

Civic Engagement on the Move: How mobile media can serve the public good

A Report of the Aspen Institute Roundtable on
Mobile Media and Civic Engagement

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Rapporteur



THE ASPEN INSTITUTE

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This report is written from the perspective of informed observers at the conference. Unless attributed to a particular person, none of the comments or ideas in this report should be taken as embodying the views or carrying the endorsement of any specific participant at the conference.

Foreword

Obama Girl laughs
In the flickr of my cellphone
Lost in the Twitter

—Anonymous, early 21st Century

Obama Girl, a cellphone *haiku*, critiqued two streams of thought prevalent at the time (1) a *dystopian* analysis that social fragmentation was causing individuals to retreat from meaningful civic engagement with others, and (2) a *utopian* view that innovations in media and communications were powering new forms of social engagement.

Literary critics agree the author was untrained in *haiku* and confused flickr, Twitter and YouTube. Unresolved is intent: Was the author dismissing technology, or simply confessing his own inability to cope with change?



Obama Girl (the poem) captures the fears, realities and dreams expressed by a hand-picked group of smart people during the Aspen Institute Roundtable on Mobile Media and Civic Engagement, which was convened by the Aspen Institute Communications and Society Program and San Francisco State University's Center for Renaissance Journalism. They were asked to untangle a puzzle: How can we take advantage of the dramatic surge in the use of cellphones and other mobile media devices to draw people out of their cocoons and into activities that benefit community?

The event was held December 10-12, 2007 in San Francisco, the virtual epicenter of the digital revolution. It drew 25 leaders from digital media, journalism, the non-profit sector, philanthropy, academia and government. Some are experts in digital media, journalism and communications

technologies; others are leaders in the broader society affected by these innovations. Through a roundtable discussion format, they were asked to focus their wide range of experiences and expertise on the puzzle.

In the following report, J.D. Lasica, author of *Darknet* and co-founder of *Ourmedia.org*, skillfully captures and contextualizes the flow and spirit of the discussions. I was privileged to play a small role in this endeavor. Charles Firestone, the executive director of the Communications and Society Program, was the real mastermind. As moderator, he guided the participants through the maze of issues and opportunities. It began with a sobering reminder of some of the social changes taking place in today's society, from the well-documented decline in voting participation to the troubling conclusions of Harvard University political scientist Robert D. Putnam that increasing diversity within a community leads to decreasing tolerance and trust of one another. It moved on to an examination of the startling growth in cell phone use, both domestically and globally, and their potential, seemingly unlimited capabilities.

The roundtable format led to disclosures and insights about problems and barriers that impede the implementation of many good ideas about how to use cell phones to serve community needs and to energize the civic process. For starters, the closed nature of U.S. cell phone networks creates barriers that make it necessary for the experimenter to negotiate separate deals with each carrier. Vast swathes of rural America still lack broadband service. Some nonprofit groups say the rates charged by cell phone companies for text messages are too high for them to use this technology effectively. Compared to their counterparts in Japan and the United Kingdom, U.S. schools and their teachers have been slow—some conference participants said afraid—to embrace the potential of cell phones as learning devices. The list seemed to go on forever.

Add to these problems the human dimension: for every individual who is eager to try the next gadget, gizmo or breakthrough, there are others who are uninterested, unable or simply lagging behind. I confirmed this in an informal survey of friends and associates, most of

whom are quite technically literate, yet limit their use of cell phones to calls and an occasional text message or snapshot. “Having never tried Twitter, I can say that it looks like my worst nightmare—an endless source of distraction by minutiae,” said one colleague. One interesting use that turned up in my survey: Some women use cell phone cameras “like a mirror” to check their hair and makeup, said one friend, who quickly added that *she* doesn’t do this. Finally, one friend nearly har-rumphed back in an email message, “Sometimes it’s a useful paper-weight on my desk.”

In other words, for some people, the cell phone remains a device for personal communications and purposes, not a *civic* tool.

On the other hand, inspiring news came in the stories about how leading edge practitioners are using mobile media to engage citizens to solve problems, bridge differences, report, give voice and strengthen community. In San Francisco, the SexINFO project provides teenagers with information about sexual health issues by sending private text messages—free from the prying eyes of others—to their personal cell phones. In Myanmar, citizen journalists used their cell phones to expose to the world the government’s crackdown on pro-democracy protesters.

There was mounting evidence that many people—especially youth and the previously disempowered—were learning to use cell phone messages, snapshots and videos as a way to express their political views. Certainly that was being demonstrated by the thousands of young people and others drawn into the 2008 Presidential primary campaign. The Obama Girl video was released about six months prior to the Aspen Institute conference. Although more of a publicity stunt than an act of political activism, it certainly generated interest in the election process. More to the point, the campaigns of Senators Obama, Hillary Clinton and John McCain all turned to the Internet to woo new supporters and donors. In Spain, the Philippines and Iran, people use blogs, texting and email to vent political opinions or organize protests, sometimes surreptitiously and at great personal risk.

Armed with the insights shared across the table, the participants joined in a kind of incubator exercise, proposing some new ways to use mobile media devices and even offering to develop some pilot projects. The ideas and potential solutions that arose are quite interesting. Taken all together, the conference and this report offer a snapshot in time of the role that mobile media are playing in community and the civic process. It also offers some ideas about where we might go in the future, with the post-conference launch of the EdText application demonstrating how these ideas can become reality. We hope that the socially beneficial and innovative projects and ideas described here inspire others to strengthen connections within their own communities. We invite you to read, to post and to Twitter. Obama Girl would be happy.

Jon Funabiki
Director
Center for Renaissance Journalism
San Francisco State University

Acknowledgments

On behalf of the Aspen Institute Communications and Society Program and our partner, the Center for Renaissance Journalism, I would like to thank the Ford Foundation for its sponsorship of the Roundtable on Mobile Media and Civic Engagement. We appreciate the Foundation's long-standing commitment to strengthen and promote civic engagement around the world.

I gratefully acknowledge the participants in the Roundtable—all are listed in the Appendix at page 85—and thank them for their valuable insights and participation. Each person brought to the conference a wealth of experience and a dynamic, positive energy to thinking about adapting mobile media to the challenge of strengthening civic engagement. I want to acknowledge and thank J.D. Lasica, our gifted rapporteur, for integrating a wide-ranging set of discussions into a well-written, interesting report. We acknowledge and thank the participants who contributed the additional resource materials that appear in this publication: Jed Alpert for “A Mobile User’s Guide,” Joaquin Alvarado for the Ed Text segment, Barbara Cohn-Berman for the ComNet case study, Deb Levine for the SexINFO case study, and Katrin Verclas for the “Mobile Advocacy Dos and Don’ts.”

Jon Funabiki, director of the Center for Renaissance Journalism at San Francisco State University, has been a valued partner and the source of great encouragement and wisdom in exploring the civic implications of new media technologies and new social practices. We thank him for his contributions, not the least of which is the Foreword to this report.

Finally, I want to acknowledge with appreciation the management and hard work of the Communications and Society Program team who produced the Roundtable and this report: Kate Aishton, project manager; Patricia Kelly, assistant director of the Communications and Society Program; and, with special thanks, Amy Korzick Garmer, director of journalism projects, for designing the agenda and editing the report.

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The Aspen Institute

**CIVIC ENGAGEMENT ON THE MOVE:
HOW MOBILE MEDIA
CAN SERVE THE PUBLIC GOOD**



Civic Engagement on the Move:

How mobile media can serve the public good

J.D. Lasica

Introduction

Conventional wisdom holds that the growing influence of mobile media has contributed to the steady dissolution of society's civic bonds. The creeping sense of disengagement was documented recently in a Duke University study that found we are feeling far more socially isolated today than we were two decades ago.¹ The more we hunker down by checking stocks and scores on our iPhones, sharing our photos on Flickr and jabbering into our Razr phones, the less likely we are to hold a conversation with a stranger, volunteer at a homeless shelter or join a political cause. Or so the argument goes.

But what if the reverse is true? Growing evidence suggests that people—particularly the young—have begun using mobile devices in ways that help to strengthen civic engagement, undergird social participation and buttress our sense of belonging to something that transcends the self and the clan. This report will look at how mobile technology offers opportunities to broaden our ties to communities, both virtual and traditional brick-and-mortar.

For example, in San Francisco volunteers fan out across the city with wireless smart phones to conduct surveys and counsel men about high-risk sexual practices. In New York, residents use mobile to report hazardous street conditions directly to the agency responsible for fixing the trouble spot. Activists the world over are using mobile devices to recruit millions of people to contribute to and participate in social causes. In San Diego, volunteers are carrying around small devices that monitor air quality. In South Africa, thousands of people used their handsets to find out whether indulging in the catch of the day at the local supermarket or restaurant posed a threat to the environment.

Mobile phone usage continues to grow at an eye-popping rate. With more than 2.7 billion of the devices in use, and with a billion more

handsets expected to be sold this year, nearly half the world's population will be using a cell phone by the end of 2008.

But to what end, and with what effect? We are only now beginning to appreciate the potential impact that the rise of the Mobile Generation, young people currently coming of age in a mobile-enabled world, will have on cultural discourse and on our civic interactions.

To help sort out that puzzle, the Aspen Institute Communications and Society Program convened 29 thought leaders from business, academia and the non-profit world at a roundtable in San Francisco on December 10-12, 2007. The participants tackled a number of questions: How does increased mobility impact our willingness to engage people with different backgrounds than our own? What is it about mobile that sets it apart from other media platforms? How are civic values, such as trust and reciprocity, preserved in the mobile media environment? How are citizen journalists who use mobile devices reshaping the enterprise of journalism? How are mobile technologies being put to good use on the streets to advance social justice?

The roundtable also touched on a subject that many participants believe will increasingly move to the fore of public debate in the coming years: freedom to communicate data on any subject to friends and colleagues, using any device, over wireless networks. The public is still largely unaware of the bifurcated nature of U.S. laws governing telecommunications: common carriers, which cannot discriminate against communications over land lines, and the largely unregulated wireless industry, which can decide what data and interactions to allow on their networks. Freedom of speech and freedom of association are among the touchstone issues that bear close watching in the mobile space in the years ahead, the Roundtable participants agreed.

Near the end of the conference, participants broke into small working groups to devise ways in which mobile media can be adapted to address the needs of different constituencies: political activism, education, journalism and communication, the public health system, other mission-driven community services and the dawning era of m-governance (m as in mobile). The specific action recommendations are detailed in the final pages of this report.

Setting the Table: Mobile Media and Community

Mobile media are becoming part of our daily routine in a multitude of ways, with consequences both positive and negative for community life. When a new technology like mobile telephony explodes into widespread use, society can expect more than a mild disruption. But what, exactly, is the status quo that mobile is disrupting?

In his 2000 book *Bowling Alone: The Collapse and Revival of American Community*, Harvard University political scientist Robert D. Putnam argued that since the 1960s the United States has undergone a major collapse in social capital—chiefly through declining participation in our civic, social and political institutions—with serious negative repercussions. Putnam drew a distinction between two kinds of social capital: bonding capital, which takes place when people socialize with people like themselves, and bridging capital, which occurs when people befriend diverse strangers.

Jeffrey Abramson, professor of political science at Brandeis University, told the gathering that recent findings by Putnam led to two gloomy conclusions: First, that bringing people of diverse backgrounds together in modern cities has led to less trust and tolerance of each other. Second, and more surprising, city life produces atomization even within one's own peer groups—people of the same race, gender or age. That is, the more people get to know and interact with each other, the more they hunker down, retreat into their shells and withdraw even from those they believed they had connections with.

Putnam's research, based on interviews with some 30,000 U.S. residents and fully released in a 2007 paper, concluded that the more diverse one's community was, the less likely residents were to vote, to volunteer in community projects, to give to charity, to trust local officials or the local news media, and to make close friends.²

Not everyone agrees with Putnam's conclusion that America's civic vitality is on the wane. For example, critics of his thesis hold that the rise of the Internet and the growth of small interpersonal networks

“We need to push back and resist the obvious ways in which mobility can lead to a kind of drift in society.”

Jeffrey Abramson

more than make up for the decline in large, formal civic, social and fraternal organizations such as bowling leagues or Elks clubs.

Now add mobile communications to this already muddled picture. Can mobile lead to more cohesion, bonding within groups and bridging across new groups? Said Abramson: “One open question for us is this: Are there ways in which the new mobile technologies can bring about alternative ways to prop up meaning, deliberation and a sense of commonality, or will mobility ultimately produce growing ruthlessness, atomization and a sense of identity that looks inward instead of outward? We need to push back and resist the obvious ways in which mobility can lead to a kind of drift in society.”

Coming together for solidarity and affinity

The impact of mobile communication technologies on social groups heightens some preexisting dimensions, argued James Katz, director of the Center for Mobile Communications Studies at Rutgers University. “People want a sense of belonging. In their social group you’ll see a lot of short, quick contacts as a way to improve in-group solidarity among existing members while making the entry costs higher for outsiders. While the dream has been that mobile communication will help to resolve misunderstandings and reach compromise and tolerance between groups, the reality is that as more information is exchanged, the boundaries become reinforced and intemperate words can often escalate into strident exchanges, resulting in increased polarization between groups.” Mobile helps to bond those with similar affinities, but in the United States so far it has shown little ability to bridge differences, he said.

“Mobile technology has done a tremendous amount to improve the world and on balance it’s had a positive effect,” Katz added. “Look at the rallies on immigration that brought people together in Los Angeles and elsewhere aided by mobile communication. We admire or dislike how these groups come together based on whether or not we agree with their cause. But in the end, mobile is helping to spur more of these kinds of spontaneous civic actions.”

William T. Coleman, founder and CEO of Cassatt Corp., was among those who pointed out that we move in and out of hundreds of identities during the course of a year, much less a lifetime. The Internet and mobile communication help facilitate bonding with new groups for

short bursts of time and attention. “My identity for a short period of time last year was wrapped up in prostate cancer, and I was able to connect with a large number of people all over the world and get lots of valuable advice. I’m no longer identified with that issue. We move into new roles and form new bonds much more frequently now in the long tail. I suspect that bridging across groups or identities is more of a social issue than a technological one.”

Charlie Firestone, executive director of the Communications and Society Program at the Aspen Institute, observed, “It’s almost a kind of swarming—people with common interests coming together for a time, exchanging information and then moving on.”

One defining characteristic of the Mobile Generation has been that mobility leads to a kind of rootlessness. “People change jobs all the time, they move around and they’re less tied to a particular place,” said David E. Lee, executive director of the Chinese American Voters Education Committee. “The younger generation in particular feels that they’re mobile citizens leading lives of hyper-portability, and that translates into less of a sense of civic responsibility to a place or institution. It appears that they’re much less willing to become members of a community organization; however, they’re willing to be sponsors or contributors.”

Leslie Rule, who runs the Digital Storytelling Initiative at KQED, San Francisco’s PBS station, suggested that mobile media can play a large role in engaging young people in their own communities. Holding aloft a mobile phone, she said, “These devices are receivers and communicators. They allow documentation and reflection. So we should be considering how to engage young people who are deeply disenfranchised by encouraging them to document the stories of their communities. These kinds of contributions to a collective knowledge could become a powerful form of civic engagement.” High schools should play a role in fostering this kind of creative participation, she said. “By the time the kids are 18, it may be too late to engage them.”

Joaquín Alvarado, director of the Institute for Next Generation Internet at San Francisco State University, urged the roundtable to focus not just on the mobile media end of the equation but to explore new dimensions of civic engagement that are now becoming manifest. “The dominant frame of reference for civic engagement was created by the baby-boom generation, and we’ve been living on fumes for 30 or 40

years. Mobile has the potential to replace those motifs with a new dialogue about social accountability, political dialogue and what kind of citizenship we want to have.” Mobile is not a new space but an extension of the space that we already occupy, he said. “In a nation with 300 million residents and innumerable small subgroups, economies and regions, are we presupposing a cohesion that isn't there? The deeper question is, what kind of democracy do we require of ourselves?”

Glimmers of What's Ahead: Mobile Media in the Wild

Participants in the roundtable drew from their own experiences and recent episodes in the mobile space to outline the ways in which mobile media can be used to tease out a greater degree of social participation by citizens. Here are a few examples of such innovative use of mobile media:

- health and educational uses, such as prevention of sexually transmitted diseases;
- political causes, such as organizing precinct turnout in an election;
- campaigns around consumer products, the environment and unions;
- charitable giving;
- citizen journalism through text, photos or video captured on mobile devices;
- artistic and creative uses of mobile communication;
- data collection in the field;
- financial transactions;
- entertainment programming that carries a message or call to action;
- religious and spiritual uses, from locating Mecca to requesting special prayers.

To assess the impact that mobile media are beginning to have on the civic landscape, it may be instructive to look at some of the ways that mobile devices are already being deployed to foster dialogue and social participation.

