Is There a Link Between Digital Media and Good Governance?
What the Academics Say

A Report to the Center for International Media Assistance

By Mary Meyers

June 19, 2013

About the Author

Mary Myers is a freelance consultant, based in the United Kingdom. Her specialties are media in Africa, radio serving the poor, monitoring and evaluation, and gender issues. A freelancer since 1996, her background, prior to that, was in project management with various UK-based NGOs such as Christian Aid and SOS Sahel. From 2002-2003, she was a communication adviser to the UK's Department for International Development. In 2004 she completed her PhD at Reading University–her thesis was on radio and rural women in Eritrea. Currently she is part-time media adviser to France Expertise Internationale in the Democratic Republic of Congo. She still often works for DFID and has also recently worked with other clients such as the World Bank, Centers for Disease Control and Prevention, Swiss Development Cooperation, BBC Media Action, International Development Research Center, Search for Common Ground, Farm Radio International, and others. She is the author of three previous CIMA reports–*Voices from Villages: Community Radio in the Developing World*, *Funding for Media Development by Major Donors Outside the United States*, and *Is There a Link Between Media and Good Governance? What the Academics Say*.

Table of Contents

Preface

The Center for International Media Assistance at the National Endowment for Democracy commissioned this study of the connection between digital media and good governance. The report surveys the writing of 10 noted scholars in the field of digital media.

CIMA is grateful to Mary Myers, an expert on international media development with many years of experience in this field, for her research and insights on this topic. We hope that this report will become an important reference for international media assistance efforts.

Marguerite H. Sullivan
Senior Director
Center for International Media Assistance

Author's Note

In deciding whom to include and whom to leave out of this collection of profiles I faced three main challenges. First, I am conscious that for every scholar I chose to include, there are at least 10 more who are equally good and would have been equally (if not more) obvious choices. I have tried for a balance of sorts: of points of view; of disciplines (political scientists, sociologists, law scholars, an anthropologist); of backgrounds; and between famous and less well-known. Even so, I am conscious that the final selection skews male and North American.

Second, in the field of digital technology, the boundaries between academics and non-academics is becoming increasingly blurred, so defining who is an academic and who isn't, is a problem. This is partly because the traditional publishing paths that most academics used to follow (writing books and articles for scholarly journals) now seem too slow in comparison with the pace at which the field itself is moving. Many academics now spend as much of their time blogging, lecturing online, and writing for (online) newspapers as they do writing for academic journals. Equally, several of the thinkers I have profiled here, while being based at academic institutions, prefer to write in non-academic language and convey their views in a more journalistic style.

Third, I faced a challenge to compress and summarize large fields of inquiry into a short, accessible report. Therefore I am conscious that I have taken a partial selection of each academic's output, and even then, have probably not done them justice. All the scholars profiled here have many more publications to their names and several more research interests than I have had sufficient space to mention.

A special word of thanks goes to the academics quoted here who kindly reviewed the first draft and suggested several excellent edits and additional points .

Finally, I am grateful to Simon Davison, Anne Nelson, and Sameer Padania, whose comments and suggestions were particularly helpful.

Introduction

Is there a link between new digital technologies and good governance? What, if any, are the connections between increasingly digitally equipped populations and political change? Did social media contribute to the recent uprisings across the Arab world and other political and social movements? Is it legitimate to talk about "liberation technology?"

This report examines these questions by looking at what some key academics say on the matter, in a concise and accessible way. It is a follow-on from a previous CIMA report, by the same author, which profiled a number of key academics and their research on the links between *traditional* media and good governance. This report turns, instead, to *digital* media and brings a selection of some key academic writing to a non-academic audience.

For the purposes of this report, the term digital media is used to denote all the various types of new information and communication technologies such as the Internet, social networking tools such as Facebook and Twitter, blogs, podcasts, SMS and mobile phones. The terms ICTs, digital media, and new technologies are used interchangeably, and the term social media is seen as a subset of digital media.

The term "good governance" encompasses democratic processes and in particular government accountability, the realization of human rights, free expression, the rule of law, and the development of civil society and practices of citizenship.

The scholars included here were chosen either because they are representatives of a particular theoretical standpoint, or because they are making particular empirical contributions to the field through their research (or in some cases they are doing both). The report is organized into two main parts. The first presents the overarching theory and debate from two opposing standpoints that can be crudely characterized as the techno-optimists versus the techno-pessimists. On the one side are Clay Shirky and Larry Diamond who take an optimistic perspective about the potential for digital technology to drive positive political change, and, as a counterpoint, are two "Internet skeptics," Evgeny Morozov and Christian Christensen.

The second part looks at some empirical research and country case studies by a number of academics from different disciplines; law, political science, and anthropology. Ron Deibert examines the relationship between free expression and the Internet by researching cyber-espionage, surveillance, and control. Rebecca MacKinnon has looked in particular at blogging in China and asks whether the Internet is a force for democratization there. A team from Harvard comprising Archon Fung, Hollie Russon-Gilman, and Jennifer Shkabatur have done

impact case studies of new technologies in middle income and developing countries and have some interesting insights for would-be funders and supporters of technological interventions who are attempting to increase accountability. Finally Linda Herrera has analyzed the role of social media among the "wired generation" of youth, in the recent uprisings in the Middle East, with a particular focus on Egypt.

Overview of The Theory And Debate:

The Techno-Optimists Versus the Techno-Pessimists

Clay Shirky

Clay Shirky
(copyright research.microsoft.com)

Clay Shirky is an American writer, consultant and teacher on the social and economic effects of Internet technologies. He currently holds a joint appointment at New York University, as an associate arts professor at the Interactive Telecommunications Program and as an associate professor in the Journalism Department.

Selected relevant publications:

Clay Shirky, *Here Comes Everybody: How Change Happens When People Come Together*, London: Penguin, 2009.

Shirky, "The Political Power of Social Media: Technology, the Public Sphere and Political Change," *Foreign Affairs*, January/February 2011.[1]

Gladwell, M. and Shirky, C., "From Innovation to Revolution: Do Social Media Make Protests Possible?," *Foreign Affairs*, March/April, 2011.

Shirky is often characterized as a techno-optimist and as someone "in love with the Internet."[2] He is best known for his books *Here Comes Everybody: The Power of Organizing Without Organizations* (first published 2008) and *Cognitive Surplus: Creativity and Generosity in a Connected Age* (2010).

