example, and then go to Washington to interview their office staffs about their social media practices.

Tucker, the politics and Russian and Slavic studies professor, likes to note that for most of his career, his findings could be contained on an Excel spreadsheet: "Previously, our best sources of data were that we might get to ask a thousand or 2,000 people an hour's worth of questions, and if we actually got to go back to those people a year later, that would be amazing data. And if you could do that in 10 countries—well, there [were] only five to 10 data sets like that out there. And now, all of sudden, we have **millions of people in every country in the world talking multiple times a day and leaving behind digital records of what they're saying."** Even if only a small percentage of it is about issues of governance, he says, "it completely dwarfs what we've ever known about what individuals are saying about politics."∎

Online extra: Some crises that play out on social media are distressingly personal. Read the companion piece, "Trickle Up Texts," at nyu.edu/alumni.magazine.