In the ongoing STOP AIDS Project, volunteers fan out across San Francisco with wireless Palm Treo smart phones containing a survey on sexual practices. Volunteers seek out men at bars, parks, gyms and elsewhere and engage them in conversation about their sexual habits and then transmit the survey results to the city's Department of Public Health. Before the program began, field staff collected paper surveys, and the input process took months. STOP AIDS reduced the turn-around time for processing this public health information to two weeks.³

Barbara J. Cohn Berman, vice president of the Fund for the City of New York and founding director of the Center on Municipal Government Performance, described one of the oldest government-supported programs: ComNET, founded in 1998. The effort is designed to enable community organizations to report easily troublesome conditions on the street, such as broken street lights, abandoned cars and the like. The reports are sent to government agencies and organizations responsible for fixing the problems.⁴

"The goal was to demonstrate to governments that you could use measures that cut across agency lines and to encourage them to cooperate with one another," Cohn Berman said. "It has resonated—we have a long list of people who want to take advantage of the program." In one district, she said, residents complained about rusted lamp posts that were a blight on the neighborhood. The municipal agency told them the city was on a seven-year painting cycle for lamp posts and their area was not due to come up again for four years. The residents continued to press, offering to paint the lamp posts themselves, but the agency cited union problems as a barrier. The residents kept pressing the issue until the agency finally reversed itself. The group raised \$1,000 and painted the posts themselves. "Now, the city is giving all kinds of community organizations paint to paint their lamp posts," she said. "So persistence paid off. Both sides have to listen." Mobile technology aided the effort by providing precise geographic coordinates and helping agency personnel conduct detailed surveys of affected areas.

Similarly, the ParkScan project launched by the Neighborhood Parks Council of San Francisco uses web-based technology to improve the maintenance and usability of the city's community parks and playgrounds, enabling residents to track online how the issues they identified are being resolved. The council is waiting for the widespread roll-

out of municipal wireless, which would let residents file complaints directly from any of the hundreds of parks and playgrounds right when they notice a problem.⁵

Through its youth programs, the San Francisco-based Bay Area Video Coalition (BAVC) offers teenagers in low-income communities the training and support they need to find their creative voices, explore career choices and contribute to their communities. (In addition to its youth services programs, the BAVC also serves independent media makers and their stories.) Working with contingents of youths from two local high schools, BAVC helped to establish wireless towers to support video projects the students captured through their Nokia wi-fi mobile devices, said roundtable participant Ken Ikeda, executive director of BAVC.

BAVC launched a Digital Sister Cities initiative with the city of Paris to serve at-risk youths in Paris. The projects, conducted with the organization Reseau 2000 and the Institute for Next Generation Internet at San Francisco State University, included a mobile music video, a cultural exchange trip through which 12 youths from Paris visited the Bay Area and an ongoing series of programs around mobile media production and wi-fi applications. In addition, once San Francisco launches a municipal wireless service, BAVC will be working with the city government and Nokia to enable low-income high school students to tell stories relevant to their lives through the WiFiAnywhere program.

Ikeda also offered an example of mobile technology that lets people contribute to their community's well-being. At University of California, San Diego, technologist Shannon Spanhake devised a pollution sensor that lets people instantly monitor the air quality around them and report the result via mobile device. The small, battery-powered device, called Squirrel, can be clasped to a belt or purse and sample pollutants with its on-chip sensor. It currently measures levels of carbon monoxide and ozone in the air but will also eventually be able to sample nitrogen oxide and sulphur dioxide, as well as measure temperature, barometric pressure and humidity. The results are fed through Bluetooth to the user's cell phone, which periodically transmits the environmental data to a public database on the Web.⁶ An earlier version, called Airbud, was soldered directly to a cell phone. Similarly, in early 2007 the National Alliance for Hispanic Health began offering a program that

allows users in certain cities to text AIR and their zip code (e.g., AIR 90001) to receive hourly pollution reports for their area.⁷

A similar project called the Health and Environment Action Network, run by the National Alliance for Hispanic Health and the group Environmental Countdown, equips youth volunteers around the country with an “Eco-Pac” containing mobile pollution sensors, global positioning system (GPS) devices and video cameras. The youths then go out and take readings of air and water pollution, using the GPS devices to record their exact location. People then get real-time pollution data texted to their phones, helping to raise awareness about pollution levels in local communities.⁸

CASE STUDY

Computerized Neighborhood Environment Tracking (ComNETsm)

Origin

Focus group research about how the public judges local government performance has been conducted by the Center on Government Performance starting in 1995. One of the striking, consistent findings is that people judge government and cities by an array of commonly observed street conditions such as the presence or absence of litter, graffiti, potholes, rodents, working street lights, walkable sidewalks, broken benches, abandoned vehicles, dumping of refuse in vacant lots or on the roadways, visible traffic signs, etc. Usually, many different governmental agencies, public utilities, businesses and private individuals have responsibility for curing the problems (or causing them).

The need

Before ComNET, there were no mechanisms to bring all troubling street level information in one place so that they could be addressed economically and systematically. There were no government performance measures that crossed agency jurisdictions. While neighborhood residents and business people may report an

individual problem, there was no way for government to learn of community-wide concerns and priorities. Community surveys, when undertaken before ComNET, required interested groups to create their own survey instrument and methodology, use paper and pencil to note findings, decipher often illegible penmanship, collate the notations and, if interest hadn't waned by then, produce some type of report. These time-consuming efforts were often abandoned mid-way, even though the need and desire for community improvement was strong.

What ComNET is and What it Does

ComNET uses mobile technology to facilitate successful citizen engagement and community improvement. It introduces easily operated off-the-shelf handheld computers with synchronized digital cameras to community groups, along with route maps and just-in-time training so that they can quickly and accurately capture street level conditions in text and with a digital image, record, tabulate and review their findings, vet them to determine community priorities, refer problems to appropriate agencies in a variety of ways, produce reports, develop community action plans and monitor changes over time. Our customizable software that is loaded onto the handheld devices contains the specific street names for the survey area and the street features and problems of concern to each neighborhood. When data are uploaded to our web-enabled database, known as *ComNET Connection*, the names of the agencies and organizations responsible for ameliorating the problems are associated with each problem found. (People often don't know who is responsible for what.) From that same database, local groups can produce clear reports including spreadsheets sorted by type of problem, location, and agency responsible. *ComNET Connection* also enables communities to produce one-page attractive bar and pie charts for use in presentations and reports. Reports may be transmitted to government and other organizations electronically if they have the capacity to receive them that way (not all governments have that capacity). The City of Des Moines, for example, is

able to accept data collected by its neighborhood groups that are transmitted electronically directly into the City's complaint system; work orders are then generated to address the problems.

Results

The organization found instant enthusiasm and interest in using ComNET in residential, commercial and industrial areas and among people of all ages and educational levels. ComNET started work in New York City and then found that visible street level conditions were significant to people in cities throughout this country and beyond. To date, ComNET has been introduced into 83 neighborhoods in the U.S.; 30 in areas outside New York, including Durham; Des Moines; Irving, TX; Seattle; Yonkers, NY; and Worcester, MA. It has inspired adaptations for parks in San Francisco and places in Connecticut, Philadelphia, Japan, Australia and the United Kingdom. People with no prior computer experience are able and willing to use the handhelds right away. Using the *ComNET Connection* database requires somewhat more computer sophistication, but we find that people learn fast and love its remote accessibility.

Responses from local government officials vary. Most recognize the good faith effort involved in this technology-driven, citizen-initiated civic engagement program. The reliable, verifiable data and appealing reports encourage government and the groups to have constructive discussions about the problems and issues raised. A whole range of actions have resulted from ComNET surveys including installation of pedestrian ramps; cleaning up of vacant, debris-strewn and vermin infested lots; removal of graffiti; replacement of missing sewer grates; repair of potholes, sidewalk trip hazards, broken fire hydrants, lampposts and benches and approval of a \$6 million project to reconstruct a street.

There is no doubt that the handheld computers enabled this program to become what is it today—a growing force in linking citizens with their government to produce information they both can trust and to engage in constructive communications and community improvements.

The organization observed some major changes in the prevailing culture and attitudes from the perspectives of both the public and government towards one another in the course of using ComNET. As people learn what is and isn't government's responsibility, dissatisfaction is often replaced with understanding. When conditions are remedied by government, negativism is replaced with appreciation. As community groups learn what is and isn't immediately possible, they make their own choice to either accept the situation, seek alternative solutions including undertaking some repairs themselves such as painting decrepit lampposts, or act to change government's priorities.

ComNET and Youth

ComNET is a very powerful civic engagement and educational tool for young people. ComNET works with schools, nonprofits and community organizations that provide afterschool and summer youth programs for youngsters ranging in age from 11-19. "ComNETing" as some of them call it, provides them with a means to improve their neighborhoods while also giving them real life experience working in teams, learning about government structure and functions, producing and making presentations, developing advocacy strategies, learning the importance of attending to detail and seeing the big picture, working with math, databases, interpreting data and more.

Why is ComNET in such demand?

- People relate to ComNET because everyone sees or experiences the streets; therefore conditions on city streets become a widely accepted proxy for government effectiveness. Focus group participants made it clear that when people encounter dangerous or unsightly problems on the streets, they feel that government is not working well.

- People like technology when it is easy to use. ComNET users agree that it is and the organization incorporates user feedback to keep improving the process.
- Community groups like having control over the data and reports of their findings (each has its own account in *ComNET Connection*).
- People appreciate that they do not have to seek out and develop the technology and figure out how to use it. The organization provides them with what they need, when they need it.
- Communities and government readily recognize that ComNET's reports are a far improvement from paper surveys and random complaints.
- ComNET is an unemotional way to refer problems to government. It provides incontrovertible facts and pictures about street level conditions.
- With ComNET data, government can respond more efficiently, addressing multiple problems in the same neighborhood.
- ComNET helps bridge those gaps of communication and understanding between government and the public.

ComNET was developed and is supported by grants from the Alfred P. Sloan Foundation. Participating organizations and governments are charged a fee; however ComNET is not self-supporting and requires philanthropic support.

Prepared by Barbara Cohn Berman

Political uses of mobile media

Mobile media have also been making waves on the political front. In 2004 Tad Hirsch of MIT's Media Lab and John Henry of the Institute for Applied Autonomy unveiled TXTmob, a text message broadcast system for mobile devices. The service was designed with flexible, configurable settings to allow people to create on-the-fly groups around any event or cause. During the 2004 Republican National Convention, participants used TXTmob to create several flash mob-style actions. As Hirsch and Henry related:

The largest of these was the "a31 street party," which had 509 members. Organizers notified participants of the time and place minutes before the planned action. TXTmob was subsequently used to coordinate actions by the mob, as evidenced by this series of messages:

- A31 party mtg at 2 spots NW corner of Stuyvesant park, 2nd & 16th and SE corner of Union Sq
- a31 party Penned in b/w irving and 16th. more in next message
- a31 party disperse immediately

Organizers also established "comms" networks—highly structured information dissemination mechanisms aimed at providing reliable information from trusted sources to activists in the street. Both DNC and RNC protest organizers established fairly strict communications protocols. For example, the NYC Comms Collective (NYCC) relied on a network of bicycle-riding lookouts that maintained constant communication via cell phone and 2-way radio. Information was relayed to NYCCC operatives at a secure location, who then broadcast to the 901 registered members of the NYCC mob. Only messages that came from NYCC members or from other trusted sources were broadcast. Messaging was used primarily for sharing actionable information, such as march status, locations of police barricades, and arrest information:

- Police moving fast Westbound on 23 St toward the bike bloc
- War Resisters League March is at Fulton and Church approx 250 ppl, will leave shortly
- Run against Bush in progress (just went through times sq). media march starts at 7, 52nd and Broadway⁹

Mobile devices have been put to effective use in a wide range of well-publicized situations on the international stage. During the 2000 presidential election in Ghana, people used their cell phones to report eyewitness accounts of intimidation at polling stations to local radio stations, helping to squelch the thuggery.¹⁰

Mobile media may have made a decisive difference in Spain's national election in March 2004 that followed the tragic al Qaeda Madrid train bombings. Following the governing Popular Party's initial statements that the bombing may have been done not by Islamic terrorists but rather by Spanish separatists, "massive protests...materialized due to the unique, spontaneous organizing power of text messaging and email," according to a recent report:

Millions of text messages and emails were sent, some pro and some anti the government. On the day before the elections, text messaging was at 20% higher than it would be normally. On Election Day, 40% higher. And, in a surge of voting that went up to 77% voter turnout, the Popular Party—which was widely expected to win the election—lost decisively, after which the International Herald Tribune headlines wrote 'Cell phones may have tipped the scales in Spanish election.'¹¹

Text messaging appears to be one of the few effective forms of political expression to challenge the tightly controlled government of Iran. President Mahmoud Ahmadinejad was incensed when an anonymous, widely distributed text message made it to his personal mobile phone suggesting he didn't bathe enough, according to a report.¹²

In the Philippines, mobile action around political campaigns has become commonplace. In 2005, an entire election was deeply affected by a political zinger of a ringtone implying that the incumbent was guilty of vote rigging. It was downloaded by more than 1 million peo-

ple.¹³ In 2006, Philippines President Gloria Macapagal Arroyo became the target of a text messaging campaign by opposition protestors alerted by text messages.¹⁴ Those protests carried over into 2007.

In May 2006, volunteer monitors in Montenegro used short message system (SMS), a form of text messaging, as their main election reporting tool. In August 2007, 500 election observers at polling stations throughout Sierra Leone used SMS on the mobile phones to report any irregularities in the country's national election.¹⁵

Here in the United States, all the major campaigns for the 2008 presidential election are outfitted with mobile capabilities. On the night of the Iowa caucuses on January 3, 2008, the swell of voters supporting Sen. Barack Obama "was largely attributable to his Iowa ground troops— young volunteers armed with cell phones, wireless Web connections and warm coats who out-organized the veteran Clinton campaign in turning out their respective voters. Obama was the first candidate to introduce text messaging as a campaign tool," *eWeek* reported.¹⁶ Obama sent out a text message to his supporters before he came down to give his Iowa victory speech. During the 2008 primaries and caucuses, text messaging became a widely used tool for campaigns' get-out-the-vote efforts. Supporters of the Obama campaign could text "hope" followed by a five-digit number and then enter their zip code. In return, they were told when the next rally was scheduled for, where the nearest caucus or polling station was located and how to volunteer in the campaign. Not to be outdone, Hillary Clinton's campaign relied on its army of cell phone users to make 2 million calls in the weekend before the California primary.

During 2006, rallies in dozens of cities protested proposals to build a 700-mile fence between Mexico and the United States. Though the larger protests were organized in the traditional manner—through unions, churches, Latino organizations and Spanish language radio—there were also hundreds of smaller protest actions that took place without the apparent involvement of any central organization. The smaller events, involving tens of thousands of mostly high school students in cities across the nation, were driven by Internet social networks and mobile text messaging. For example, the *Associated Press* reported, "In Las Vegas, police and school officials said at least 3,000 students, drawn together by text messages and cell phone calls, left high schools, middle schools and a community college after the morning bell."¹⁷

Mobile media's ability to impact political causes is becoming more apparent by the day. In August 2007, pro-Tibet protestors used the Internet and mobile devices to elude Chinese censors. Students for a Free Tibet sent live cell phone videos of them rappelling down the Great Wall of China and unfurling a banner that read, "One World, One Dream, Free Tibet 2008." The footage was sent using Internet software Skype, assembled in New York and posted to YouTube, giving the protesters an immediate global forum for their cause.¹⁸

In September 2007, word of the street protests by monks in Myanmar (the former Burma), and the government's subsequent crackdown, was suppressed inside the country and initially downplayed abroad because of the foreign media's inability to transmit footage or images under the ruling military junta's crackdown. Despite those efforts, the *Wall Street Journal* reported, citizen journalists armed with cell phones managed to beam news of the protests and the government's harsh response to the world. "Citizen witnesses are using cell phones and the Internet to beam out images of bloodied monks and street fires, subverting the Myanmar government's efforts to control media coverage and present a sanitized version of the uprising," the paper reported.¹⁹

Mobile information services for the public good

Along with participating in political causes, people have begun using mobile devices as part of their daily routines. Organizers of environmental, union and consumer product campaigns have begun leveraging mobile technologies to give their members and kindred spirits the power to access information on demand—and to act on it.

Jed Alpert, co-founder and chief executive officer of Mobile Commons, pointed to FishMS, a text service in South Africa that was set up to help consumers choose seafood with the least adverse impact on the environment. A conscientious consumer could text in the name of the fish and get a color-coded response on the status of local seafood species. The World Wildlife Fund reported:

Species marked with a green fish can generally be eaten with a clear conscience because their population numbers are healthy. Orange means they're legal to sell, but if you have a choice you

should opt for one of the 'green' species. Species marked in red are illegal to buy or sell in South Africa.²⁰

During the program, Alpert said, 700 to 800 people a day were participating, using their mobile phones as a remote control to pull down consumer information. "You can easily imagine lots of different ways in which mobile can be used in conjunction with other media as an engagement and education tool," he said.

In a similar vein, the Natural Resources Defense Council will soon launch a program that allows people to text in the name of a product and receive information about whether it is environmentally sound.

"The ability to reply and interact in the moment is key."