He has spoken and written in various places (books, articles, TED talks[3], online blogs), on the question of digital media's power to effect positive democratic change. For example, in his book *Here Comes Everybody: How Change Happens When People Come Together*, he asserts:

- "We now have communication tools that are flexible enough to match our social capabilities, and we are witnessing the rise of new ways of coordinating action that take advantage of that change … we are living in the middle of a remarkable increase in our ability to share, to cooperate with one another, and to take collective action, all outside the framework of traditional institutions and organizations."[4]

- "Social tools create what economists would call a positive supply-side shock to the amount of freedom in the world."[5]

- "The power to coordinate otherwise dispersed groups will continue to improve; new social tools are still being invented and however minor they may seem, any tool that improves shared awareness or group coordination can be pressed into service for political means, because the freedom to act in a group is inherently political."[6]

- "Increased flexibility and power for group action will have more good effects than bad ones, making the current changes, on balance, positive."[7]

In making these bold claims he has been criticized on many occasions, most notably by Evgeny Morozov (see profile below). Morozov has called Shirky "the man most responsible for the intellectual confusion over the political role of the Internet."[8] In response,[9] Shirky admits that he has fueled the "overtly simplistic" argument that "the effect of social media on the lives of citizens in authoritarian regimes will be swift, unstoppable, and positive" and concedes he has given rise to undue optimism "by discussing mechanisms through which citizens can coordinate group action, while failing to note the ways that visible public action also provides new counter-moves to repressive regimes." He says, "Morozov is right to criticise me for this imbalance, and for the resulting (and undue) optimism it engenders about social media as a democratising force; I stand corrected."

However, Shirky continues to defend the notion "that social media improves political information cascades…[10] It also represents a new dynamic within political protest, which will alter the struggle between insurrectionists and the state, even if the state wins in any given clash. Where this will lead to a net advantage for popular uprisings in authoritarian regimes is an open question–and a point on which Morozov and I still disagree on– but the new circumstances of coordinated public action, I believe, marks an essential change in the civilian part of the 'arms race.'"

Shirky has responded to Morozov's criticisms in several other places, including in the above-mentioned blog, saying: "Morozov … [implies] that people like me who think that social tools can improve outcomes actually believe that tools cause those outcomes."[11]

In fact Shirky does not assert a causal link between digital tools and democracy. For instance, he says, "The use of social media tools … does not have a single preordained outcome."[12]

Rather, Shirky says, social and digital media have a long-term effect on enhancing democracy *in conjunction with a well-developed public sphere and strong civil society*: "the potential of social media lies mainly in their support of civil society and the public sphere–change measured in years and decades rather than weeks or months."[13] Ultimately, he says, "The safest characterization of recent quantitative attempts to answer the question, Do digital tools enhance democracy? ... is that these tools probably do not hurt in the short run and might help in the long run–and that they have the most dramatic effects in states where a public sphere already constrains the actions of the government."[14]

In contrast to Morozov, Shirky remains a self-proclaimed optimist about the balance of power between citizens and the state, asserting that social media give citizens "a net advantage" because "the easier the assembly of citizens, the more ubiquitous the ability to document atrocities. And the more the self-damaging measures which states take–like shutting down mobile phone networks–will resolve themselves as a net advantage for insurrection within authoritarian regimes."[15]

On U.S. foreign policy and the pursuit of Internet freedom in non-democratic states, Shirky says the "instrumental" approach to Internet freedom (which concentrates on preventing states from censoring outside Websites, such as Google, YouTube or that of the *New York Times*) is "politically appealing, action-oriented and almost certainly wrong."[16] The reason for this, he says, is that it "overestimates the value of access to information, particularly information hosted in the West, while underestimating the value of tools for local coordination.[17]

Instead of the "instrumental" view of Internet freedom, Shirky suggests replacing it with an "environmental" one whereby positive changes in the life of a country, including pro-democratic regime change, "follow rather than precede the development of a strong public sphere." A strong public sphere involves, crucially, "access to conversation," not so much access to information: "A slowly developing public sphere, where public opinion relies on both media and conversation, is the core of the environmental view of Internet freedom." Thus, Internet freedom is a "long game," says Shirky, "to be conceived of and supported not as a separate agenda but merely as an important input to the more fundamental political freedoms."[18]

Larry Diamond

Larry Diamond
(copyright www.ned.org)

Larry Diamond is a professor of sociology and political science at Stanford University. He is a senior fellow at the Freeman Spogli Institute for International Studies, where he directs the Center on Democracy, Development, and the Rule of Law. Diamond also serves as the Peter E. Haas faculty co-director of the Haas Center for Public Service at Stanford and is a senior fellow at the Hoover Institution, also on the campus of Stanford University. He is the founding co-editor of the *Journal of Democracy* and also serves as senior consultant (and previously was co-director) at the International Forum for Democratic Studies at the National Endowment for Democracy.

Relevant selected publications:

Larry Diamond, *The Spirit of Democracy: The Struggle to Build Free Societies Throughout the World*, New York: Times Books, 2008.

Diamond and Marc F. Plattner, eds., *Liberation Technology: Social Media and the Struggle for Democracy*, Baltimore: The John Hopkins University Press, 2012.

Diamond, "The Coming Wave," *The Journal of Democracy*, Vol. 23 no. 1, pages 5-13, 2012.

Diamond does not presume that ICTs are intrinsically liberating, (that is, inherently good for promoting freedom, accountability and democracy), just that they *can* be. In his edited collection, *Liberation Technology*, Diamond says: "the balance of potency between ICTs as democracy-boosters and ICTs as repression-enablers remains dynamic and fluid." However, his optimism persists: "I remain, on balance, optimistic about liberation technologies' potential to raise democratic consciousness and capacities and ultimately to promote democratic transitions in authoritarian regimes."[19]

He writes: "In the end, technology is merely a tool, open to both noble and nefarious purposes … Yet to the extent that innovative citizens can improve and better use these tools, they can bring authoritarianism down–and in several cases they have."[20] He cites several examples including:

- The toppling of Philippine president Joseph Estrada in 2001, "when … more than a million digitally mobilized Filipinos assembled at a historic protest site in Manila."

- The Orange Revolution that toppled the electoral authoritarian regime in Ukraine via mass protests during 2004, which were helped by the Internet newspaper *Ukrainskaya Pravda*, website discussion boards, and text messaging, which "helped mobilize and coordinate the massive public protests–bringing hundreds of thousands to Kyiv's Independence Square in freezing weather–that ultimately forced a new runoff, won by the democratic opposition."