Ariel Rosen

Even if the user does not have an Internet-enabled phone, she can type in a keyword and receive a list of environmentally sound products in that category.

Increasingly, this kind of mobile-powered info-grazing is congealing into ad hoc support communities based on a range of shared interests. Katrin Verclas, co-founder and editor of MobileActive.org, pointed to a mobile support group in Mexico among poor people who are HIV positive. By using SMS, the users traded tips about medical treatments and transportation, gave each other emotional support, and shared other helpful information. "It was astonishing, it blew the social services providers' minds," she said. "This was the most SMS-heavy subgroup they'd ever seen there. And it was due to the fact that this was not an abstract concept. It was behavior that was very relevant to these people's lives."

Charities and nonprofits also stand to benefit from the rise of the always-on generation. Ariel Rosen, head of Pro-Social Initiatives at Virgin Mobile USA, told the Roundtable of a charitable giving campaign that Virgin Mobile held on behalf of several charities. The response rate for the campaign was 4 percent through the use of SMS text messages, many times higher than the standard response rate using conventional methods such as direct mail and phone solicitations. The immediacy of mobile—the instantaneous nature of text messaging—cannot be underestimated in such efforts, Rosen said. "The ability to reply and interact in the moment is key." Indeed, it's estimated that

most text messages are opened within 15 minutes to an hour, whereas email is usually opened within 24 to 48 hours.²¹

When U2 performed at the Live8 concert in England and later in the United States on their Vertigo tour in 2005, lead singer Bono used text messaging to recruit fans to sign up immediately for the anti-poverty and AIDS organization One, which he chairs. As described by *Backstage Magazine*²²:

About an hour into a typical show on U2's Vertigo tour, Bono tells the crowd to hold up their mobile phones, in what has become the modern-day equivalent of flicking on a lighter. Instantly, thousands of blue-tinted screens illuminate the darkness as he marvels at the spectacle. 'Is that a 21st-century moment or what?' Bono asks.

Soon the video screen atop the stage flashes a five-digit number above the word 'UNITE.' 'Time to do a magic trick,' he says. 'These little devices—these cell phones—they can do all sorts of things.' Then the band launches into the song 'One,' and Bono encourages the audience to use their phones to send a text message (also known as an SMS) to the one.org Web site, a sort of digital petition voicing support for poverty relief in Africa. Later, during the encore, the names of all who did so are scrolled on the same screen, and each receive a message of thanks from Bono on their phones.²³

Soon U2 would generate about 10,000 mobile responses a night, and generated over 800,000 responses during the entire Vertigo tour, and over 2.3 million US users subscribed to the One Campaign over 12 months through text messaging.²⁴

The power of immediacy can be put to an extraordinary range of uses. Ben Rigby, founder and co-executive director of Mobile Voter, outlined an idea for a mobile phone application that ties into a website database and tracks a user's location through GPS. "I could provide a website where people could sign up to volunteer 30-minute chunks of their free time for certain causes. I could then take that data and match it up with nonprofits or causes that can make use of their free time within three blocks of the user's location. Instead of waiting for a bus,

imagine being able to allocate your free time to volunteer organizations that you'd like to help." Ben has gone on to create Volunteer Now!

The technology is already here. The social network Meetro is a location-aware instant messaging application that will notify you if someone on your contact list signs into the network within a few blocks of where you're standing without giving away your physical address.²⁵

In November 2007, after a container ship crashed into the San Francisco Bay Bridge and caused a 54,000-gallon oil spill, residents relied chiefly on text messaging to launch cleanup efforts on local beaches, with volunteers donning homemade Hazmat suits. "We're seeing

**"We're seeing
mobile becoming a
key component of
disaster response."**

David E. Lee

mobile becoming a key component of disaster response," David E. Lee said. "When an earthquake hits, mobile networks can be used to direct people to avoid certain areas or tell them not to cross the Bay Bridge. It's like a reverse 911."

One can think of innumerable additional ways in which political figures, non-governmental agencies or social organizations might use mobile to deliver relevant, timely information and to spur people to take action. On a contentious vote on the Iraq war, a congressional representative might let constituents sign up to receive a mobile alert announcing the final vote tally. A "green" organization might let users choose from a checklist about their personal consumption habits and then receive a text message telling them their carbon footprint.

Jeffrey Abramson of Brandeis University identified a common strand running through many of the stories related by roundtable participants: our newfound ability to reach out to people in the moment. The disparate examples of organizations and individuals being able to build social capital, to empower citizens in novel ways through the use of mobile, come down to location sensitivity and timeliness. "With the coming migration of community causes onto mobile devices—where we're able to reach people in real time out in the field—it appears we are ready to raid and seize the temporal," he declared.

Creative uses of mobile media

Still underappreciated are the prospects for mobile media to become a powerful presence in the artistic community. Jon Funabiki, professor of journalism at San Francisco State University, pointed to the “media Exprimo” project, a government-funded project in Japan to stimulate uses of cell phones for community purposes. One outcome was a form of serial haiku, or collaborative poetry, to which hundreds of people contributed.²⁶

One inspiring use of mobile technology was born in Toronto's Kensington Market in 2003 and has since spread to Vancouver, Montreal, Dublin, Edinburgh, San Jose and São Paulo. [murmur] is an interactive storytelling project that uses mobile technology to capture and tell oral histories about local neighborhoods. The project's website relates:

[murmur] is a documentary oral history project that records stories and memories told about specific geographic locations. We collect and make accessible people's personal histories and anecdotes about the places in their neighborhoods that are important to them. In each of these locations we install a [murmur] sign with a telephone number on it that anyone can call with a mobile phone to listen to that story while standing in that exact spot, and engaging in the physical experience of being right where the story takes place. Some stories suggest that the listener walk around, following a certain path through a place, while others allow a person to wander with both their feet and their gaze.

The stories we record range from personal recollections to more “historic” stories, or sometimes both—but always are told from a personal point of view, as if the storyteller is just out for a stroll and was casually talking about their neighbourhood to a friend.

It's history from the ground up, told by the voices that are often overlooked when the stories of cities are told. We know about the skyscrapers, sports stadiums and landmarks, but [murmur] looks for the intimate, neighbourhood-level voices that tell the day-to-day stories that make up a city.²⁷

In October 2005 KQED, San Francisco's public television station, hosted the launch of the 'Scape the Hood mediascape, an experiment that overlaid a digital landscape on the physical world. Using GPS-enabled mobile devices and software developed by HP Labs, participants walked the streets of the city's Mission District and listened to the stories told by local people about the history and culture of the neighborhood. As the user moved through the physical world, she triggered digital media—such as images, text, sounds, audio and video—in response to physical events such as location, proximity, time and movement. For instance, someone told the story of the former American Can Company building, which had been transformed into Project Artaud, a dynamic live/work space for artists.²⁸

Other instances of creative uses of mobile technology abound. A British mobile carrier lets you point your cell phone to the sky to identify constellations. In China, as many as 100,000 people turn out in the streets of an urban center with their mobile devices to participate in a "treasure hunt" as part of a massive multiplayer online game.

Mike Sundermeyer, vice president of experience design at Adobe, cited the inventive use of GPS-enabled text messaging that lets people play Pong on the sides of office buildings in cities such as Berlin and Paris.²⁹ Sundermeyer wondered aloud, What if the same technology could be harnessed to enable civic participation? He recalled watching the electronic display at Google headquarters that flashed the search terms people were entering from around the globe. "It gave a sense of what the world was thinking about at that moment," he said. "What if San Francisco City Hall had a giant projector and anyone with a mobile device could come along and post their aspirations of what the city should do? It would become the equivalent of the soapbox in the town square."

A more practical use of mobile technology is beginning to occur in low-income areas where carrying around a lot of cash is a risky proposition. David E. Lee of the Chinese American Voters Education Committee cited the use of mobile devices as a transaction mechanism, with an increasing number of services and retail store accepting payments via cell phones.

Informing the Mobile Generation

Today it appears that every instrument of traditional journalism—newspapers, broadcast news, news magazines—is either under assault or in crisis. The ramifications extend not just to the stock prices of a few corporate behemoths but to our ability to govern ourselves as an informed people. If reliable information is the currency of democracy, we have a vested interest in ensuring that accurate, trustworthy and relevant news, information and opinion are readily accessible through the new channels of mobile media.

Informing the electorate has traditionally been the province of traditional media, but studies have shown the public's increasing tendency to tap into new media sources to supplement their news diet. Blogs, citizen journalism, Web programs, mobile reporting and similar alternative information sources have quickly become familiar fixtures in our lives. People have increasingly begun to consume media online and, especially among the young, through mobile devices. A January 2008 study by the Pew Internet & American Life Project found that 24 percent of Americans say they regularly learn something about the presidential campaign from the Internet.³⁰ A July 2007 Pew study found that 57 percent of online adults have used the Internet to watch or download video, and 19 percent do so on a typical day.³¹ And a January 2007 Pew study found that 34 percent of Internet users have logged onto the Internet using a wireless connection either around the house, at their workplace or someplace else.³²

A number of high-profile news events have demonstrated the power and reach of mobile media, with traditional news sites such as BBC News, MSNBC.com and CNN.com now giving regular play to forms of citizen journalism such as photos and video. Someone using a cell phone captured the gruesome display of UCLA campus police officers using a stun gun to subdue a student in November 2006, raising a public outcry.³³ Amateur video makers armed with video-enabled mobile phones captured the impact of Hurricane Katrina, the Minneapolis bridge collapse, the hanging of Saddam Hussein and the assassination of the former prime minister of Pakistan, Benazir Bhutto, underscoring the power of citizens who happen to be on the scene as history unfolded.³⁴

The single most famous photo taken by a camera phone was the emblematic shot by Adam Stacey minutes after a terrorist bomb went

off in the London subway in July 2005.³⁵ At the same time, some observers wondered about the decency of bystanders at the London bombings “cruelly jockeying for the most gruesome photos on their cameraphones.”³⁶ The event raised the specter of a new era of mobile-powered paparazzi—hardly a lofty example of civic engagement.

Such sensational episodes aside, people have adopted a mostly mundane attitude toward their mobile devices, using them to watch music videos, listen to podcasts, download recipes and tune in to live TV shows. Increasingly, however, others are slipping out of their consumer roles and assuming the mantle of producers by commandeering the new technologies to communicate with trusted peers, cover noteworthy public events and change the very nature of journalism through crowd-sourcing and participatory media.

An explosive growth in community media

The first citizens’ media site of its kind, the South Korean daily news publication OhmyNews was founded in 2000 and today taps into a nationwide network of 50,000 contributors. Vancouver-based NowPublic.com aims to become “the world’s largest news organization” over the next year, relying on thousands of at-the-ready amateur photographers and videographers from more than 150 countries. The citizens’ media directory *Placeblogger.com* counts more than 2,100 community media sites (or “place blogs”) in the United States, with hundreds more abroad.

What forces are fueling the changes in this rapidly evolving media ecosystem? Jan Schaffer, executive director of J-Lab: The Institute for Interactive Journalism, pointed to the belief at the grassroots level that newspapers are doing a poor job of covering local community events. “There’s a feeling of, If ‘Big-J’ journalists won’t cover our communities, we’ll do it our way.”

The vast majority of hyperlocal news sites frame the news in a distinctly different way, she told the roundtable. “‘Big-J’ journalism can take away some lessons from how people in the community view the news. There’s less reporting about the political horserace, almost no notion of being a dispassionate observer, and a complete lack of interest in getting both sides of a story through the convention of balanced reporting. Instead, we’re seeing more conversation, more entries with a distinct point of view and the rise

of a kind of journalism that advocates for a position without ranting about it. The public is telling us that journalism as it has evolved has been stripped of values, yet mainstream journalists are on auto-pilot, with seemingly no ability to depart from their conventions. The traditional ideal of 'objective reporting' is broken. And so the new technologies have stepped in and validated other ways of providing news and information that have proved useful to communities."

Online journalists have taken to the mobile bandwagon with gusto. In the United States, Europe, Japan and South Korea, mobile journalists now are outfitted with everything from GPS-enabled pens and mobile tablets to small satellite receivers that let correspondents file dispatches from remote locations. Backpack journalism, once an exotic departure, has now become mainstream.

In early 2007, AfricaNews.com issued Internet-enabled mobile phones to African journalists in Ghana, South Africa, Mozambique and Kenya to cover local news stories with text, photo and video. In the past, without an Internet connection they would have been unable to publish reports from the field. But they were able to use their mobile phones to report on the political crisis in Kenya following the disputed national elections in December 2007.

"Internet and mobile technology play an increasingly important role in the monitoring of local situations in Africa," Ben White of Africa Interactive wrote in an email interview. "The collection and spread of information has long been dominated by a small elite. The rise of Internet and mobile technology offers new opportunities in the reporting process and plays a vital role in the spread of information. As in Kenya, many governments work to control the spread of information via control over the radio, TV, newspapers and the Internet. The mobile phone, as seen in Kenya, is the most important means for gathering and spreading information."³⁷

To be sure, the rise of mobile journalism has enabled news organizations to cover inhospitable terrain with far greater timeliness. But mobile is also vastly expanding the number of people participating in the media.

“There’s a feeling of, If ‘Big-J’ journalists won’t cover our communities, we’ll do it our way.”

Jan Schaffer

Millions of people using mobile devices now document life in their communities and share those photos or short video clips with others through their blogs, through social networks like Facebook, Flickr and Seismic, through traditional media organizations' websites or through independent sites. Others have begun using text-based social networks like Twitter to communicate the latest news about themselves and their peers. During the Republican and Democratic debates over the past year, tens of thousands of people used their Twitter accounts to exchange instant commentary on the candidates' statements.

“New technologies have stepped in and validated other ways of providing news and information that have proved useful to communities.”

Jan Schaffer

Ken Banks, founder of *kiwanja.net*, recalled a Nigerian politician boasting on a live radio show about a grand new road that had been opened when a local townswoman called in from a cell phone and said, “That road is not finished. I’m standing on it right now and actually it hasn’t even been started.” That kind of on-the-scene interaction helps to enforce a certain level of accountability from those in power.

Evan Hansen, editor in chief of *Wired News*, said the rise of new media communities and social media sites offers a good way to gauge the dynamics of social participation among large groups. Sites like *Wikipedia* and *YouTube* grow and thrive by offering everyone a chance to participate, yet almost all social sites adhere to some degree to the 1/9/90 rule (also called the 1/10/90 or 1/10/89 rule), in which 1 percent of your site’s users will be active contributors, 9 percent will be occasional participants and 90 percent will be lurkers and consumers who don’t actively contribute. “We can learn a lot about how people engage but studying these forms of participatory media,” he said.

While anyone in the field with an Internet connection or mobile device can commit random acts of journalism, not every dispatch or blog post qualifies as journalism, and not every blogger wants to play the role of journalist. The Media Bloggers Association has set down a set of principles for its members that detail reporting standards for accuracy, fairness, transparency, accountability and respect for the privacy of private citizens.³⁸

A note of caution in the rush to citizen media nirvana

Clearly, there are downsides as well as benefits to the democratization of information. Often, bloggers show hostility for any set of standards imposed from the outside, particularly those developed by news organizations over a period of decades.

Hansen pointed to the case of a 13-year-old St. Louis girl who hanged herself in her closet after her MySpace page was bombarded by insults, led by a fictitious boy who had befriended her online. It took almost a year for the details of what happened to come out. When a local newspaper pieced together the tragic details nearly a year later, it withheld the name of the high school girl behind the ruse as well as the name of her parents. A band of online activists were outraged at the newspaper's decision, calling it censorship. They launched a sort of cyber-sleuth posse that uncovered the identity of the girl responsible for the malicious prank. Then they began posting the name of the family members, their home addresses, cell phone numbers and names of the family's business customers in the comments section of Wired News and other websites.

“The idea that the media can control the message has been completely obliterated, and there’s nothing that any media company can do about it.”

Evan Hansen

While news organizations should not give in and cater to this kind of “mob mentality,” as Hansen put it, they no longer exercise the same control as gatekeepers that they once did. “The idea that the media can control the message has been completely obliterated,” he said, “and there’s nothing that any media company can do about it.”

Now that citizens have greater access to the levers of global publishing and more information from more sources than any society in history, does that translate into greater engagement? Not necessarily, the participants agreed. “More information doesn’t help you,” Katrin Verclas said, “but the right information at the right time can be extremely powerful.”

J.D. Lasica, founder and chief executive of Ourmedia.org, said one of the recurring themes at conferences in Silicon Valley was the notion of the “attention economy”—the notion that the data a person amasses online and the reputation she achieves should belong to her as a

“More information doesn’t help you. But the right information at the right time can be extremely powerful.”

Katrin Verclas

portable set of assets that can be carried to other sites. But each person’s attention quotient is filling its limit as we encounter an intermingling news flow about the outside world and information flow about our friends and contacts.

Mobile technology has exacerbated the problem of information overload, as these so-called “rivers of news” now follow us everywhere on our portable devices. “I’m wracked by Twitter guilt and Facebook guilt,” Lasica said, citing two of the top social networking sites. “These are now my

communities. I’m engaged with my online friends more than the people I live next to. There’s an expectation that you’re clued into the meme of the day being discussed by your peers, but it’s hard to keep up with all the things crying out for your attention in an always-on society.”

The amount of information flooding our civic lives and personal lives will continue to expand exponentially, said Joaquin Alvarado. “With the declining role of newspapers after a century of dominance, the media noise factor is so loud that the distillation around what constitutes relevant news and information is really the key question.”

Apple’s introduction of the iPhone in 2007 will lead to wholesale shifts in the mobile environment, prompting device makers to incorporate easy Internet browsing on a wide range of handhelds. Said Alvarado:

That will push the speed of information overload that much faster. The danger is that we’re not properly executing a strategy for preserving the public interest in this new world. Of kids born in 1990, one in 100 can tell us what My Lai was or what apartheid was. We’re in a very new space and at a very dangerous time for our democracy given the challenges we face across a range of issues from climate change to the Middle East.

Civic Engagement and the New Mobile Activism

Mobile media technologies provide new tools for civic organizers, political candidates, activists and ordinary citizens to reach out to others and galvanize community action on a wide range of issues.

“Mobile serves as an invaluable awareness tool,” said Theda Sandiford, a marketing consultant whose clients include Phat Fashions, Asylum Records and Rush Communications. Once mobile users become aware about an issue or campaign, they can take action by donating money, volunteering time or spreading the message to their peers.

“Mobile serves as an invaluable awareness tool.”

Theda Sandiford

Sandiford pointed to the November 2007 launch of a site on the Treemo platform devoted to informing the public about blood diamonds. Treemo is a Seattle-based online and mobile community geared to socially conscious users who share video, audio, photos and text, either by posting to the Web or by sending content to a friend’s phone. The Diamond Empowerment Fund website (tagline: “Helping Africans Help Africa”) at def.treemo.com was created following a tour of South Africa and Botswana by Russell Simmons, the entrepreneur, activist and co-founder of the music label Def Jam. A film crew led by award-winning director Selwyn Hinds met with young Africans and captured their stories in six short video clips.³⁹ Using mobile devices, people can join the community, post comments, share their own videos, embed digital stories on their MySpace or Facebook pages and more.

Another network with a civic engagement focus, *ShareIdeas.org*, is “an online community and a wiki for sharing ideas on how to use mobile communications for social and environmental benefits,” its website says.⁴⁰ The site, inspired by the CEO of a Nigerian organization who wanted to help nurture a new generation of African leaders, offers tutorials on how to use mobile technology to collect field data, distribute information, manage finances, manage an organization, respond to emergencies, take and share photos and video on mobile phones and so on.

Deb Levine, executive director and founder of Internet Sexuality Information Services (ISIS), outlined the nonprofit group’s SexINFO project conducted with the San Francisco Department of Public Health. In April 2006 SexINFO was launched to provide local youths with

information and advice about STDs, HIV, birth control, sexual health services and related topics after an upswing in gonorrhea and chlamydia rates, especially among African-Americans between the ages of 18 and 25. Through text messaging, the SexINFO service provides instant answers to questions (“How do you know if you have an STD? Text SEXINFO to (917) 957 4280”) as well as access to counselors (“Press ‘E5’ if u need 2 talk now”).⁴¹

The project came about after the city’s health department asked Levine’s group to set up a website. “There are enough sites out there with rich, wonderful information,” Levine said. “I stood outside of Mission High School one day, and every young person coming out was on their cell phone, talking or texting. So we went back to the Department of Public Health and said, instead of websites, think about cell phones.”

In a 2007 study of mobile habits among low-income urban youths, ISIS discovered that the young people were using their cell phones to talk and to text-message friends. Surprisingly, two-thirds of them were also using their phones to surf the Web. They were not using cell phones to search, however, and conversations in subsequent focus groups found that they would use their devices to retrieve health information when the circumstances arose. “They consider their cell phones a private way to receive information,” Levine said. “They only wanted private health information when they asked for it, not when we wanted to send it.”

ISIS, in partnership with a Planned Parenthood affiliate in Southern California, offers a hotline where mobile users can ask questions of live volunteers about health issues or sexual practices via instant messaging or text messaging. The groups are hoping to roll out the service nationwide with a GPS technology component.

Ben Rigby of Mobile Voter outlined the efforts of the nonpartisan organization Mobile Voter to spur young people to vote in the 2006 elections through the use of text messaging. Working with 200 groups, Mobile Voter launched TXTVOTER ’06, a social networking campaign in which an individual or organization could create a unique keyword and then encourage their friends to text the keyword. The text message resulted in the person receiving a voter registration form in the mail.⁴² “We thought it was a good plan, given that the call to action originated with a trusted source,” Rigby said.

It turned out, however, that many people didn't use the system until two weeks before the voter registration deadline, given that the issue was not top of mind. By the time the response rate shot up to as high as 46 percent in the final two weeks, it was generally too late to mail out forms. "The incentive was not there until too late in the game," he said. "We learned that, unless the law changes to allow digital signatures, we can't offer a mobile voter-registration application when it's most timely and relevant—and in mobile, that's a death knell."

A related and simultaneous project to get out the vote via text message, however, achieved good results. Together with Working Assets, the Public Interest Research Group (PIRG), and a research team from the University of Michigan, Mobile Voter sent out text message reminders to vote on the day before Election Day in November 2006. These reminders were sent to over 4,000 mobile phone numbers chosen at random from a pool of over 8,000 mostly young people who had completed voter registration applications. Afterward, participants were matched to voter records to determine if they had voted in the election, and a sample was surveyed to gauge their reaction to the messages. Across the board, text message reminders increased the likelihood of an individual voting by 4.2 percentage points. At just \$1.56 per additional vote generated, text messaging was extremely cost effective.

CASE STUDY

SexINFO: A Pilot SMS Mobile Project for Urban Youth Text SexINFO to 61827

The Problem

In early 2005, Internet Sexuality Information Services, Inc. (ISIS), a 501(c)3 non-profit organization, was approached by the San Francisco Department of Public Health, STD Prevention and Control branch (SF DPH), to find a way to technologically address rising trends of STD rates in the City, particularly among African-American youth.

The Initial Response

There are already many accurate and comprehensive websites containing HIV prevention, STD prevention and other reproductive health information, so ISIS went back to SF DPH and suggested going the SMS text messaging route instead of a traditional website. ISIS staff had observed anecdotally that anywhere the ISIS staff saw young people they were "at" their mobile phone keyboards texting their friends. Staff then held two focus groups with urban, African-American youth to discover how and when they were using their phones, and the general acceptability of cell phones for delivering sexual health information.

Focus-groups participants had access to unlimited text messaging on their phones (via MetroPCS service) and considered receiving text messages about sexual health to be a private and valuable service as long as they initiated the messaging (opt-in). After convening the focus groups, ISIS gathered a community advisory board (CAB) of staff from SF DPH, public clinics serving African-American youth, high school health programs, juvenile probation department, and clergy from a large African-American congregation. The CAB met quarterly to advise and provide guidance on program acceptability and content.

SexINFO - The Service

Since 80 percent of focus group participants had MetroPCS (a low-cost month-by-month service), ISIS first approached the corporation to partner with ISIS and SF DPH to provide the sexual health service free of charge to MetroPCS users. However, concerns that this proposal would over tax MetroPCS's service led ISIS to seek an alternative service provider.

Eventually a referral to HipCricket, a marketing company in Australia using mobile technology to create campaigns and solutions for major broadcasters and brands, solved the problem. HipCricket figured out that MetroPCS did not participate in the same networks as the other major carriers—that is, they did not broadcast any messages using short codes. HipCricket then set up

ISIS' short code for SexINFO, and registered a 10-digit phone number for MetroPCS users.

The organization launched SexINFO in April 2006 as an "opt-in" menu of services. Youths could text the word "SEXINFO" to 61827 or 917-957-4280 (for MetroPCS users) and then received a "phone tree" or menu with 11 codes instructing them to text, for example, "B2 if ur condom broke," "D4 to find out about HIV," or "F8 if ur not sure u want to have sex." After texting B2, they would receive another text with a basic fact, then two local referrals—"U may b at risk 4 STDs+HIV women can also b pregnant SouthEast Keith@Armstrong 671-7000 M-F8-5,W8-12.City Clinic 356 7th St 487-5500 MWF 8-4 TuTh 1-4." There is a companion website, www.sexinfosf.org, where parents and others can see the messages online.

Marketing

ISIS worked with SF DPH's Youth United Through Health Education (YUTHE) program to develop and test materials to promote SexINFO. Posters, business-sized palm cards, and bus shelter ads were placed in strategic locations in the San Francisco neighborhoods populated by African-American youth. Outreach workers distributed palm cards on the street and in schools. Banner ads ran on Yahoo! targeted to youth aged 18-24 for two weeks. Multiple news publications including local and national TV and radio, the *San Francisco Chronicle* and *USA Today* picked up a media press release.

Usage Statistics & Usability Testing

In the first 25 weeks of service (April through October 2006), there were more than 4,500 inquiries to the short code; 2,500 (55 percent) of those inquiries led to access to more information and referrals. The top three messages accessed were:

1. "what 2 do if ur condom broke,"
2. "2 find out about STDs,"
3. "if u think ur pregnant."

For the next 25 weeks (November-April 2007), there were 2,344 inquiries, with only 464 (19 percent) leading to the second level of the menu with more information and referrals. And from May 2007 through end of October 2007, there were only 432 inquiries, with 261 (60 percent) leading to more information and referrals.

In March 2007, ISIS conducted usability testing via one-on-one interviews with 12 youth aged 16 to 22 recruited on the street. During the interviews, participants were given one of SexINFO's promotional cards and then asked to interact with the service. Interviewers observed and taped users while they interacted with the service and then asked participants about their experience.

Summary of Usability Testing

- Several users had difficulty sending the first message (text sexinfo to 61827),
- Overall, the service was well received,
- Users were concerned about cost (is it free?),
- Most users understood the instructions in the first reply or message, but did not notice the Q5 for more questions (they got the first four questions, but not the next seven).

Short Term Enhancements

In October 2007, ISIS made the following simple changes to the service:

- 1) Changed the initial menu when you text "SexINFO" to 61827 to be more user friendly:
 - One page menu with four choices,
 - Choices are single digit (instead of A1, just 1),
 - Clarified instructions (instead of Reply w/code for answers, just Txt 1 if ur condom broke)
 - Added a "send to a friend" message within menu, and
 - Added info that clarified cost (std. msg. rate).

2) Added simple changes to second “tier” information (after initial menu):

- All clinic phone numbers are now easily dialable via ten-digit callback number, and
- Changed some shortened language to be more clear to users (addresses, clinic names).

For the next three weeks of service, marketing efforts increased significantly (PSAs on MTV and BET as well as a viral YouTube video). There were 204 inquiries in these 3 weeks, with 199 or 97.5% leading users to the second level of information and referrals.

Long Term Plans

The organization is working with partners (the Full Circle Fund, and tentatively the Kaiser Family Foundation, BET, and Univision) to take SexINFO out of the pilot phase and launch a national mobile multimedia campaign. It is also looking for mobile partners who understand the value of this service and are not afraid of providing sexual and reproductive health information to urban youth. The group is strategizing about “stickiness” of the service—what will bring youth back multiple times, as well as the best ways to deliver the information in an effective "edutainment" format. ISIS is also re-designing the website to include images from the print and video marketing materials and to build in XML instead of HTML so as to be able to expand as mobile technology reaches more mainstream audiences.

Prepared by Deb Levine

Elements of a successful mobile campaign

What, then, are the hallmarks of a successful mobile campaign around civic engagement? Jed Alpert of Mobile Commons, listed three key uses:

- as a recruitment tool for new members;
- as a tool to spur existing constituencies to take specific actions;
- as a reliable and trusted tool for people to gather information about an issue or subject.

“Ultimately, we’re all in the response rate business,” he said. “This isn’t very different from what marketing people have been doing for decades, sending out letters with a narrative storyline about an issue or cause.”

As one example, he pointed to the Matthew Shepard Act passed by both houses of Congress in 2007 but opposed by President Bush. The bill, named after the gay college student who was tied to a fence and beaten to death in Wyoming in 1998, would expand the definition of hate crimes to include the victim’s sexual orientation, gender identity, gender or disability. A mobile campaign by the Human Rights Campaign (HRC) prompted 30,000 people to opt into a database that alerted them how to contact their congressional representative before a vote on the bill. Some 2,500 to 3,000 of them followed through with calls or emails, helping the legislation to pass.

Alpert and Katrin Verclas both observed that the impact of a mobile campaign can be even greater at the local level, where 10 phone calls to city council members could swing a vote on an issue because they typically receive so few calls.

Another example of mobile civic engagement took place in 2007 in California. As Governor Arnold Schwarzenegger’s health care reform proposal was being heard in the state legislature, hundreds of activists on the state capitol grounds were joined by thousands of citizens who texted their messages, which were displayed on a large screen set up outside the capitol building. “Anyone watching on the Web and seeing their message flash on the jumbotron felt like they were part of the proceedings,” Alpert said. It also supplied the event’s organizer, It’s Our Healthcare, with hundreds of additional names for its database of health care advocates.⁴³ “Mobile is good at providing metrics and mea-

asuring the effectiveness of campaigns,” he added. “It lets every organization have their own private Nielsen service.”

There may be cases where mobile has a deeper impact on a community and its residents that extends beyond the immediacy of short-term campaigns by activist groups.

Leslie Rule described a GPS-enabled project that KQED’s Digital Storytelling Initiative conducted with Oakland High School students in 2004. Students went into their communities to capture stories about social justice, focusing on neighborhood violence, environmental concerns and ethnic issues. They then came back into the classroom and, using Google Earth and GPS-enabled handhelds, created 90-second digital stories tied to longitude and latitude coordinates. Users equipped with mobile devices and special software could then experience the stories while standing at specific locales.⁴⁴

“Asthma rates were seven times higher in communities with freeways running through them. No grocery stores in a neighborhood meant people ate at fast food restaurants, leading to an increase in obesity,” Rule said. The resulting stories were screened by the community in a local school and online. “The finding was that, yes, this did engage them and gave them a meaningful way to share and reflect on their stories. We probably made a difference to those kids, to their parents, to the community members who went through that walk. And maybe the next time there’s a proposal to put a freeway through the middle of a community, they’ll stand up and say no.”

Barriers to the Mobile Civic Sphere

Steve Chen, co-founder and chief technical officer of YouTube, shared some of the obstacles that outsiders face when seeking to innovate in the mobile environment. He recalled that in 2006, the YouTube team estimated that YouTube videos would be viewed on mobile devices just as frequently as on computer screens by the end of 2007. It hasn’t turned out that way. “That was before we knew anything about the challenges of the mobile phone,” he said.

The opportunities for video in the mobile space remain robust: 30- to 90-second clips offer an ideal viewing experience on mobile; the lower-quality resolution is less of a factor on the small screen; the interface is well-suited for typing short descriptions and comments; GPS enables

videos to be associated with specific locations. However, Chen said, “The same issues we faced 18 months ago are still there.” The technological hurdles of playing video and audio in multiple formats can be overcome. But the business hurdles remain daunting. Any company looking for a widespread presence in the mobile space needs to negotiate separate deals

“It’s nothing like what it was with the desktop side, where we had control over the entire user experience.”

Steve Chen

with each of the major carriers, all of whom want 12-month exclusives. “Nobody’s willing to open up their network in any meaningful way. It’s very slow going. It’s nothing like what it was with the desktop side, where we had control over the entire user experience.”

In corporate America, mobile campaigns are just beginning to take off. Consultant Theda Sandiford said one of her clients, a music label, increased its budget for mobile from zero to 5 percent of its marketing budget over the past year. “We’re building online communities around artists with the help of mobile devices.

We’re finding ways that the music industry can benefit financially beyond ringtones and the little plastic discs they sell. If record companies are doing this, we’re on the edge of something pretty exciting.”

Katrin Verclas, head of MobileActive.org, said many of the non-governmental organizations she works with still don’t know how to incorporate mobile as a part of their overall strategy. “They say, ‘How do I do this? I don’t even know where to begin.’ So there are real knowledge barriers, both strategic and tactical, to overcome.”

Roundtable participants identified three key barriers that stand in the way of mobile’s widespread use in the civic sphere: cost to users, the closed nature of mobile networks and the lack of access to broadband mobile in rural areas.

Barriers of price

Derrick Oien, co-founder and president of Inter casting Corp., said, “If I’m a consumer in East Palo Alto who has to pay money to text message or to access data services, I probably won’t do it. That’s a crippling barrier, and ultimately that’s the core issue.”

Jeffrey Abramson of Brandeis University raised the issue of equal access to the mobile Internet, drawing a parallel to the widening disparity of income levels in the United States. “Affordability on the Internet is largely solved,” he said. “But mobile phones are expensive and increasingly treated as a fashion accessory. The entire ringtone business, generating billions in revenues for a few large players, strikes me as an enormous scam.”