- Iran's Green Movement of 2009, which he calls "the most dramatic recent instance of digital mobilization."[21] Although the movement has not succeeded, in that "the Islamic Republic's reactionary establishment has clung to power," Diamond believes that "digital technology … has vividly documented abuses, alienating key pillars of the regime's support base, including large segments of the Shia clergy … [and] the Internet has fostered civic and political pluralism… ; linked the opposition with that country to the Iranian diaspora and other global communities; and generated the consciousness, knowledge, and mobilization capacity that will eventually bring down autocracy in Iran. A key factor affecting when that will happen will be the ability of Iranians to communicate more freely and securely online."[22]

Furthermore he asserts, "Mobilizing against authoritarian rule represents only one possible 'liberating' use of digital ICTs. Well before mobilization for democracy peaks, these tools may help to widen the public sphere, creating a more pluralistic and autonomous arena of news, commentary, and information. The new ICTs are also powerful instruments for transparency and accountability, documenting and deterring abuses of human rights and democratic procedures."[23] Diamond argues that "there is now a technological race between democrats seeking to circumvent Internet censorship and dictatorships that want to extend and refine it." Therefore, he argues, "Rich liberal democracies need to do much more to support the development of [circumvention] technologies, and to facilitate (and subsidize) their cheap and safe dissemination to countries where the Internet is suppressed."[24]

In *The Spirit of Democracy* Diamond argues that "through expanding economic freedom, civic mobilization, and the development of 'liberation technology,' even seemingly entrenched regimes like those in Iran and China could well become democracies within a generation."[25]

In his 2012 article "The Coming Wave," Diamond argues that any great advance of democracy this decade is most likely going to emanate from East Asia and that digital media will provide a significant impetus:

> If Singapore remains in the grip of a half-century long single-party hegemony, that hegemony now seems to be entering a more vulnerable phase, as opposition parties find new energy and backing, as young people flock to social media to express themselves more openly, as independent media crop up online to provide a fuller range of news and opinions, and as the ruling party feels compelled to ease censorship and other controls. Singapore, in other words, has already joined the ranks of the world's "competitive authoritarian" regimes–the class of autocracies among which democratic transitions are most likely to happen.[26]

Evgeny Morozov

Evgeny Morozov
(copyright www.evgenymorozov.org)

Evgeny Morozov is a writer, researcher, and blogger, currently contributing editor at The New Republic magazine and previously visiting scholar at Stanford University and a fellow at Georgetown University.[27] He is originally from Belarus and is now a U.S. resident.

Selected Publications:

Evgeny Morozov, 2011, *The Net Delusion: The Dark Side of Internet Freedom / How not to Liberate the World*, Penguin Books: London.

Morozov, "Whither Internet Control?" *Journal of Democracy*, 22.2 : 62-74, 2011.

Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism*, New York: Public Affairs, 2012.

Morozov is a skeptic about the power of the Internet to bring about democratic change. His best known book, *The Net Delusion: The Dark Side of Internet Freedom* (2011) argues against the notion that the Internet is essentially liberating, dubbing this notion "cyber-utopianism." Morozov alerts his readers to the Internet's dark side; its capacity to be used by authoritarian regimes for surveillance, repression, propaganda, and control of the digital media space.

Like Larry Diamond, Morozov takes the case of the Green Movement which protested against the results of the election in Iran in 2009, but, in contrast to Diamond, he attacks the Western media and "technology pundits" who hailed the Iran case as a liberation movement driven by Twitter and other social media. Morozov says: "The irrational exuberance that marked the Western interpretation of what was happening in Iran suggests that the green-clad youngsters tweeting in the name of freedom nicely fit into some pre-existing mental schema that left little room for nuanced interpretation, let alone skepticism about the actual role the Internet played at the time."[28] He adds "as the Green Movement lost much of its momentum in the months following the election, it became clear that the Twitter Revolution so many in the West were quick to inaugurate was nothing more than a wild fantasy."[29]

He goes on to argue not only that technology eventually was powerless to sustain the Green Movement in Iran, but also that the movement's radical activists were further persecuted as a result of the very tool which was meant to have been their liberation: the Web. "Not surprisingly, once the protests quieted down, the Iranian authorities embarked on a digital purge of their opponents. In just a few months, the Iranian government formed a high-level twelve-member cybercrime team and tasked it with finding any false information–or, as they put it, 'insults and lies'–on Iranian websites. Those spreading false information were to be identified and arrested."[30]

Furthermore, Morozov argues, Iran, Russia, and China became alerted to Western support for Twitter-empowered activists and "interpreted Washington's involvement in Iran as a warning sign that digital revolutions facilitated by American technology companies are not spontaneous but carefully staged affairs"[31] spelling the launching of "online warfare" by America. Thus, Morozov concludes "the global repercussions [of Iran's Twitter revolution] … were … extremely ambiguous, and they often strengthened rather than undermined … authoritarian rule."[32]

It is not just authoritarian governments that are strengthened by digital media but also other anti-democratic groups such as the Muslim Brotherhood in Egypt, which, Morozov says, "has an enviable digital presence and a sophisticated Internet strategy."[33] Therefore, "while the Internet may take the power away from an authoritarian (or any other) state or institution, that power … often flows to groups who, if anything, are nastier than the regime."[34]

Turning his attention to online activism–or "slacktivism,"[35] Morozov mocks "aspiring digital revolutionaries [who] can stay on their sofas forever–or until their iPads' batteries run out–and still be seen as heroes."[36] He asserts:

While Facebook-based mobilization will occasionally lead to genuine social and political change, this is mostly accidental, a statistical certainty rather than a genuine achievement. With millions of groups, at least one or two of them are poised to take off. But since it's impossible to predict which causes will work and which ones won't, Western policymakers and donors who seek to support or even prioritize Facebook-based activism are placing a wild bet.[37]

Morozov adds:

While it's tempting to forget this in an era of social networking, the fight for democracy and human rights is fought offline as well, by decades-old NGOs and even by some brave lonely warriors unaffiliated with any organizations. Before policymakers embrace digital activism as an effective way of pushing against authoritarian governments, they are well-advised to fully investigate its impact both on its practitioners and on the overall tempo of democratization.[38]

On the question of whether or not the West should fund projects that use the Internet to promote democracy, Morozov, perhaps somewhat surprisingly, is in favor of it. He says: "Western governments and NGOs shouldn't abandon their digital democracy push, they should just improve it."[39] But he urges not to forget the value of conventional networks: "In almost all countries run by authoritarian regimes there is an untapped mass of activists, dissidents, and anti-government intellectuals who have barely heard of Facebook. Reaching out to these offline and effective networks will yield more value than trying to badger bloggers to take up political activities."[40]

In the *Liberation Technology* collection Morozov shares space, with scholars with whom he has taken issue in other forums. In an article titled "Whither Internet Control?," Morozov opens up the issue by usefully differentiating between technological and socio-political control, pointing out that "most talk of 'liberation technologies' … turns out to be about the technological rather than the socio-political dimension."[41] But, he warns, "what if success in that area is met with larger and more sophisticated efforts at exerting socio-political control?" Morozov worries that the very legal tools that Western governments are developing to control cyber-crime, protect copyrights, and combat cyberwarfare, may be creating "an enabling environment for authoritarian governments that are keen on passing similar measures, mostly for the purpose of curbing political freedom."[42]