Deb Levine of ISIS pointed out that the costs of a traditional mobile campaign are prohibitively expensive for most nonprofits. But a few have begun taking innovative steps to route around cost barriers. “The first time out when you call a mobile aggregator, first you have to purchase your short code, then you have to do the engineering, then it costs \$2,500 to \$3,000 a month to reach all the providers. That’s a lot of money for a nonprofit. What we’ve seen as a successful strategy for nonprofits is to piggyback by building a partnership with your aggregator’s corporate clients. That’s what ISIS has done, and we get unlimited network services.”

The pricing structure for texting has been a particularly formidable barrier to overcome. When a donor gives to a nonprofit via text, more than half of the contribution goes to the telephone carrier, leaving less than 50 percent to the nonprofit. “That’s an unacceptable margin for most charities,” Katrin Verclas said. Combined with low donation caps—no more than \$5 per SMS with a total of five SMS for a \$25 donation—and other charges for short codes and mobile vendors, nonprofits have not seen a clear pathway to mobile giving campaigns.

But Verclas writes on her Mobileactive.org site that this is about to change. The Mobile Giving Foundation, a Washington-based nonprofit organization, recently brokered a deal with the four major carriers in the United States and with the United Way. Under the agreement, the carriers waived all fees, allowing the United Way to collect 90 percent of the donations with 10 percent going to the foundation. Writes Verclas:

This has not happened before other than in major disasters like Hurricane Katrina and more recently the California fires, when the carriers waived their fees for mobile text donations to the Red Cross.

In an interview with MobileActive, Jim Manis, who is the CEO of the Mobile Giving Foundation and a former wireless executive, anticipated that in the next six months the Mobile Giving Foundation will have agreements with all carriers, waiving fees for approved non-profit organizations and campaigns.⁴⁵

Barriers of closed networks

In addition to price hurdles, the lack of network openness looms as an equally critical factor in constraining the growth of a mobile civic sphere. While the Roundtable did not devote a great deal of time to the issue of network neutrality, several members raised the specter that the mobile Internet could turn into a patchwork of walled-off proprietary gardens operated by the major carriers, lacking the openness, distributed nature and absence of central control that proved to be instrumental to the growth of the World Wide Web.

“If you open up the network, all sorts of possibilities reveal themselves.”

Ken Banks

One cautionary tale came in September 2007 when Verizon Wireless was caught blocking text messages from the pro-abortion group NARAL Pro-Choice America. While Verizon quickly reversed its decision⁴⁶, the incident underscored the dangers inherent in a two-tier system where common carriers cannot discriminate against communications over land lines but mobile carriers are permitted to act as gatekeepers in the marketplace of ideas.

In Europe, mobile carriers exert far less control over the kinds of applications that run on portable devices than do their counterparts in the United States. Thus, independent developers have a greater incentive to devise software that caters to a wide swath of users.

Ken Banks of kiwanja.net warned that Europe will continue to outpace the United States in creative uses of mobile media if the U.S. maintains its position of refusing to open up its mobile systems. Without centralized control by the carriers, mobile applications can be freely

shared on almost any cell phone. “If you open up the network, all sorts of possibilities reveal themselves,” he said.

According to a recent article in the *New York Times*, we may be nearing an inflection point in the U.S. mobile marketplace. Analysts predict the wireless networks will follow the pattern of the Internet, where walled-garden communities like AOL once dominated but gave way to the open Web.

Why the tension now, in contrast to, say, six months ago? The catalysts are threefold, said [analyst David] Weiden: the proliferation of new technologically advanced mobile phones, greater bandwidth and increased competition. But mainstream consumers too are being conditioned to expect more, particularly after the debut of the iPhone which offers easy-to-use Web browsing, Wi-Fi capabilities and high-quality video.

Tim Wu, a professor at Columbia Law School, said the relationship between software developers, carriers and handset makers can only change because the way that consumers relate to their phones is changing too.

“On a personal level, the phone feels more like property,” said Mr. Wu. “Once you start to make it yours, you feel like you have more rights to it. It will have a huge effect if you don’t feel free to do what you want.”⁴⁷

In addition, two Google-backed initiatives may portend even greater disruptive changes in the mobile marketplace, with significant potential for expanding civic discourse via mobile devices.

The first was the Federal Communications Commission’s order in July 2007, at the urging of Google and other open-network advocates, requiring that licensees of a large chunk of the valuable 700-MHz band of spectrum allow consumers to use the handset and applications of their choice in this spectrum block subject to certain reasonable network management conditions. Verizon Wireless won a majority of these licenses at auction in 2008. As a consequence, a new generation of mobile devices is expected to interoperate with one another on Verizon’s network.

In addition to spectrum, platforms matter. The second development that may lessen the chokehold that wireless carriers now exert in the mobile space is the rise of open operating systems and open development environments. Today, mobile carriers support a hodgepodge of closed operating systems, including BREW, Java, Linux, RIM, Symbian and Windows Mobile. But these proprietary systems often have serious restrictions and limited functionalities. It's likely that not one in 1,000 mobile users can tell whether their phone runs Symbian, RIM or something else. But we'll get smarter about our phone's operating system as the phones get smarter and more open.

“In 10 years there will be no difference between what you can do on your PC, your TV or mobile device.”

Bill Coleman

is designed to run on a wide variety of mobile phones. Android has attracted a consortium of 45 companies that have agreed to develop applications for it. Dubbed the Open Handset Alliance, the group was formed with the stated goal of “fostering innovation on mobile devices and giving consumers a far better user experience than much of what is available on today's mobile platforms.”⁴⁸ Google's plan is to give away software and services in exchange for income generated from targeted mobile advertising.

Chris Boyer, assistant vice president, External Affairs and Regulatory, AT&T, told the participants, “In our view, ‘openness’ is really about giving consumers the choices they want, whether it's among devices, applications, or operating systems. The wireless market is fiercely competitive, and the carriers that are most responsive to consumers are the ones that are best positioned in the marketplace.”

In a similar vein, AT&T rival Verizon recently announced that it will open its network by the end of 2008 to enable subscribers to use handsets, software and applications not offered by the carrier. CEO Lowell

McAdam admitted the carrier would not have made the decision had Google's Android not pushed the industry in that direction.⁴⁹

In February 2008 at the World Mobile Congress in Barcelona, AOL announced a different approach called the Open Mobile Platform, which the company plans to release to developers in summer 2008. AOL says the software development platform will help developers create applications across major mobile device operating systems. Unlike Google's Android, which is an alternative operating system, Open Mobile is a software development platform for multiple operating systems that aims to make it easier for developers to deploy applications that would work on almost any mobile device.

Another push toward open platforms came at the same gathering in Spain when Yahoo announced oneConnect, a new mobile phone service that integrates e-mail, instant messaging and social networks. It features an open architecture, meaning users will eventually be able to run a host of other applications on it. OneConnect will alert you when your contacts arrive in town, tell you whether they want to meet and show you a list of their recent e-mail messages that you have left unanswered. The service will go live by June, and will work with services including Google's Gmail and GoogleTalk, AOL Instant Messenger and Microsoft's Outlook Web mail.⁵⁰

Bill Coleman of Cassatt Corp. predicted that the marketplace will shake out and ultimately support perhaps two mobile platforms, just as in the desktop computing space:

In 10 years there will be no difference between what you can do on your PC, your TV or mobile device. The global economy is heading toward a quadruple convergence in which everything is run on IP (the Internet). Within 15 years there will be a tremendous convergence of telco service providers, cable service providers, ISPs [Internet service providers] and portals into one industry, which evolves into community utility service providers. What that means on a global scale

“There is a billion dollar NGO market for innovative applications specific to NGOs that is just waiting to be unleashed.”

Katrin Verclas

is that if you have broadband, you can buy from anyone. The winners will be those companies that can deploy the most amount of capital. It's all about scale and capital, and today there are only two industries that have access to capital of that magnitude: the telcos like AT&T and Verizon, which probably have an advantage over the second group, the technology companies like Google and Microsoft.

Katrin Verclas of MobileActive.org said one of the exciting things about Android and similar efforts is that if the mobile space “opens up even a crack,” it could have widespread positive consequences for civic engagement. “There is a billion dollar NGO market for innovative applications specific to NGOs that is just waiting to be unleashed,” she said. While the mass media tend to focus on mobile games, ringtones and video clips of celebrities, developers are also working on applications to advance civic goals and humanitarian efforts.

Barriers of access

Mary Evslin, chairman of the Vermont Telecommunications Authority, raised the issue that residents of rural counties across the nation lack access to both basic and high-speed mobile services. People who live in rural Vermont—which makes up more than 60 percent of the state's land area—still have no access to broadband today and limited access to mobile phone coverage, even though it's the eighth smallest state in land area. The Telecommunications Authority's mandate is to ensure that the state's entire populace has fixed high-speed Internet access, nomadic Internet access and mobile phone coverage by the end of 2010. Said Evslin:

The problem is quite simple. Let me give you a concrete example: Comcast has a national policy that is based on an algorithm requiring that the company must recoup its capital expenditures within five years. In general, they will lay cable in a given mile only if there are at least 15 residences and a 60 percent subscription rate. But many parts of rural America have three houses per linear mile.

How do those people get high-speed Internet access so that they can take advantage of all the great services and civic engagement efforts we've been discussing? How do their kids do the homework that teachers are beginning to require? How will their small businesses be able to order parts? How will the elderly be able to have new appliances that monitor their health remotely?

It amounts to rural discrimination. At my house there is no cable, and until last week no DSL. There was only a WISP [wireless internet service provider] with miserable speeds. In some places there is only satellite. Rural America has been forgotten. We're the have-nots. States have been trying to take up the task with very limited resources. We need a national policy so that rural America can develop parity and obtain equal access to our democratic infrastructure and civic institutions.

“We need a national policy so that rural America can develop parity and obtain equal access to our democratic infrastructure and civic institutions.”

Mary Evslin

Regardless of how mobile technology and wireless platforms evolve, Joaquin Alvarado argued, the predominant players in this space need to adopt an infrastructure that supports society's public policy goals and serves all constituencies: “We need to create an institutional framework that supports a young person having access to contextually driven information and educational resources informed by all the institutions we've invested in for the past 200 years to support this democracy.”

Strategies for Adapting Mobile to the Civic Sphere

During the roundtable, participants formed three break-out groups, each one representing a different category of mission-driven or non-profit entrepreneur. These included organizations of a social or cultural nature, journalists and journalism entities, and political and governance

organizations. The sessions resulted in each group identifying ways to adapt mobile media technologies to their mission.

Social-cultural forms of mobile media

Participants observed that the cultural imprint on civic engagement covers a wide swath in the mobile space. “It could be arts, health, medicine, community building—there are a host of organizations in these domains that can make effective use of mobile technology,” Mary Evslin said, “but we realized the issue was not with the kids and young people who’d be the recipients; the problem is in the institutions best situated to reach them.”

As a result, the breakout group recommended the formation of pilot projects and initiatives to develop prototype lesson plans and best practices that encourage the use of mobile technologies in creative and positive ways in educational settings and in the public health system.

James Katz of Rutgers pointed out that use of mobile in the classroom remains a contentious issue. “These devices are disruptive, but they’re also beneficial,” he said. Many high schools and grade schools have policies that proscribe the use of mobile devices altogether.

Entrenched resistance to the use of mobile in classroom settings will not be easy to overcome. “There’s an institutional fear of technology in the schools, especially mobile,” Deb Levine said. “Teachers and administrators have an almost palpable fear of what will happen if we put mobile technology in the hands of students.”

Already, advances in wireless applications—such as multimedia, podcasts, speech to text, voice recognition, language translation and collaborative technologies—have shown the value of mobile in classroom settings. Of today’s devices it might be said: This ain’t your daddy’s cell phone. Some of the new mobile gadgets can project images from the device’s tiny screen onto a wall, while others enable users to type on full-size computer keyboards.

Writes Mark Dean, vice president of the IBM Almaden Research Center: “Mobile phones are used in education around the world. For example, in the United Kingdom, grade-school students use cell phones to take pictures and produce videos as part of a geography class, and in Japan university students are more likely to use mobile phones than PCs

to read class assignments and collaborate with fellow students and teachers. For many countries, the mobile phone is, and can be, a student's entry into the World Wide Web."⁵¹

Joaquin Alvarado said it would not be difficult to find internal champions to evangelize the proper use of mobile to advance education. "My daughter is 8 and her teacher is 25, and the younger teachers are not fearful of these devices," he said. "We have to get beyond the idea that SMS is mobile's killer app. It's only the entry point. With the advent of the iPhone, these are full-fledged Internet devices from here on out. So we have to think about the Internet in a mobile context to really understand what the possibilities are."

The group recommended that an umbrella group undertake a limited number of pilot programs with thought leaders in the schools to demonstrate how mobile could be effectively deployed in the classroom to facilitate learning. The pilots should develop from the bottom up as well as from the top down. The output of best practices gleaned from such pilot programs could then be evaluated and shared with other educational institutions and the larger community. "Young people are hungry for this," Katz said. "We need to tease out the empirical evidence that it works."

Katz said the goal is to hold out the prospect of mobile technologies "as tools of personal liberation and not to make people into victims of large social engineering schemes. People should have the freedom to use these tools to create civic engagement as they see fit. It may turn out that not all uses of mobile will contribute to civic culture."

An investment of resources from the community could go a long way toward adapting these ubiquitous devices to serve the public good. "Probably the smartest thing we could do to enhance public education would be to turn mobile devices into magic wands for students, where they can access any number of resources at a moment's notice," Alvarado said. "We can prepare teachers to use them effectively, and we can normalize the use of these resources in the public interest. Media literacy needs to be reframed to be about media citizenship."

"We have to get beyond the idea that SMS is mobile's killer app. It's only the entry point."

Joaquin Alvarado

Alvarado volunteered his institute at San Francisco State University to serve as an incubator or sandbox for such an effort. One specific proposal that resonated with the participants was the idea of a simple text-messaging service that connected high school educators with parents to communicate basic information about their child's progress in school. Call it EdText—a free service that lets teachers transfer updates from any existing learning management system onto their mobile device and then text it to their students' parents. “That, right there, would catch fire with PTAs and schools,” he said.

“What we really need is silo busting to help spread innovation through new distribution channels.”

Katrin Verclas

The group members envisioned this as a multi-pronged initiative involving software development, a test school, a wireless carrier willing to dedicate services at cost, an existing educational service such as TeacherEase.com⁵², a nonprofit steering group to pull it all together and funding to support it. Jed Alpert

of Mobile Commons offered to help develop the application for schools.

Since this discussion, a coalition of organizations including the Institute for Next Generation Internet at San Francisco State University, Mobile Commons, the Bay Area Video Coalition, Applied Learning Technologies of Arizona State University, and the Zero Divide Foundation of California have partnered to bring this idea to fruition. In early March 2008, Alpert and Alvarado launched EdText at the Microcomputers in Education Conference at Arizona State University.

Such an umbrella group should also draw from ongoing pilot programs in the developing world and in the private sector at companies like Boeing, said Susanna Hietala, a manager with the Community Involvement team at Nokia. “There are amazing pilots taking place around the world. Let's pick the ones we want to replicate, scale the ones that work and build a business case.”

Katrin Verclas suggested that instead of a new pilot program what's really needed is a meta-analysis of the hundreds of mobile projects that have already been conducted with conclusions drawn about how learnings in one field could be applicable to education, election monitoring or civic engagement. “We're seeing innovation silos,” she said. “What we really need is silo busting to help spread innovation through new distribution channels.”

Once new or existing pilot programs are evaluated, a set of “how-to” tutorials could be assembled and publicized to journals read by school superintendents, administrators, city and county managers and health officials, and then disseminated to the wider public through general circulation publications like *Ladies Home Journal* and *USA Today*. “Through these efforts, we can dispel the mythology that mobile technologies are all bad and keep kids distracted, isolated and uninformed,” Evslin said.

CASE STUDY

EdText

EdText is a communication tool that allows teachers, parents and students to communicate more effectively via text messaging. It is a platform that bridges between the classroom and the community by allowing teachers to use a simple web interface to send messages out and receive messages back from the mobile phones and devices of parents and students. This provides an immediate and pervasive connection that does not require a major investment by either the school or the parents and leverages the stunning penetration of mobile phones in the U.S.

EdText was the result of the Aspen Institute Forum *Mobile Media and Civic Engagement*, attended by a diverse group of community catalysts, entrepreneurs, and researchers who were engaged in exploring the possibilities of mobile communication as an extension of the social space in the U.S. As the conversation progressed, evolved and exploded over two days it became evident that something quite tangible could be forged from the spirit of the convening itself.

On day two the discussion arrived at a question: What simple step could we take to advance the civic and social engagement of communities in the U.S. through mobile communication? The answer was EdText. A team immediately formed from several participants to fund, develop, pilot and begin marketing the solution and within 100 days we had EdText launched. EdText is now being implemented in schools and non-profits in several states.