In his most recent book, *To Save Everything, Click Here: The Folly of Technological Solutionism* (2013), he warns against what he sees as the contemporary obsession with technological "fixes" to every social, health, or political problem, arguing that there are inherent dangers in the "solutionism" originating in Silicon Valley. Instead of relying on smart "apps" to reduce the ambiguity and friction in our lives, Morozov says, "we need to rethink our commitment to perfection … and ask whether choices made by [ourselves] rather than by an algorithm can actually be liberating."[43]

Christian Christensen

Christian Christensen is an American academic working and residing in Sweden, where he is professor of journalism/media and communication studies at Stockholm University. Formerly, he was with Uppsala University, where he was a professor in informatics and media.

Selected relevant publications:

Christian Christensen, "Uploading dissonance: YouTube and the US occupation of Iraq" in Philip Seib (ed.) *War and Conflict Communication*, New York: Routledge, 236-256, 2010.

Christian Christensen
(copyright my.fscons.org)

Christensen, "Discourses on Technology and Liberation: State Aid to Net Activists in an Era of "Twitter Revolutions," The *Communication Review*, 14:3, 233-253, 2011. (Also the guest editor of "Twitter Revolutions? Addressing Social Media and Dissent," a special issue of the journal the *Communication Review,* 2011.

Christensen, "Thoughts on revolution, state aid and liberation technologies," *Irish Studies in International Affairs*, 23(1): 37-45, 2012.

Christensen's views are similar to Morozov's in that he is skeptical about the liberating powers of digital technology. He has explicitly criticized Larry Diamond's and others' adherence to "liberation technology" as "excessively techno-utopian." He is especially interesting for his criticisms of aid donors in the global North,

especially the Swedish government, and how it has, in his words, been "quick to declare social media key tools in the battles over freedom of speech rights and democratic change in developing nations … despite the lack of evidence."[44]

Christensen has examined key policy documents and statements made by the Swedish government between 2008 and 2011 as a case study, especially those by Foreign Minister Carl Bildt and International Development Minister Gunilla Carlsson. Such statements include, for example, a speech to the League of Arab States in April 2011, when "Minister Carlsson made perhaps her most unequivocal statement yet on the perceived relations between technology and social change: 'Recent events in North Africa have shown how modern information and communication technologies–including social media–empower citizens to make their voices heard and demand accountability form their leaders.'"[45]

Christensen describes this official discourse "as a case of *selective contextualization* whereby the pro-social and democratic functions of technology are trumpeted as the rule, while abuses of technology are perversions."[46] Christensen says there has been "an aggressive promotion of Swedish aid policy in relation to net freedom and net activism"[47] and argues that this "raises a number of questions regarding the ways in which a powerful stakeholder [i.e. the Swedish government] appears to assume a causal relation among technology use, the expansion of access to information and democratic change."[48]

He writes, "An unquestioning push for the use of highly commodified social media such as Twitter, Facebook, and YouTube on the part of a state actor should cause researchers to raise fundamental questions regarding the increasingly blurred lines among policy, development aid, technological determinism and commodification."[49]

Along the same lines, Christensen concludes on his blog in 2011: "The actual 'effects' of social media use upon users and political structures are famously hard to prove … and so caution might be in order before too many Swedish kroner are earmarked for web activism in the name of democratic change."[50]

Views From the Field:
Empirical Research and Case-Studies

Ron Diebert

Ronald Deibert
(copyright access-controlled. net)

Ron Deibert is a Canadian academic and co-founder of the OpenNet Initiative, a project that monitors and reports on Internet filtering and surveillance practices by nations.[51] He has co-edited and authored several books and articles on issues of Internet control and cyberespionage. Deibert is currently professor of political science, and director of the Canada Centre for Global Security Studies and the Citizen Lab[52] at the Munk School of Global Affairs, University of Toronto. Deibert is a member of the steering committee of the World Movement for Democracy, whose secretariat is housed at the National Endowment for Democracy.

Selected publications:

Ronald J. Deibert, *Black Code: Inside the Battle for Cyberspace*, McClelland & Stewart, Random House, 2013.

Ronald Deibert, "International Mechanisms of Cyberspace Controls" Chapter 3 in Diamond, L. and Plattner, M. F., eds., *Liberation Technology: Social Media and the Struggle for Democracy*, Baltimore: JHU Press, 2012.

Other relevant publications:

John Palfrey, Jonathan Zittrain, Ron Deibert, and Rafal Rohozinski , *Access Denied: The practice and policy of Internet Filtering*, Cambridge: MIT Press, 2008.

Ron Deibert, John Palfrey, Rafal Rohozinski, and Jonathan Zittrain, *Access Controlled: The shaping of power, rights, and rule in cyberspace*, Cambridge: MIT Press, 2010.

Ronald Deibert and Rafal Rohozinski, "*Liberation vs. Control: the future of Cyberspace*," *Journal of Democracy*, Vol 21, Number 4, 43-57, 2010.

Ron Deibert, John Palfrey, Rafal Rohozinski, and Jonathan Zittrain, *Access Contested: Security, Identity, and Resistance in Asian Cyberspace*, Cambridge: MIT Press, 2011.

Ron Deibert's latest work, *Black Code: Inside the Battle for Cyberspace*, builds on more than 10 years of research conducted by his Toronto-based Citizen Lab. A comprehensive examination of case studies and personal accounts, Deibert's book explores significant cases and possibilities for the future of cyberspace. His findings leave a frightening scenario: increasing opportunities for abuses of power, or staggering growth rates in data and netizens that will leave states and individuals struggling to catch up.

The utopian ideal of cyberspace was "a system of interconnection based on trust," implicit in its architecture. However, Deibert writes, "the extraordinary applications that we now use to communicate may feel like tools of liberation, but the devil is in the details."[53] These details include everything from cyberspaces' infrastructure ("chokepoints," where data passes) to regulatory and legal frameworks–even the basic license agreements for applications and services, which, Deibert points out, "few users bother to read, let alone understand."[54]

Deibert's first jaw-dropping statistic comes from Dave Turek, IBM's vice president for exascale computing, who estimates that from the beginning of recorded time until 2003, humans created five "exabytes" of information (Deibert notes that one exabyte equals 1 billion gigabytes). In 2011, he continues, "we produced that same amount of information every two days." The amount of data will only continue to grow–and with it, all of the layers of information on each and every user on the Internet. He writes:

> We have created a hyper-media environment characterized by constant innovation from the edges, extensive social sharing of data, and mobile networking from multiple platforms and locations, and in doing so, we have unintentionally opened ourselves up to multiple opportunities for criminal exploitation.[55]

He cites Citizen Lab's uncovering and investigation of GhostNet, an espionage network affecting more than 100 countries, foreign ministries, and international organizations, companies, and media outlets. What distinguished GhostNet, Deibert writes, was the massive scale on which online cyberattacks were conducted, and most without the users' knowledge. "Remarkably, most of the GhostNet spying capabilities are freely available through an open-source network intrusion tool," Deibert writes, meaning that we have "entered the age of do-it-yourself cyber espionage."[56]

Compared to previous technological revolutions, in which there was "little to no interactivity," through cyberspace "it is us, the users, who create the information, do the connecting, and sustain and grow this

unique communications and technological ecosystem," Deibert writes.[57] The rapidity with which the Internet has spread is in parallel to growing challenges, however. Though cyberspace has connected two-thirds of the world in just two decades, "some of the fastest growth is happening among the world's weakest states, in zones of conflict where authoritarianism (or something close), mass youth unemployment, and organized crime prevail."[58]

The Open Net Initiative estimates that nearly 1 billion Internet users live in about 40 countries that regularly censor the Internet. As Deibert explains, "States have become adept at content-control regulations, mostly downloading responsibilities to the private sector to police the Internet on their behalf, but some governments have gone further, engaging in offensive operations on their own, including disabling opposition websites through DDOS [distributed denial of service] or other attacks, and/or using pro-government bloggers to flood (and sometimes disable) the information space."[59]

To add insult to injury for the so-called Global North, Deibert writes, "countries that censor the Internet have usually relied on products and services developed by Western manufacturers," citing examples from Tunisia, Burma, Saudi Arabia, China, Egypt, Iraq, and Kenya, among a dozen others.

This is perhaps most notable among Deibert's conclusions: Beyond the "do-it-yourself" possibilities for cybercrime, whereby any individual or group can attack other users, the length to which states themselves are becoming involved in the cyberspace arena, using censorship or cyberattacks to their advantage, is worrisome. "Policy-makers are being given tools they never before imagined: advanced deep packet inspection, content filtering, social network mining, cellphone tracking, and computer network exploitation and attack capabilities," Deibert writes.[60]

This "escalating arms race in cyberspace" is perhaps best exemplified by a case highlighted in *Black Code*: that of the Stuxnet virus. Initiated possibly either in the United States or Israel, or even both, Iranian nuclear facilities were targeted–an event covered by the press extensively beginning in 2010.[61]

Deibert regards circumvention technologies as liberation technologies: They can be used to promote political empowerment. But the picture is not black or white. As Deibert and former colleague Rafal Rohozinski say in a 2010 article, "Liberation vs. Control: the future of Cyberspace": "Communications technologies are neither empty vessels to be filled with products of human intent nor forces unto themselves, imbued with some kind of

irresistible agency. They are complicated and continuously evolving manifestations of social forces at a particular time and place."[62]

In other works, Deibert has asserted the importance of the kind of monitoring and research he and colleagues are engaged in and the "growing solidification and international presence of a formidable transnational social movement around Internet protection [which] has put the filtering and surveillance activities of states and corporations under an intense 'sous-veillance' grid, exposing unaccountable and nontransparent practices while pushing for access to information and freedom of speech worldwide."[63]

However, Deibert concludes: "Cyberspace's early architects foresaw a kind of digital agora that would fulfill long-standing democratic aspirations." But "nothing, it seems, is sacred in cyberspace any longer."[64]

Rebecca Mackinnon

Rebecca MacKinnon
(copyright rconversation.blogs.com)

Rebecca MacKinnon is an American academic, blogger, and a former journalist in China and other countries in East Asia. She is currently a senior research fellow at the New America Foundation in Washington, DC. On Twitter she describes herself as "an Internet freedom activist." She is co-founder of Global Voices Online, a global citizen media network.[65]

Selected publications:

Rebecca MacKinnon, *Consent of the Networked: The Worldwide Struggle for Internet Freedom*, Basic Books, 2012.

MacKinnon, "China's "Networked Authoritarianism,"" *Journal of Democracy,* April, Vol. 22 Issue: 2 Page Numbers: 32-46, 2011.

MacKinnon, "Flatter world and thicker walls? Blogs, censorship and civic discourse in China", *Public Choice* 134: 31-46, 2008.

The work that MacKinnon has done in China is of particular note. Responding to "common popular assumptions that the Internet … is ultimately a force for democratization,"[66] she argues that Internet penetration and the advent of social media are not sufficient in and of themselves to put China on the path to fundamental political change and freedoms. She says, "The Internet simply because it exists in China will not bring democracy to China. It is a tool, not a cause of political change."[67] However, she does concede that "the Internet generally and blogs more specifically can potentially be a *medium* and *tool* for political change in China."[68] For example, she points to "blogs that emerged in 2004 and 2005 as a powerful force in creating new forms of civic discourse online."[69]

She shows that the size of the Chinese blogosphere has grown dramatically and that Chinese blogs and SMS networks are starting to break news stories, to post politically sensitive opinions and photographs, to engage in some online debates, and even to organize labor strikes. Furthermore the Chinese state does not have total control and is having to engage with online criticism on issues such as the one-child policy, corruption and police behavior. MacKinnon finds Chinese bloggers surprisingly optimistic: "[M]any Chinese bloggers hold the view that the real story going on in the Chinese blogosphere is not one of oppressed victims who are waiting to be liberated. It is a story of tenacious optimists, slowly and patiently pushing back the boundaries, believing in the end, history is on their side."[70]

MacKinnon acknowledges that there are "millions of online conversations taking place daily on the Chinese Internet: conversations that manage to stay comfortably within the confines of censorship. With each passing day, these conversations do their quiet part to free the collective Chinese mind."[71]

But she points out that these conversations are suppressed and censored the moment they verge on calls for collective action or any attempts at offline organizing–in other words, when they threaten the Chinese Communist Party's hold on power. Therefore, she is skeptical about how, if, or when "more and more deliberation" creates enough momentum to bring about regime change.[72]

MacKinnon has documented the extent of the involvement of private Chinese companies in censorship. She says:

> Capitalist investors are actually helping the Chinese Communist Party strengthen and refine a gilded cage for China's Internet users … Fortunately for the government, there are plenty

of websites and services on the Chinese Internet to keep people occupied, without ever needing to access sites and services based overseas. Baidu helps them locate all the content on the Chinese-language Internet that their government permits. Social networking platforms RenRen and Kaixinwang substitute for Facebook. People can blog on platforms run by Chinese companies like Sohu and Sina and "tweet" on Weibo. QQ, run by the company Tencent, offers instance-messaging, gaming and all kinds of interactive services.[73]

Like Deibert, she is worried about any state that co-opts the private sector in order to amplify its own power. While China and Russia overtly require that Internet and telecommunications companies assist with political surveillance, she is also concerned about troubling trends in the West. Many Western democratic governments impose surveillance demands and mechanisms on companies that are insufficiently transparent or accountable to prevent abuses.