Prepared by Joaquin Alvarado

Journalism and mobile media

Participants in this breakout group circled around three ideas: the increasing participation of citizens in the news process, the immediacy afforded by mobile media, and the issues involved in establishing confidence and trust in news sources. In the end, the group members came up with two proposals:

- Twitter Posses, which emerge from the interaction between a journalist and a cadre of citizen volunteers via a mobile service or application;
- A graphics-rich Smart News Widget application for mobile devices that can be set to be location-aware or tuned for personalized news.

The first of these proposals is based on the idea of collaborative efforts toward a shared goal, which has its root in several cultures. Jon Funabiki of San Francisco State University referenced a popular comedy in Japan called *Train Man*, ostensibly based on a true account of a shy blogger who screwed up the courage to go out on a date and used real-time input from his peers about what to wear, what conversation to make and so on.

“Twitter would allow us to intersect the news gathering process as it happens.”

Evan Hansen

The idea of using real-time interactivity in covering the news is not a new one, although recent advances in technology make it more practicable now. J.D. Lasica recounted a magazine story he wrote in 1996 detailing John Perry Barlow's vision of being able to feed questions to reporters in the field at an interview or at the scene of a breaking news story. Interactivity—the promise of a two-way dialogue between journalist and reader—was what Barlow held out as a model form of journalism.

The group members, particularly Evan Hansen of Wired News, took that notion in a slightly different direction by proposing the creation of Twitter Posses, based on the popular social network that enables friends to share short bursts of conversation or news. Reporters at newspapers or magazines could begin using the immediacy and interactivity of

Twitter (or a similar network such as Jaiku or Pownce) to interact with a small circle of readers. For example, a beat reporter could enlist a dozen or two dozen passionate, driven readers to serve as a kind of brain trust, idea factory or sounding board. Whenever the reporter was about to tackle a big story or difficult interview, she could begin a mobile dialogue with her posse members about what approaches to take or questions to ask.⁵³

“This kind of transparent reporting stands the traditional news-gathering approach on its head,” Hansen said. Wired magazine has written about the idea of “radical transparency,” and the Wired News blogs have a long tradition of readers adding insightful comments to extend and deepen a reporter’s journalism.

“Twitter would allow us to intersect the news gathering process as it happens,” Hansen said. “This could be very exciting. Imagine I’m on my way to interview General David Petraeus and I twitter my contacts in the military. You might get some real gems.” The concept wouldn’t scale to thousands of people, so the reporter would have to keep membership restricted to a small, trusted group of collaborators. Hansen said he may experiment with such an approach on Wired News, and it’s likely that reporters at other news organizations have already begun doing so.

Ken Ikeda of the Bay Area Video Coalition outlined the session’s second proposal for the development of software to run a Smart News Widget on mobile devices. Adobe has been developing a graphical search widget, and that prototype could serve as a model for a service that could quickly and easily summon up temporal content relevant to users’ lives, whether related to their neighborhood, temporary location or area of interest.

“Citizens want to access information from multiple sources that is closely related to their own interests but that also offers both serendipity and a high degree of trust,” Ikeda said. Such a device

“Citizens want to access information from multiple sources that is closely related to their own interests but that also offers both serendipity and a high degree of trust.”

Ken Ikeda

would be able to tap into not only the usual panoply of traditional media sources but vetted content from alternative media and trusted peers. A new breed of broadband-capable Web-enabled mobile devices is just beginning to emerge with huge opportunities for civic engagement and commercial prospects.

M-governance and civic engagement

One of the most promising potential uses for mobile technology is its use at the local level to empower citizens to become more active in their communities and in the public square—at the federal, state, county, city and school district levels. Already, demo projects are underway in which citizens use mobile to alert their local governments about problems they encounter in parks, on streets, along bus routes and in other real-world civic spaces.

Participants in the last breakout session looked to the still nascent field of m-governance (m for mobile) as a way to put into place a mechanism to:

- improve feedback loops between citizens and public officials,
- offer the equivalent of an online ticket system that allows stakeholders to track the progress of reported issues from inception to resolution, and
- give people an easy way to report irregularities or attempts at voter suppression in real time during elections.

In the past, citizens have felt disconnected from local government when their complaints about problems in their neighborhood are met with inaction. Today, mobile offers the opportunity to provide the glue that connects all the stakeholders.

“When someone sees a broken swing,” Jed Alpert said, “there’s a connection between the person reporting it from the scene on her mobile phone and a human being identified as being responsible for fixing it. To ensure accountability, there should also be an online clock or widget that measures how long it takes until the swing is actually repaired.”

Ben Rigby held out the possibility that communities of interest could form around local issues in the public sphere, even for something as small as a broken swing. No longer is the swing the concern of a single taxpayer and her elected officials; other residents with the same concern can now be brought together and drawn into the conversation, especially through mobile communities connected through postings and alerts.

J.D. Lasica suggested that local governments should experiment with offering a more inclusive role for citizens and companies. Today's Mobile Generation is comfortable with the idea of a distributed knowledge network where peers might know the answer to local questions and offer solutions superior to those proffered by government employees. Perhaps the private sector—including businesses, private individuals, media organizations and community groups—could play a greater role in townsquare upkeep or purchasing new playground equipment. “Why not a small placard that says, ‘This swing set sponsored by Cisco?’” suggested Lasica.

Joaquin Alvarado of the Institute for Next Generation Internet agreed: “Commercial donations could help develop hyperlocal economic activity. My neighborhood in Oakland was depressed for years but could have benefited by sponsored solutions driven by the marketplace. A \$150 swing could take three years for local government to act on but a local business could step in, sponsor it and get it up in a matter of weeks if it meets certain requirements. One can easily imagine an AdWord system for solving problems at the city level that benefits businesses as well.”

Barbara Cohn Berman of the Fund for the City of New York cautioned that any such undertaking could face resistance from entrenched interests and government bureaucracies. “One barrier is the institutional culture, where the mindset is that customer service is not delivered or expected. That would have to change.”

Mary Evslin pointed out that such an effort would need to be done carefully so that the most aggressive constituencies do not receive undue rewards. “We’d need to build in checks and systems to make sure that we don’t produce monopolies and leave out the needs of the poor, rural areas, old people and the disadvantaged.”

Goals of m-governance

For m-governance to work in a meaningful way, it has to touch the real-life concerns of citizens in their communities—and achieve results. Charlie Firestone of the Aspen Institute laid out three requirements of m-governance for it to achieve the desired effect:

1. Put the customer first in the provision of government services.
2. Achieve greater efficiencies and reach in the delivery of government services.
3. Increase and enhance citizen-representative interaction.

The barriers to problem resolution through local government services are well known and can be summed up in a single word: bureaucracy. But Firestone outlined a new approach, dubbed “competitive representation,” whose goal would be “to enhance the representative’s standing with his or her constituents, promote government efficiencies, better satisfy citizen demands of governments and enhance the democratic process.” (See Firestone’s paper “Competitive Representation and M-Governance” in the appendix.)

Where local government agencies now try to sidestep additional demands on their limited resources, a system of competitive representation would foster a new dynamic where elected representatives at various jurisdictional levels could compete with each other for the loyalty of the voter through the provision of m-governance or broader e-governance services, he said. The officials, in effect, would serve as navigational intermediaries who cut through jurisdictional red tape and enable citizens to interface with the government agency responsible for remedying the problem. Mobile technology helps extend the reach and scope of such an effort.

In a way, a system of competitive representation would resemble a return to an era when block captains or ward leaders had political incentive to address residents’ complaints and perform constituent services. Abramson said such an approach “would reinject real competition into the system and foster a more responsive government.”

If elected officials can claim credit for such a facilitation role, perhaps through a series of online scorecards, they would have every reason to participate in a system where real-world benefits flow to their constituents. “Politicians are desperate lonely people,” Alvarado suggested. “They can’t get enough of this stuff.”

Horizons: Mobile Media and the Public Good

An earlier Aspen Institute report, *The Mobile Generation*, explored the impact that nearly 3 billion cell phones are having on community, culture and our global economy. Particularly in developing nations, mobile devices are much more than digital communicators; they are used for cash transactions, banking, telemedicine, bartering, news and entertainment. Indeed, a mobile device seems to suffuse its user with an identity that transcends boundaries.⁵⁴

This report has a narrower focus: How are the new mobile technologies being put to use in the sphere of civic engagement? Does mobile augur an era of connectedness that will drive citizens to take part in local causes, improve our communities, engage in politics and advance worthy social movements? Or will mobile drive more dissonance and atomization in our civic institutions, increase our sense of isolationism and unrest, and lead to a generation of self-absorbed social misfits?

One matter on which there is little doubt is that mobile is becoming increasingly a part of our daily lives. By 2010, a projected 81 percent of Americans ages 5 to 24 will own a cell phone, up from 53 percent in 2005.⁵⁵ Already, 35 percent of 8- to 12-year-olds own a mobile phone, and 20 percent have used text messaging.⁵⁶ The new phenomenon of geotagging is just beginning to take off as people assign coordinates to their photographs, news stories and other location-based content, offering dazzling new possibilities for attaching context and meaning to geographic proximity.

As mobile's reach expands, we need to be careful not to constrain our vision and regard mobile devices as mere cell phones used by chattering high school youths and Type A business execs stuck in traffic jams. In the dawning era of always-on connectivity, we will be carrying mini-supercomputers in our pockets, able to access virtually all the world's knowledge with a few thumb taps. When mobile truly becomes an extension of ourselves, the frivolous and mundane artifacts of mass culture will tug at us alongside more weighty concerns. But there will be a place here, too, for civic engagement.

Not everyone will find the democratic nature of the new mobile reality reassuring. In this world, people move in and out of *ad hoc* mobile communities, donning new identities like it's Fat Tuesday. Others congregate in strange new circles. One of the oddest location-based mobile social net-

works is called MizPee.com. Members post reviews of public toilets in Barcelona, London, Paris and Rome, with ratings for cleanliness and cost.

As the new mobile era dawns, we are conflicted. More of us are volunteering at schools, food banks and homeless shelters; more of us are participating in civic engagement programs. Millions of us contribute to charitable causes and local benefits. At the same time, too many people feel isolated and divorced from their government and local institutions. As newspapers and media outlets continue to trim costs, coverage of municipal affairs is often the first casualty, exacerbating the problem of disengagement from local affairs. We need a new kind of civic renewal that reflects the realities of the new age.

In the report “Citizens at the Center: A new approach to civic engagement,” consultant Cynthia M. Gibson argued that a true citizen-centered approach to civic engagement extends beyond voting, volunteering and community service. Instead, true engagement manifests itself with the emergence of community-based hubs for problem solving. She writes:

These kinds of citizen-centered and citizen-driven approaches move away from defining and viewing civic engagement as a set of tactics (voting, volunteering, service or organizing) or outcomes (planting more trees or increasing the number of people who vote). Instead, they focus on creating opportunities for ordinary citizens to come together, deliberate, and take action collectively to address public problems or issues that citizens themselves define as important and in ways that citizens themselves decide are appropriate and/or needed—whether it is political action, community service, volunteering, or organizing.⁵⁷

Now, add to this notion the power brought to the table by the Mobile Generation. There are more than 240 million mobile subscribers in the United States, or four out of every five Americans. What is needed is not a tactical game plan to lure them into sporadic volunteer efforts but a new sensibility that welcomes the Mobile Generation into the civic square—with all the innovative messiness and costly disruption that such a move entails.

Notes

1. Shankar Vedantam, "Social Isolation Growing in U.S., Study Says," *The Washington Post*, June 23, 2006, p. A03.
2. Robert Putnam, "E Pluribus Unum: Diversity and Community in the Twenty-first Century—The 2006 Johan Skytte Prize Lecture," *Scandinavian Political Studies* 30 (2), June 2007.
3. Ali Levine, "No Strings Attached—Wireless Internet's Potential for Nonprofits," Nonprofit Technology Network, February 25, 2007. The Treos cost \$300 each. ReForm software cost \$125/month, plus \$975 for custom logic branching development.
4. ComNET: Computerized Neighborhood Environment Tracking, online at <http://www.fcny.org/portal.php/govt/cmngp/commnetsm/>.
5. Online at www.parkscan.org.
6. Doug Ramsey, "Meet Squirrel, a Personal Pollution Monitor," This Week@UCSD, April 23, 2007.
7. "New Tools: Go Mobile Now," New Politics Institute, October 15, 2007. Online at http://www.newpolitics.net/node/394?full_report=1.
8. "Health and the Environment Action Network," <http://www.hispanichealth.org/health/>.
9. Tad Hirsch and John Henry, "TXTmob: Text Messaging For Protest Swarms," online at http://web.media.mit.edu/~tad/pub/txtmob_chi05.pdf.
10. Ethan Zuckerman, video interview with J. D. Lasica, October 14, 2006.
11. Tim Chambers and Rob Sebastian, "Mobile Media in 21st Century Politics," New Politics Institute, p. 22, September 1, 2006. Online at <http://www.newpolitics.net/node/88>.
12. Robert Tait, "Heard the One About the President?," *Guardian Unlimited*, April 14, 2006. Online at <http://www.guardian.co.uk/iran/story/0,,1753857,00.html>.
13. Sarah Toms, "Philippine Tape in Ringtone Craze." *BBC News*, June 22, 2005. Online at <http://news.bbc.co.uk/2/hi/asia-pacific/4120042.stm>.
14. Hrvoje Hranjski, "Cellphone Messages Mobilize RP Crowds," *China Post*, February 28, 2006.
15. Katrin Verclas, "Texting It In: Monitoring Elections With Mobile Phones," [MobileActive.org](http://mobileactive.org/texting-it-in), August 11, 2007. Online at <http://mobileactive.org/texting-it-in>.
16. Roy Mark, "Tech-Savvy Gen Xers Boost Obama Win," *eWeek.com*, January 4, 2008. Online at <http://www.eweek.com/article2/0,1895,2243536,00.asp>.
17. "Teenage Activists Turn Out Nationwide To Protest Immigration Bills," Associated Press, April 1, 2006.

18. John L. German, "Mobile phones and new media in pro-Tibet protests," MobileActive.org, August 11, 2007. Online at <http://mobileactive.org/outstanding-innovative-u>.
19. Geoffrey A. Fowler, "'Citizen Journalists' Evade Blackout On Myanmar News," *Wall Street Journal*, page A1, September 28, 2007.
20. Katrin Verclas, "Text a Fish," MobileActive.org, August 1, 2007.
21. Jed Alpert and Chris Muscarella, "Go Mobile Now," New Politics Institute, 2007. Online at http://www.newpolitics.net/sites/ndn-newpol.civicaactions.net/files/Go_Mobile.pdf.
22. Anthony Bruno, "Acts, Audience Connect Via Text Messaging," Backstage.com, December 4, 2005. Online at http://www.backstage.com/bsa/news_reviews/multimedia/article_display.jsp?vnu_content_id=1001613878.
23. Celine Crawford, "Text For Change - Bono Calls on Europeans to Sign up for Africa Using the Power of SMS," Sun.com, June 28, 2005. Online at <http://ie.sun.com/sunnews/press/2005/2005-06-28.html>.
24. "Consultants Corner: Sending Out an SMS," Hotline on Call, July 14, 2006.
25. For full details, see <http://www.meetro.com/>.
26. For full details, see <http://www.mediaexprimo.jp/english/>.
27. For full details, see <http://murmurtoronto.ca/about.php>.
28. Jo-Anne Green, Digital Storytelling Festival, October 2005. Online at <http://transition.turbulence.org/blog/2005/10/31/digital-storytelling-festival/>.
29. For full details, see <http://blinkenlights.de/interactive.en.html>.
30. Andrew Kohut, "The internet gains in politics," Pew Internet & American Life Project, January 11, 2008. Online at http://www.pewinternet.org/PPF/r/234/report_display.asp.
31. Mary Madden, "Online Video: 57% of internet users have watched videos online and most of them share what they find with others," Pew Internet & American Life Project, July 25, 2007. Online at http://www.pewinternet.org/PPF/r/219/report_display.asp.
32. John Horrigan, "Wireless Internet Access," Pew Internet & American Life Project, February 25, 2007. Online at http://www.pewinternet.org/PPF/r/203/report_display.asp.
33. "Video Shows UCLA Police Using Stun Gun On Student," KNBC.com, Nov. 15, 2006. Online at <http://www.knbc.com/news/10325914/detail.html>.
34. Alan Reiter chronicles many of these developments at Cameraphonereport.com. Online at http://www.cameraphonereport.com/citizen_journalists_camera_phones/index.html.
35. Robert MacMillan, "Witnesses to History," *Washington Post*, July 8, 2005. Online at <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/08/AR2005070800584.html>.
36. Mark Glaser, "Did London bombings turn citizen journalists into citizen paparazzi?," Online Journalism Review, July 12, 2005. Online at <http://www.ojr.org/ojr/stories/050712glaser/>.

-
37. Ben White email to J.D. Lasica, January 10, 2008. Africa Interactive, the online publisher of AfricaNews.com, is based in the Netherlands and maintains a staff of more than 90 African journalists, photographers and filmmakers who contribute from more than 25 African countries, including Kenya.
- See Africa News: <http://www.africanews.com>.
- See mobile reports: <http://voicesofafrica.africanews.com/site/page/510:kenya>.
- Videos of the Kenya election:
http://www.africanews.com/site/page/news_archive?keywords=voicesofafrica_kenya_election.
38. For full details, see <http://www.mediabloggers.org/about>.
39. "D.E.F. Profiles," Diamond Empowerment Fund site. Online at <http://def.treemo.com>.
40. For full details, see <http://shareideas.org/index.php/About:About>.
41. For full details, see <http://www.sextextsf.org>. The program was based on a successful program in London operated by the Brook Advisory Centres.
42. For details, see Mobile Voter campaigns at <http://mobilevoter.org/campaigns.html>.
43. "Californians Lobby the Governor with Text Messages," Itsourhealthcare.org. Online at <http://itsourhealthcare.org/press.html>.
44. "Stories From Eyes on the Prize," KQED Digital Storytelling Initiative. Online at <http://dsi.kqed.org/index.php/projects/stories/C78/>.
45. Katrin Verclas, "Is mobile giving about to take off in the United States?," Mobileactive.org, February 12, 2008. Online at <http://mobileactive.org/mobile-giving-about-take-united-states>.
46. Roy Mark, "Verizon Wireless Reverses Pro-Abortion Text Messaging Decision," eWeek, September 27, 2007.
47. Laura M. Holson: "Cellphone Straitjacket Is Inspiring a Rebellion," *New York Times*, Nov. 12, 2007. Online at <http://www.nytimes.com/2007/11/12/technology/12cell.html>.
48. For details, see the Open Handset Alliance website at <http://www.openhandsetalliance.com/>.
49. "The Seven Biggest Mobile Content Stories of 2007," Fierce Mobile Content. Online at <http://www.fiercemobilecontent.com/story/seven-biggest-mobile-content-stories-2007/2007-12-21>.
50. Peter Sayer: "GPS about finding friends, not route," *Infoworld*, February 15, 2008. Online at http://www.infoworld.com/article/08/02/15/GPS-about-finding-friends-not-route_1.html.
51. Mark Dean: "Mobile phone, not PC, bridges digital gap," *San Jose Mercury News*, February 10, 2008. Online at http://www.mercurynews.com/ci_8222868?IADID=Search-www.mercurynews.com-www.mercurynews.com.

52. J.D. Lasica: "Mobile and education," a video interview in which Joaquin Alvarado outlined the proposal, Ourmedia.org, December 12, 2007, online at <http://ourmedia.org/node/382892>. TeacherEase is currently in use by over 20,000 teachers and 200,000 parents and students. The site's chief mission is "to inform and involve parents." More information online at <http://teacherease.com>.
53. This is a different approach than the one taken by the site ReporTwriters (<http://reportwriters.com>) or columnist Steve Outing's recent suggestions of a Twitter city desk and Twitter as an aggregator of reader news bits. Online at <http://www.steveouting.com/how-about-a-twitter-city-desk.html> and <http://www.poynter.org/column.asp?id=31&aid=133274>.
54. J.D. Lasica, *The Mobile Generation: Global Transformations at the Cellular Level*, Washington, D.C.: The Aspen Institute, 2007.
55. Laura M. Holson: "Text Generation Gap: U R 2 Old (JK)," *New York Times*, March 9, 2008. Online at <http://www.nytimes.com/2008/03/09/business/09cell.html>.
56. Ellen Lee: "SexTech takes sex education online for kids," *San Francisco Chronicle*, January 24, 2008. Online at <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/01/24/BUHHUJ7QB.DTL>.
57. Cynthia M. Gibson: "Citizens at the Center: A new approach to civic engagement," Case Foundation, 2006, p. 7. Online at http://casefoundation.org/c/document_library/get_file?repository_id=1&file_path=%2Fspotlight%2Fcivic_engagement&file_name=citizenship_whitepaper_030107.pdf.

APPENDIX

Mobile Advocacy Dos and Don'tsⁱ

Katrin Verclas

Why Use Mobile Phones for Advocacy?

The Internet has two distinct benefits over previous media: social interactivity and search. Mobile technology goes even further—not only can all elements of existing media be delivered via mobile, but there are also additional advantages of mobile that make it far superior to other media forms, including:

- Personal: We do not share our phones—they are highly personal devices;
- Always-carried: Our mobile devices go with us everywhere;
- Always-on: Mobiles are always on and as such are the ultimate news and alert media—faster by several magnitudes than any other media;
- Targeted: Mobile is the first mass media where every single consumer can be uniquely identified and content (and advertising) targeted to meet their interests;
- Donation and purchase channel: Mobile phones will become wallets offering alternatives to cash and credit cards;
- Creative input devices: With image and voice inputs users can create and share content via their mobile devices;
- Enhanced communications: On mobile devices, e-mail and instant messaging are complemented by SMS and MMS including visual communication.

i. Katrin Verclas, “Using Mobiles for your Cause: Do’s and Don’ts of mAdvocacy,” posted on MobileActive blog April 24, 2008. Available at <http://mobileactive.org/using-mobiles-advocacy-dos-and-donts-mobile-campaigns>.

The Dos: Effective Mobile Marketing

1. Mobile messaging should be about interaction, not just a sales pitch. This can be a hard notion to learn for advocacy organizations used to pushing email messages by the millions. Mobiles offer a unique opportunity for interaction. Advocacy organizations need to think about mobile marketing as a conversation, a way to interact two-ways with their constituents.
2. Trust is key here as the mobile medium is so very personal. Gain permission and offer relevant and timely content that is valuable to the recipient. Tell me how to opt out regularly and never ever spam me.
3. Pull people to mobile interaction through other media—ads, billboards, the web—and offer, in turn, mobile interaction with those media.
4. Be careful about targeting your demographics and ask accordingly—asking an older constituency to upload mobile photos is probably not going to be very successful.
5. Be relevant. Offer timely news and functional updates that are of interest to your audience—and be clever. Just by way of an idea: The American Lung Association could offer air quality updates via SMS for where I live, for example. If you are engaged in a campaign where I am signing a mobile petition let me know how it's going—how many signatures have been gathered. Remind me of events I have signed up for, or activities that are part of your organization's campaign. Give me information I want and need.
6. Be action-oriented. Ask me to forward a note, ask me to make a call, ask me to express myself in some way in a poll, 160 character message, poem or statement. Ask me to do something. Chances are, I will.
7. Ask me how I want to engage and give me choices. If we are interacting via SMS, do not ask me for my email. Give me an option to get SMS reminders when I sign up for an event with you. Tell me how to disengage. Let me opt in to a mobile alert via the web, via an 800 number and via a short code/SMS (and then compare what is most popular and effective for your purposes!).

8. Mobile marketing works best by pull, not push, and there is an opportunity for people to express themselves—to ‘talk’ back, to suggest, to respond. Humor works here!
9. Be creative. In addition to text messaging campaigns, there are a lot of other ways in which an advocacy organization can use mobile campaign tactics. For example,
 - Click-to-call: A constituent receives a message that places an outgoing call to a decision maker, pledge bank, or the organization itself (a member survey, for example). In a recent mobile advertising study by Nielsen Reports, nine percent of those who were exposed to a mobile advertisement responded with a call.
 - Click-to-locate: Help users find the nearest clinic, affiliate, meeting, organizer—you name it. While this may be a while away as location-based services are not very mature yet, keep an eye on it. Right now, there are too few handsets able to take advantage of click-to-locate services, and an SMS directory where users enter their zipcodes to get relevant information is still better.
 - Click-to-enter: Create a competition, such as those often used in commercial advertising. Nielsen reports that 26 percent of those who viewed a mobile advertisement responded with a text message to enter a sweepstakes. While not many advocacy organizations routinely run sweepstakes, fun competitions (a celebrity voice for your voicemail) might be an exciting engagement strategy!
10. Be whole-media. Integrate your mobile marketing and messaging into your entire media and messaging campaign. Do not let mobile be an add-on—it shows, and it costs you if not done well.

For advocacy organizations, mobile marketing is effective for facilitating dialogue with their constituents. This ‘third screen’ can create extended conversation, creating connections across online and traditional media exposures.

The Don'ts of Mobile Advocacy

1. Don't ask me to sign up with my mobile number and then never contact me with a text message until months later when I have long forgotten that I ever gave you my number. Opt me in right away with an immediate SMS reply and then start talking to me.
2. Don't bombard me with messages either. Too many messages are obnoxious and a sure way for me to immediately opt out of any further communications. When in doubt, ask me how often I want to be contacted.
3. Don't be quiet about how to opt out—I need to know that texting STOP, END, or OUT will get me out of further communications from you.
4. Don't give me ambiguous information (160 characters is not a lot!) in a text message or information impossible to understand because it's in texting gibberish. Test your messages to be sure that a recipient understands them and they are crystal clear.
5. Don't let me guess what I have to DO, what you are asking me to act upon. Always ask me to do something in your message—forward, call, text back, sign, you name it. Text messages are highly actionable, but if you don't ask, I won't do anything.
6. Don't give me any irrelevant information I don't need or can't use. Don't give me information that is too late to use, or irrelevant to where I am (my favorite example is the event alert AFTER the event has already happened).
7. Don't text me at 4:00 a.m.
8. Don't use mobile as a stand-alone medium. When I go to your website, I should see a reference to the mobile portion of the campaign—a short code to text into, text messages from supporters, campaign results including those generated by mobile, a widget to sign up, or whatever else makes sense in the context of your campaign. When you ask me to give you my email address, ask for my mobile and opt me in right then. When you put an ad somewhere, add a short code to get more information. In short, integrate your mobile strategy with your overall campaign and communications strategy. Mobile is just another arrow in your quiver!

9. Don't expect huge returns—at least not initially. Return on investment (ROI) will take time to materialize. Do measure the returns, though!
10. Don't be dour. Use humor, be personable, engage me and make me smile. I will like you better.

And finally: Don't wait to get your toes into the mobile campaign waters. This is the time to be ahead, to reach new constituencies, and to explore how a mobile strategy can advance your issue.

A Mobile Activism User's Guide

Jed Alpert

In this guide, we'll introduce you to the world of mobile activism and show you how you can take your organization mobile.

Mobile is a complex ecosystem, and it includes:

- *Telecom Carriers.* All mobile traffic is routed through telecom providers like Verizon, T-Mobile, and AT&T.
- *Handset Manufacturers.* A wide variety of companies manufacture mobile devices, from Apple's iPhone to boutique brands you haven't heard of yet.
- *The Internet.* A small number of mobile phones have web capability—users can check email and surf the web, though the experience can be uneven at times.
- *Application Providers.* Mobile application providers allow you to create and manage your mobile programs, often from a web-based application.

We'll mention a few pertinent facts about each of these areas, but we'll focus mostly on application providers; good providers will serve as a one-stop shop, so you won't have to deal with any complexity.

First, though, a short introduction to the various forms mobile programs can take....

Mobile Downloads

There's a good deal of buzz surrounding mobile applications like ringtones and wallpapers. There are some drawbacks, however:

- They don't work on every phone.
- Ringtones and wallpapers require users to download content.
- Depending on your programming, mobile applications can require heavy customization and lengthy development time.

SMS Messaging & Voice Applications

Text messaging is becoming the most popular form of communication on Earth. Mobile subscribers send more than one billion SMS messages per day in the U.S. alone.

Basics of SMS Messaging. Text messaging, or SMS (Short Message Service), is everywhere. In some parts of the world, text messaging is far more popular than traditional telephone calls. Here in the U.S. text messaging isn't just for the young anymore; SMS is popular among nearly every demographic, and the average age of a texter is over 30 years.

And why not? After all, text messages are concise (up to 160 characters) and timely, and they can reach your supporters wherever they are (95% of mobile subscribers have their handsets within arm's reach 24-7.) Better yet, mobile is a non-SPAM, opt-in-only medium. And for that reason, text message open and response rates are higher than in any other medium. In other words, mobile is a great way to reach out and mobilize your supporters—anytime, anywhere.

Getting Started

I'm interested in mobile; what's my first step? First, you'll choose a mobile application provider—a software solution that will let you create and manage your mobile campaigns. Using that software, you'll create a text messaging program and encourage your supporters to opt in by either

- a) texting a keyword to a short code, or
- b) filling out a webform on your webpage.

When a user does so, he will receive an automatic response message welcoming him to your campaign.

So what's a short code? A short code is just a 5- or 6-digit number that's used for opt-in text messaging programs. Mobile application providers will often provide you the use of a shared short code as part of their fee. This means that you'll be able to create keywords on that short code and then encourage your users to opt into your program.

Your mobile application provider may have other clients using this short code as well—this is what's called a “shared” short code. Don't

worry—your data is secure, because your mobile programs are distinguished from other groups' programs by your keywords.

Can I get my own short code? If your organization wants its own short code for branding purposes or any other reason, you can lease one from the Common Short Code Administration (typically, your mobile application provider will do this for you.) There will be some extra costs involved—the carriers will need to review and approve your program, and you'll have to pay to lease the code. (At time of press, it costs \$500 per month to rent a randomly chosen short code, and \$1000 per month for a vanity short code.) It also takes six to 12 weeks to get a short code approved, aggregated, and provisioned across all of the carriers.

I've built a list of subscribers—now what? Now you can do all kinds of things—mobile petitions, geo-targeted event notification, mobile town halls, rapid media response, text-to-call and text-to-screen campaigns, database-backed programs, or anything else you can think of. Just remember, text messages are most effective when you convey timely, urgent, and/or action-oriented information to your users.

A great example is GOTV; if your work involves turning people out to the polls, then you need to be using mobile. Recent studies by Princeton and the University of Michigan have shown that users who receive a text message reminder to vote on the day before an election are four to five percent more likely to do so.

CRM Integration. Depending on your mobile application provider, you can even integrate your mobile campaigns with your CRM data. Doing so allows you to target your messaging more precisely and conduct better data analysis on the back-end.

The User Experience

Text-to-call. When people opt in (or at any point thereafter), you can choose to send them a text-to-call message. This message will include a phone number; when the user connects to the number, they will hear a talking points audio message before being connected to the destina-

tion number you've specified. The user can connect by just pressing a button or texting back 'call.'

Text-to-screen. Messages can be pushed to Jumbotrons and screens, like the one in front of the California State House. You can syndicate messages across the entire web with flash widgets or tools for developers.

The Client Experience

Text-to-call Campaign. Clients can create text-to-call programs by deciding where they want to direct calls. They can upload an audio file or they can call in and record a message.

Text-to-screen Campaigns. Mobile clients push messages out by moderating incoming messages in a mobile vendor's user interface. Simple.

Data Applications. How Easy Are They? Step 1: Make a Spreadsheet. Step 2: Upload the Spreadsheet or use an API. It takes less than 5 minutes! You're done!

Competitive Representation and M-Governance

Charles M. Firestone

As politicians look for a competitive edge, one quality that always has appeal is a track record of serving constituents. Word of mouth and publicity along those lines adds to the politician's name recognition. If nothing else, those politicians higher up on the ladder of political office will have to keep up with the more visible constituent-pleasers below.

Several trends in business, technology and politics suggest a new phenomenon in the workings of democratic governance. I call it "competitive representation," and it could lead the way to a new form of mobile government (*m-government*), or even mobile governance (*m-governance*). Competitive representation can enhance the representative's standing with his or her constituents, promote government efficiency, better satisfy citizen demands of government, and enhance the democratic process.

Very simply, competitive representation is the competition among representatives in a given area for the time and attention of the citizen-consumer of government services. I contend that representatives from all jurisdictions and all levels of government (in the United States this would include representatives at the federal, state, county, city, township, school district and other local levels) will increasingly strive to become the "representative of first resort" for their constituents. By vying with each other to represent the constituent "upstream" and across jurisdictions, representatives will bring about a more efficient delivery of governmental services at all levels and jurisdictions and foster a more democratic society in the process.

The Rise of E-Government

The most visible aspect of electronic government, or "e-government," is the potential for new technology to help citizens obtain governmental services and participate in governmental processes more efficiently. In short, as in the private sphere, a direct connection between the citizen (customer) and governmental service agency (vendor) can make a transaction faster, cheaper, and more efficient. For example, going online to

obtain a driver's license renewal from the division of motor vehicles, or to pay a parking ticket, can save time, money and aggravation. Accordingly, governments around the world are exploring ways that new network and information technologies can improve services to the public. They are also looking for ways that citizens can become more involved in the democratic process, from the act of voting to that of participating in public hearings, and interact and communicate more with government as an important part of the governmental process.

Often, however, the typical citizen does not know what governmental services are available online, or if in need of a particular service, which agency offers it. In many cases, the citizen does not even know which jurisdiction among federal, state and local governments offers the service in question. For example, if there is a complaint about telephone service, to whom does one complain—the state Public Utilities Commission, the Federal Communications Commission, the local consumer affairs office, or some other agency? There does not appear to be an easily identifiable cross-jurisdictional citizens' advocacy service available to help, or an incentive for one to be created at the private or governmental level.