She writes:

> [In China] companies are expected to act as an extension of government surveillance that's highly politicised… How do we ensure that governments everywhere do not abuse their power via corporate networks, corporate owned and operated devices … how do we ensure that democracy doesn't get eroded in places where it exists so that we don't end up having a situation where basically … China gets better and we get worse and we all meet in the middle, somewhere around Russia?[74]

Archon Fung, Hollie Russon Gilman, Jennifer Shkabatur

Archon Fung
(copyright HKS Harvard)

Hollie Russon Gilman
(copyright Harvard University)
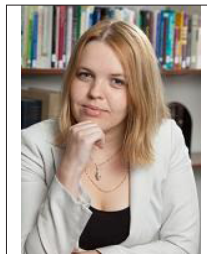
Jennifer Shkabatur
(copyright Harvard Law)

Archon Fung, Hollie Russon-Gilman, and Jennifer Shkabatur are all political scientists at Harvard University. Fung is a U.S. citizen and the Ford Foundation Professor of Democracy and Citizenship at Harvard's Kennedy School of Government.[75] Russon-Gilman[76] is American and Shkabatur[77] is of Israeli origin; they are both fellows at the Ash Center for Democratic

Governance and Innovations, Harvard Kennedy School of Government. They have published, together and separately, on the role of technology within the area of transparency and governance.[76]

Relevant selected publications:

Archon Fung, Hollie Russon Gilman, and Jennifer Shkabatur, "Six Models for the Internet + Politics," *International Studies Review,* 15.1: 30-47, 2013.

Fung, Hollie Russon Gilman, and Jennifer Shkabatur, *Impact case studies from middle income and developing countries*, London: Transparency and Accountability Initiative, Open Society Foundation, 2010.[79]

Fung and Jennifer Shkabatur, "Viral Engagement: Fast, Cheap, and Broad, but Good for Democracy?" contribution to D. Allen and J. Light, eds., *Youth, New Media, and Political participation* (under consideration at MIT Press), October 2012.

Fung, Russon Gilman, and Shkabatur have taken both empirical and theoretical approaches. They have investigated the impact of new technologies on accountability in developed and developing countries, and they have also theorized about how the Internet interfaces with politics.[80]

Their impact study (2010) examines seven cases of "technology interventions" in Brazil, Chile, Kenya, India, and Slovakia and "offers guidance (as well as some cautionary notes) to funders, advocates and entrepreneurs who are beginning or extending technology-for-transparency projects."[81] Their chosen "technology interventions" are mainly online platforms providing tools or forums for citizens to complain, monitor, or participate in government. For example, one was an online budget tracking tool intended to combat corruption in Kenya; another was a user-generated content website for complaints about public or private entities in Chile.[82] Even though the Harvard team looked only at seven projects, they say that "several interesting patterns of action emerge that may turn out to be more general."[83]

Their most striking finding is that it is "exceedingly rare" to find cases where a technology intervention, *almost by itself*, produces dramatic increases in accountability. In their study, they found only one among seven, namely the Chile Reclamos consumer complaints project, which "unleashed the latent wishes of individuals by allowing them to take significant actions that previously were impossible without the technology." This, they say, challenges commonly held assumptions in the ICT-for-governance field "that technological interventions

are almost sufficient unto themselves [and that they] set into motion social forces and reactions that result in increased accountability and responsiveness … We believe that this paradigm is rarely realised in practice … Many other necessary conditions must be in place for a technological intervention to truly be the last piece of a jigsaw puzzle."[84]

A more common pattern is that a technological intervention "aggregates information that increases accountability by inserting itself into the public discourse of political campaigns and mass media" and "relies upon interpretive intermediaries such as advocacy organisations and journalists."[85] Even more common, they say, are "specialised partnership between technologists who can provide specific information and communications tools on one side and entities such as NGOs or governments whose goals [are] advanced incrementally though these tools on the other."[86]

Thus, the Harvard team urges potential funders and implementers to "pay greater attention to the socio-political context in which a technological intervention is meant to increase accountability."[87] Specifically, they make five recommendations:

1. Focus on interventions with incremental ambitions, not revolutionary change.

2. Public sphere efforts should strive toward credibility and media partnership.

3. Encourage platforms that are designed by, or at least whose design is heavily influenced by, indigenous leadership.

4. Press technology entrepreneurs to make highly explicit and iterated diagnoses and theories of change.

5. Do not micromanage or second-guess.[88]

Fung and Shkabatur have also written an article about online campaigns that go viral, such as the Kony 2012 video, and on-line activism around the shooting of Trayvon Martin in Sanford, FL. They look at these and other viral campaigns as a form of political engagement and ask: Is there a common structure of mobilization and spread? And what are the potential contributions of this mode of engagement to democracy? Their conclusion is cautiously optimistic. They say: "With the caveats that instances of viral engagement are still relatively rare and

new, and there is not much empirical research to draw upon, online campaigns that go viral have the potential to enhance inclusion, political equality, public deliberation and civic engagement."[89]

Another of the Harvard team's papers is entitled "Six Models for the Internet + Politics" (2012). It is a more theoretical piece, although based on the field research described above. In this article Fung, Russon-Gilman, and Shkabatur set out to develop "a more clear understanding of the emerging interactions between ICT and governance." They compare the perspectives of scholars "who live on 'technology street' [who] tend to be optimists about the transformative possibilities of ICTs for democracy [and] those living on 'political science street' [who] tend to be quite skeptical because they think technology optimists are inattentive to the mainsprings of politics: interests and institutions."[90]

They name their six models for how digital technologies might affect democratic politics, as follows:

1. "The muscular public sphere," in which the Internet improves democracy by making the public sphere more accessible and less concentrated and exerts increasing force on political decision-making.

2. "Displacement of traditional organizations by new digitally self-organized groups" (the Clay Shirky view) in which citizens can accomplish many tasks more effectively, efficiently, and quickly compared with traditional organizations, including government.

3. "Digitally direct democracy," whereby digital communication can amplify direct engagement between citizens and their governments in policy making.