In fact, however, there is a set of governmental employees who, in many cases, do see themselves as citizen advocates: the elected representative at the local, state and federal levels. And there are incentives for all elected government officials to champion the plight of the voter, particularly as legislators view themselves as competitive with others representing those same citizens for the citizen's attention and loyalty. It is my contention that this concept of competitive representation will lead to greater constituency representation for the delivery of governmental services and, if nurtured, will ultimately lead to more active, direct democracy.

From E-Government to M-Government

The next step in e-government is going mobile. The "third screen" of the mobile telephone has reached a penetration level throughout the nation and the world much greater than that of any other media or communication device. It is more personal and direct, as well, so many new applications are exploring mobile technology's potential. In short, moving to mobile technology increases the reach and potentially the ease of e-government. European countries are at the forefront in this area.

Three current trends in business, technology and politics suggest that competitive representation for the citizen's loyalty will soon be upon us.

Trend 1: Business

Businesses reinvent themselves around the customer. If a business were to reengineer or reinvent itself, it would start first with its customer base. How can the business get close to its potential customer, gain his or her attention and loyalty, and maintain a continuing relationship with the customer for the goods or services being offered? Certainly, the use of customer service representatives is now commonplace, and the use of the web to serve the customer through the creation of a virtual community is a well-accepted new business tactic. John Hagel and Arthur Armstrong, in *Net Gain*, (Harvard Business School, 1997, p. 17) describe "reverse markets" where "the customer, armed with a growing amount of information, uses that information to search out vendors offering the best combination of quality and price tailored to his or her individual needs." Indeed, in a 1999 *Harvard Business Review* article entitled, "Unbundling the Corporation," Hagel and Marc Singer suggest that "customer relation management" is one of three core elements of every business.

As the government looks at the use of technology in the delivery of government services, it would make sense to recognize the emergence of reverse markets and to center its processes on the customer, in this case, the recipient of government services. The problem is that there is a reverse incentive in government to deliver services, namely that instead of additional "customers" bringing in additional revenues, they often bring additional costs. To have citizen service representatives navigate various government services on behalf of a recipient of governmental services lacks a natural revenue source. Financially, a government agency does not have an incentive to add to its costs in order to bring more recipients of services that will cost that agency even more to serve. And the potential customers for these services are not anxious, and at times not able, to pay for these navigational needs.

Furthermore, the average citizen who wants services neither knows nor cares which jurisdiction—federal, state, regional or local—will be the right one for his or her needs. In the above example, where does one go to complain about a telephone bill? (Answer: it depends on the

nature of the call and the nature of the complaint.) On the other hand, jurisdiction is the key ingredient for the government agency. If the complaint is not the responsibility of a given agency, the odds are the complaint will be rejected. At best, the agency will tell the complainant where to go next. In most cases, the citizen will be back to square one.

Trend 2: Technology

Portals can help navigate upstream through a broad landscape. As stated above, one significant issue in the delivery of government services is identifying the right place to go, finding the correct person and transacting the business. Many government agencies (for example, the U.S. Internal Revenue Service and the Social Security Administration) are looking to web solutions to become more efficient in the delivery of their services. But if the citizen does not know where to go or what to ask, the need remains unfulfilled.

Certainly the new web portals offer some prospect for resolving this dilemma. Portals and exchanges exist to bring to the consumer's attention a choice of the products and services available in the marketplace. Amazon and Barnesandnoble.com bring millions of book choices, Travelocity and Orbitz bring travel arrangements, and Yahoo! and Google find websites. Theoretically, one could go on a website aimed at helping the citizen (e.g., *www.egovt.com*), navigate one's way to the specific jurisdiction that could be of help, and connect for the needed service.

The technology and software are here, but who has the incentive to create such a portal? As indicated above, a governmental agency portal has a jurisdictional issue: how and why direct the customer to a different jurisdiction or agency? The agency may not even know what is available at other agencies or in the other jurisdictions. If a private, commercial portal, e.g., GovWorks.com, what is the business model? What is the financial incentive to create and maintain an all-encompassing citizen's advocacy portal? Where does the money come from?

Trend 3: Politics

Politicians increasingly find themselves facing challenges from other politicians for their elective office; constituent services are a way of retaining voter loyalty. Enter the third trend, that of politics. This trend is a

long wave: over the past century, we have seen increasing challenges both within and among parties for elective office at all levels of government. Politicians find that the ladder of political office often becomes clogged at the top, where the office is “better” and there are few offices “above” the one occupied. Even with the recent trend toward noncompetitive congressional districts, there is still pressure within a party to move up the ladder. Politicians are, after all, ambitious people. Term limits add to the opportunities for movement within the party.

As a member of Congress recently told me, quite plainly, certain people in his state legislature are gunning for his job. This is nothing new to politics, as there is generally a progression for office-seeking: local, state and federal offices, with the wider jurisdiction of the office (e.g., statewide) taking precedence over smaller jurisdictions. As a member of Congress spends longer time in office, the pathway to higher office gets clogged as popular politicians want to move up the ladder. The pressure from below will rise in coming years, as the trend toward more confrontational politics will continue within parties, and of course across party lines.

As intra-party competition intensifies, each candidate wants to be thought of as a household name, or at least retain a high level of name recognition among prospective voters—a sense of familiarity and loyalty. Many find that maintaining a high level of service, even advocacy, for constituents—that is, representation of the constituent before the government—is an excellent way into the hearts and minds of voters. We all know of legislators who are viewed as weak on policy but nevertheless are regularly reelected because of their attention to constituents’ needs. The competitive process inherent in political campaigns for election is just the beginning. Politicians are constantly running for reelection, and will find that their future opponents likely will come from within their own party’s ranks.

Meanwhile, in a world of information abundance and “information overload,” there are two notable scarcities: knowledge and attention. Commercial advertisers are finding that one way to overcome the clutter of information bombarding individuals everyday is either to customize and target specific information for that particular individual, or to create an attractive community that attracts the consumer.

Politicians running for office find the same dilemmas and solutions. They target information through direct mail campaigns and create websites intended to attract constituents and potential voters. Former Florida Governor Jeb Bush, for example, even had a section for young children (well below voting age) on his 1998 gubernatorial campaign website. More and more, politicians and elected officials will want to rise above the crowd, to be the representative of first resort, by creating a web presence that attracts potential voters.

Competitive Representation: Issues and Incentives

These three trends, then—reinvention of business services with the consumer at the center, upstream navigational software, and increased competition for the citizen's attention and loyalty—lead to the conclusion that elected representatives should take it upon themselves to serve as the navigational intermediaries for citizens to interface with governments across jurisdictions.

In their pursuit of citizen loyalty and support, elected representatives will recognize that representing the citizen-consumer upstream, across jurisdictional lines, brings benefits to the citizen, governments, and the representative. The citizen finds the correct service, governments can avoid misdirected and unnecessary inquiries, and the representative is seen by his or her constituents as representing them in a time of need.

Accordingly, elected representatives should and will embrace navigational software that allows constituents to go upstream to access governmental benefits and services at all jurisdictional levels. It is good politics *and* good government wrapped into one. An intermediary with knowledge will find the right jurisdiction and agency for the problem at hand, and an intermediary with clout will help make sure the constituent is heard. In addition to its good sense, however, it will become a competitive necessity for legislators as competition for citizen loyalty increases.

Of course, the intermediary with clout in this realm is the one with budgetary responsibilities: the legislator. Here the problem of jurisdiction again comes to the fore. Whereas the federal legislator has clout with the federal agency, and the state legislator has clout with the state agency, this is not necessarily true across jurisdictions. This could emerge as an issue. But the more acute need is navigation and attention. That can come from any legislator, or intermediary with an incen-

tive to find the right solution for the citizen. Where clout is actually needed, alliances will likely be formed among political office-holders. As in the business world, one may be in competition one day and in an alliance the next.

Accordingly, it would be good for citizens, for efficient government, and for democracy in general, if legislatures at all levels would increase appropriations to their own representatives' offices for upstream constituent services. At a time when allocation of funds to government is not popular, increasing budgets of legislative offices would seem counterintuitive. But if used to advance citizen services, it would be a plus for democracy and, in the longer run, could lead to a reduction in the costs of the agencies providing services who are currently dealing with misdirected claims.

The Future of M-Governance

As the mechanisms undergirding competitive representation evolve, the benefits will extend to governance in general, and to e-governance in particular. And, with the utilization of mobile technology, it will now extend to m-governance as well. That is, as representatives and constituents dialogue about having government work better for a particular problem, trust emerges. Constituents will be more familiar with governmental services, and representatives will be more likely to listen to the constituent on issues relating to the functions of governance. It becomes an online feedback mechanism for establishing a way for an office-holder to communicate with constituents. As a by-product, the office-holder uses constituent services to gain name recognition and loyalty.

Former House Speaker Thomas P. "Tip" O'Neill said that all politics is local. The global forces of competition and technology will increasingly reach local politics, and that will be better for democracy, efficient government, and "m-governance."

Glossary of Terms

Aggregator—see Connection Aggregator and Content Aggregator

Application Programming Interface (API)—a source code interface that an operating system, library or service provides to support requests made by computer programsⁱⁱ

Bluetooth—a wireless system that allows communications devices to communicate with each other across very short distances

Common Carrier—a telecommunications provider that provides service to the public without discriminating among different consumers or content

Common Short Code (CSC)—see Short Code

Competitive Representation—the competition among representatives in a given area for the time and attention of the citizen-consumer of government services

Connection Aggregator—an organization that facilitates connectivity to the networks of participating wireless service providers so that a message addressed to a common short code (CSC) can be routed from the wireless network to the proper application; typically, the first point of wireless network connectivity for a mobile campaign

Content Aggregator—An organization that combines information such as news and entertainment, sports scores, weather forecasts, photographs and video from a variety of sources and makes the combined content available to its customers

Crowdsourcing—outsourcing a task traditionally performed by a paid individual to a large, undefined group of unpaid individuals, generally through the use of communications technology

Customer Relationship Management (CRM)—an established technology-based process that allows a business to communicate with consumers in order to best understand their evolving needs and wants

ii. Definition from Wikipedia, <http://en.wikipedia.org/wiki/API>, April 24, 2008.

Flash Mob—a group of individuals amassed and dispersed with little notice for a specific purpose through mass text messaging

Global Positioning System (GPS)—a system using signals between terrestrial devices and earth-orbiting satellites to track such characteristics as location and speed

Handset—a hand-held mobile communications device, such as a cell phone, that transmits and receives wireless signals

Mobile application—a software program that allows a mobile device to perform a new task

MMS (Multimedia Message Service)—a standard defined by The Open Mobile Alliance for sending and receiving messages with rich content (e.g., video) over mobile telephony networks

Mobi-sodes—a broadcast television episode designed specifically for a small mobile-device screen and short duration

Municipal wireless—a wireless Internet network providing broadband access to an entire geographic community

Network neutrality—a principle requiring Internet providers to act as common carriers, i.e. not discriminate among content or users in regards to the delivery of information

Open Platform—a software system which permits any device or application to connect to and operate on its network

Short code—special telephone numbers, generally of fewer than the traditional seven digits, used to address text messages from mobile devices

Smart phone—a handheld device capable of advanced tasks beyond those of a standard mobile phone

SMS Messaging (Short Message Service)—a system that allows the exchange of short text-based messages between mobile devices

Wireless Application Protocol (WAP)—an international technological standard enabling Internet access for mobile devices

Wi-fi, or Wireless Fidelity—a simple system allowing enabled devices to connect to the Internet within short range of any access point without cables or adaptors of any sort

Wiki —software that allows a group of people to collaboratively edit a single website

Wireless Internet Service Provider (WISP)—Internet service providers with networks built around wireless networking, typically found in rural communities where cable and digital subscriber lines (DSL) are not available. WISPs have been subject to limitations on range and bandwidth due to equipment quality and line-of-sight issues and are subject to interference from a range of natural and manmade sources.

Aspen Institute Roundtable on Mobile Media and Civic Engagement

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In a previous life, Lasica was an editor at the *Sacramento Bee* and served in senior management at several Silicon Valley startups. He has written for the *Washington Post*, *Salon*, *Legal Affairs* and other publications. He lives in the San Francisco area and is a frequent speaker and panelist at new media and technology conferences. He welcomes email, but not spam, at jdlasica@gmail.com.

Previous Publications of Interest by the Aspen Institute Communications and Society Program

Media and Values: Issues of Content, Community and Intellectual Property

Richard P. Adler, Drew Clark and Kathleen Wallman, rapporteurs. This report examines how the new media paradigm intersects issues of content values, intellectual property and local community. The report frames the debates surrounding such topics as offensive, harmful or missing content; fair use, new business models and international approaches to intellectual property; and local media and the future of democracy. It also offers constructive suggestions for resolving several of the more contentious challenges that have accompanied developments in new media. The report stems from the 2007 Aspen Institute Forum on Communications and Society. ©2008, 90 pages, ISBN: 0-89843-488-2, \$12.00.

The Mobile Generation: Global Transformations at the Cellular Level

J.D. Lasica, rapporteur. This report examines the impact that cellular phones are having on personal behavior cultural norms. It also includes predictions of future trends resulting from the diffusion of mobile technologies, as forecasted by roundtable participants. ©2007, 66 pages, ISBN: 0-89843-466-1, \$12.00.

Next-Generation Media: The Global Shift

Richard P. Adler, rapporteur. This report examines the growth of the Internet and its effect on a rapidly changing area: the impact of new media on politics, business, society, culture, and governments the world over. Specific sections examine user-generated content, social networks and marketing to the next generation. The report also sheds light on how traditional media will need to adapt to face the competition of the next-generation media. ©2007, 76 pages, ISBN: 0-89843-469-6, \$12.00.

The Rise of Collective Intelligence: Decentralized Co-Creation of Value as a New Paradigm of Commerce and Culture

David Bollier, rapporteur. This report describes how collective intelligence affects business value creation and passion-based collaborative learning resulting in new user generated business and media models. The Report includes an account of “The Cloud” or utility computing. ©2007, 64 pages, ISBN: 0-89843-481-5, \$12.00.

A Framework for a National Broadband Policy

Philip Weiser, rapporteur. Condensing discussions from the 2007 Conference on Communications Policy and Aspen Institute Roundtable on Spectrum Policy (AIRS) into a single report, Professor Philip Weiser of the University of Colorado at Boulder offers a series of specific and concrete policy recommendations for expanding access, affordability, and adoption of broadband in the United States. ©2008, 94 pages, ISBN: 0-89843-484-X, \$12.00.

Reports can be ordered online at www.aspeninstitute.org or by sending an email request to publications@aspeninstitute.org.

About the Communications and Society Program

www.aspeninstitute.org/c&s

The Communications and Society Program is an active venue for global leaders and experts from a variety of disciplines and backgrounds to exchange and gain new knowledge and insights on the societal impact of advances in digital technology and network communications. The Program also creates a multi-disciplinary space in the communications policy-making world where veteran and emerging decision-makers can explore new concepts, find personal growth and insight, and develop new networks for the betterment of the policy-making process and society.

The Program's projects fall into one or more of three categories: communications and media policy, digital technologies and democratic values, and network technology and social change. Ongoing activities of the Communications and Society Program include annual roundtables on journalism and society (e.g., journalism and national security), communications policy in a converged world (e.g., the future of video regulation), the impact of advances in information technology (e.g., "when push comes to pull"), advances in the mailing medium, and diversity and the media. The Program also convenes the Aspen Institute Forum on Communications and Society, in which chief executive-level leaders of business, government and the non-profit sector examine issues relating to the changing media and technology environment.

Most conferences utilize the signature Aspen Institute seminar format: approximately 25 leaders from a variety of disciplines and perspectives engaged in roundtable dialogue, moderated with the objective of driving the agenda to specific conclusions and recommendations.

Conference reports and other materials are distributed to key policy-makers and opinion leaders within the United States and around the world. They are also available to the public at large through the World Wide Web, www.aspeninstitute.org/c&s.

The Program's Executive Director is Charles M. Firestone, who has served in that capacity since 1989, and has also served as Executive Vice

President of the Aspen Institute for three years. He is a communications attorney and law professor, formerly director of the UCLA Communications Law Program, first president of the Los Angeles Board of Telecommunications Commissioners, and an appellate attorney for the U.S. Federal Communications Commission.

About the Center for Renaissance Journalism

San Francisco State University

The Center for Renaissance Journalism conducts research, training and convening to identify and to spark promising journalistic models and practices that serve, strengthen and empower communities. The Center was created by San Francisco State University's Journalism Department at a time when journalism and the media are experiencing revolutionary change. The Center seeks to ensure that the concerns and interests of community are served as media, technology and business evolve. Discovering new opportunities will require varied approaches, such as working to improve the burgeoning ethnic news media, examining new business models that will sustain community-oriented journalism, forging improved relationships between journalists and community, and empowering community leaders with new tools for storytelling and networking. These explorations will require an interdisciplinary and collaborative approach that connects the media, the community and the academy. The Department of Journalism enjoys a strong reputation for emphasizing the interests of the community in training new journalists, and the San Francisco Bay Area offers a rich and diverse setting for this work. The Center is led by Professor Jon Funabiki, a former international affairs journalist and Deputy Director of the Media, Arts & Culture Unit of the Ford Foundation.