4. "Truth-based advocacy," whereby ICT platforms provide mechanisms for organized advocacy groups to bring salient, often surprising, facts to light in credible ways that tilt public opinion (one example would be Wikileaks).

5. "Constituent mobilization," in which ICTs "thicken" the connection between political organizations and their members, allowing political advocacy groups to communicate more information to more members at low cost (one example would be the mobilizing role of social media during the Arab Spring).

6. "Crowd-sourced social monitoring," whereby public agencies and/ or civic organizations deploy digital tools to enlist the eyes and ears of citizens to better spot public problems and bring them to the attention of the government and broader public (one example would be Ushahidi).

After presenting and critiquing each model (and admitting that their models are "by no means exclusive or fully comprehensive"), the Harvard team concludes:

> The result … is that the most heady and revolutionary expectations for the transformative role of digital technology–an egalitarian and empowered public sphere, the displacement of traditional organizations by Internet facilitated self-help though self-organization, and direct digital democracy–will be relatively uncommon (but not completely absent). We think that three more incremental contributions of ICTs to democratic governance–truth-based advocacy, constituent mobilization, and social monitoring–will become increasingly impactful because these uses of digital technologies amplify the efforts of organizations and individuals to achieve the aims that they already have. That is, the last three models are compatible with existing incentives and institutional constraints.[91]

Having offered the above prediction, the Harvard team leaves the reader with the following modest and intriguing wrap-up: "Like many others who have offered prognostications about the Internet and politics, we are probably wrong in our predictions … and we are probably wrong for reasons that we cannot even imagine from this particular point in time."[92]

Linda Herrera

Linda Herrera (copyright University of Illinois)

Linda Herrera holds a PhD from Columbia University and is an associate professor of education policy, organization, and leadership at the College of Education, University of Illinois. She is a social anthropologist with regional specialization in the Middle East and North Africa and works in the fields of comparative/international education, international development studies, and youth studies. She conducts critical ethnographies of schooling and social media spaces.

Selected publications:

Linda Herrera, "Youth and Citizenship in the Digital Age: A View from Egypt," *Harvard Educational Review*, Volume 82, Number 3, 333-352, 2012.

Herrera, "The Facebook Factor" in Adel Iskandar and Bassam Haddad, Eds. *Mediating the Arab Uprisings*, Tadween Publishing, 2013.

Herrera and Mark Lotfy, "E-Militias of the Muslim Brotherhood: How to Upload Ideology on Facebook." Article for *Jadaliyya*[93] (an independent e-zine produced by ASI (Arab Studies Institute). Online date: September 5, 2012.

Herrera, L., *Revolution in the Age of Social Media: People vs. Power in Egypt*, London & New York: Verso, forthcoming 2014.

On the power of social media (particularly in the Egyptian uprising) Linda Herrera is clear:

> The call for mass protests on 25 January 2011 that ignited the Egyptian revolution originated from a Facebook page. Many have since asked: Is this a "Facebook Revolution?" It is high time to put this question to rest and insist that political and social movements belong to people and not to communication tools and technologies. Facebook, like cell phones, the Internet, and Twitter, does not have agency, a moral universe, and is not predisposed to any particular ideological or political orientation.[94]

With her background as a social anthropologist Herrera is interested in the "sociology of generations" as defined by the Hungarian sociologist Karl Mannheim. In this sense, a specific generation is a cohort of people who share a common location in the historical dimension of the social process. Herrera identifies the youth participating in the Arab uprising as the "wired" generation, "for it captures how communication behavior in this high-tech era leads to a 'rewiring' of users' cognitive makeup, which changes their relationship to political and social systems and their notion of themselves as citizens."[95]

"Youth are coming of age in a digital era and learning and exercising citizenship in fundamentally different ways compared to previous generations," Herrera writes. "Around the globe, a monumental generational rupture is taking place that is being facilitated–not driven in some inevitable and teleological process–by new media and communication technologies."[96]

However, Herrera argues that although "wired" is the defining characteristic of the Arab youth, it was the political and economic realities of growing up in the Middle East and North Africa that created the conditions for an uprising, in particular demographic factors (65 percent of the population is under 30 years of age); economic marginalization (the Arab states have among the highest youth unemployment rates in the world); and political exclusion.

"Young educated Arabs born in the 1980s and 1990s make up an exceedingly disaffected group," she writes. "In interviews with sixteen- to thirty-year-olds in 2006, a recurrent theme I found was their deep frustration with the corruption of the Mubarak regime and the lack of democracy and accountability at all layers of society, including schools and universities."[97]

Against the background of political and economic factors Herrera chronicles the process of uptake and utilization of social media culminating in the "Day of Rage" on January 25, 2011. She divides this process into four phases.

In Phase 1, "Opening Frontiers," she describes how "For many young Egyptians with access to the Internet in the early years of the twenty-first century … cultural frontiers opened in unexpected ways as they took part in online gaming and chatting with strangers."[98]

In Phase 2: "Cultural Revolution," with "the arrival of torrent peer-to-peer file sharing in the early 2000s, the world's cultural and scientific repertoires became accessible online."[99] She cites the example of an interviewee

named Haisam: "After just two short years of using file-sharing programs, his cultural repertoire and English ability grew in ways that were unthinkable just a couple years earlier. 'Having this knowledge pumped into your head is like the Matrix,' he observed. 'Maybe someone who lived for seventy years wouldn't have the chance to know what we were able to learn in two years.'"[100]

In Phase 3, "Citizen Media," which Herrera locates in the years 2006–2008, "scores of 'ordinary' Egyptian youth were using mobile phones and computers … to circumvent official media and construct an alternative news universe … High school and university students had come to understand the power inherent in selecting, circulating, and commenting on a news story that contradicted the official version of an event or was absent altogether in mainstream news outlets."[101] As part of the process, "youth who may not have otherwise been especially political were acquiring political sensibilities."[102]

Phase 4, "Becoming a Wired Generation," was chiefly marked by the rapidly increasing use of Facebook (replacing the dominance of blogging). An early example of Facebook's effectiveness was the call for a general strike on April 6, 2008, that went viral, and "by the eve of the January 25 Revolution, the *We Are All Khaled Said* page had grown to 390,000 members and was receiving more than nine million hits a day."[103] It was this page that issued a call for a revolution against 'Torture, Corruption, Poverty and Unemployment' on January 25:

> This event became the trigger for the eighteen-day revolution that brought down the thirty-year dictatorship of Hosni Mubarak …The page did not cause the revolution, and youth of the Internet were not the only group active in the revolt, but it is hard to imagine the revolutionary movement unfolding in the way it did without the determination, tools, courage, training, networking, and changing political and cultural understandings of this wired generation. But, as it turned out, bringing down a dictator was the easy part; the hard work for deeper, structural, systemic change lay ahead.[104]

Subsequent to these four phases, Herrera presents a fifth, post-revolution phase, which she calls "Claiming the System," which is ongoing and which to some extent highlights the weakness of social media and the wired generation who use it. "Egypt's young cyber citizens have been crowded out of the power game and are now struggling to find ways to more deeply dismantle and penetrate the old power structure."[105]

She comments: "social media–based activism … can activate feelings of citizenship, start conversations,

build coalitions, get people to the streets, and even trigger revolutions. But can [it] facilitate the sustained deliberation, organization, and leadership needed to imagine alternatives and rebuild structures of power?"

In an article published in September 2012 with Mark Lotfy, Herrera reports on the Muslim Brotherhood's increasing presence on Facebook, which underlines how social media can be co-opted by the authorities and used as effectively as by citizen protesters: "The Muslim Brothers started to see Facebook as a precariously independent space. Just as the Brotherhood mobilized its ranks to occupy and appropriate Tahrir Square, it also intensified its efforts to appropriate and shape the tenor of debate on Facebook."[106]

Conclusion

From this short survey of some key thinkers, can we conclude that there is a causal link between digital media and good governance? The sum of the arguments and cases presented here do not point to a causal link, but they certainly show that digital technology is shaping social movements and political processes as never before. What is clear is that digital technology is a tool, and that, as such, it can be an important contributor to "bad" governance as well as "good." It can help topple dictators, but it can also help authoritarian regimes oppress their citizens; it can empower people, and it can anesthetize and manipulate them. It is also clear that something new and important is happening at the intersection of communications and governance and that these digitally-facilitated processes offer a rich seam for more in-depth research.

Of course, the question about a causal link between digital media and good governance is purposefully simple–even crude–in order to make a good title. The job of academics is to go beyond the simple journalistic headlines that have hailed "Twitter revolutions" on the one hand, or have dismissed "slacktivists" on the other. All the scholars profiled here clearly show that those who assume a simple relationship between digital technologies and political change are making serious mistakes. As ever, context is all.

Looking to the future, it is worth giving the last word to one more academic, Henry Farrell, a political scientist at George Washington University, who predicts that the Internet will become "both ubiquitous and invisible" within political science because it will be taken for granted. Yet it will still be worth studying.

> Over the next decade, the relationship between the Internet and politics will become increasingly important for the discipline. Paradoxically, it is likely that there will be ever fewer scholars specializing in the Internet and politics … because these technologies have become so integrated into regular political interactions … As the Internet becomes politically normalized, it will be ever less appropriate to study it in isolation but ever more important to think clearly, and carefully, about its relationship to politics.[107]

Endnotes

1. Online version of article, http://www.bendevane.com/FRDC2011/wp-content/uploads/2011/08/The-Political-Power-of-Social-Media-Clay-Sirky.pdf , Accessed 13 February 2013.

2. See Shirky's bio from his official website via Wayback, 'Mr. Shirky graduated from Yale College with a degree in art, and prior to falling in love with the internet, he worked as a theater director and designer in New York': http://web.archive.org/web/20110102195231/http://www.shirky.com/bio.html, Accessed 28 Feb 2013.

3. TED (Technology, Entertainment and Design) is a global set of conferences owned by the private non-profit Sapling Foundation, formed to disseminate "ideas worth spreading."

4. Clay Shirky, *Here comes Everybody: How Change Happens When People Come Together*, Penguin, London, 2009, page 20-21.

5. Ibid. p. 171.

6. Ibid. p. 187.

7. Ibid p. 303.

8. Evgeny Morozov, "How Dictators Watch Us on the Web," *Prospect magazine,* November 18, 2009.

9. Clay Shirky, 'The Net Advantage,' *Prospect Magazine*, December 11, 2009, online version accessed 26th March 2013 (http://www.prospectmagazine.co.uk/magazine/the-net-advantage/).

10. Shirky explains the notion of information cascades, with reference to political scientist Susanne Lohmann, as follows 'when a small group is willing to take public action against a regime, and the regime's reaction is muted, it provides information about the value of participation to the group of citizens who opted not to participate. Some members of this group will then join in the next round of protests.' Ibid.

11. 'Consulting with Libya in 2007,' http://www.shirky.com/weblog/2011/03/consulting-with-libya-in-2007/, March 1st 2011, Accessed 28 Feb 2013.

12. Clay Shirky, 'The Political Power of Social Media: Technology, the Public Sphere and Political Change 2011, *Foreign Affairs*, http://www.bendevane.com/FRDC2011/wp-content/uploads/2011/08/The-Political-Power-of-Social-Media-Clay-Sirky.pdf.

13. Ibid, p. 3.

14. Ibid p. 2.

15. Shirky, 'The Net Advantage,' *Prospect Magazine*, 2009.

16. Clay Shirky, "The Political Power of Social Media: Technology, the Public Sphere and Political Change," *Foreign Affairs*, 2011, http://www.bendevane.com/FRDC2011/wp-content/uploads/2011/08/The-Political-Power-of-Social-Media-Clay-Sirky.pdf, p.3.

17. Ibid. p. 3.

18. Ibid. p 5-6.

19. Larry Diamond and Marc F. Plattner, eds., Liberation Technology: Social Media and the Struggle for Democracy, The John Hopkins University Press, Baltimore, 2012, p. xiii.

20. Ibid. p. 5.

21. Ibid p. 13.

22. Ibid p. 12 & 14.

23. Ibid p. 5.

24. Ibid. p. 15.

25. From http://www.thespiritofdemocracy.com/, accessed 27 March 2013.

26. Larry Diamond, "The Coming Wave," *The Journal of Democracy*, Vol. 23, no. 1, 2012, p. 7-8.

27. From Morozov's homepage, http://www.evgenymorozov.com/, accessed 29 March 2013.

28. Evgeny Morozov, "The Net Delusion: The Dark Side of Internet Freedom / How not to Liberate the World," Penguin Books, London, 2011, p. 5.

29. Ibid.

30. Ibid p. 10.

31. Ibid p. 12.

32. Ibid p. 14.

33. Evgeny Morozov, "How Dictators Watch Us on the Web," *Prospect Magazine*, 18 November 2009.

34. Ibid.

35. This is a recently-coined, derogatory term to describe the quick and easy espousal of social causes by people who sign online petitions and join online campaign groups without taking any actual personal risks.

36. Morozov, "The Net Delusion: The Dark Side of Internet Freedom / How not to Liberate the World," p. 187.

37. Ibid. p. 180.

38. Ibid. p. 185.

39. Morozov, "How Dictators Watch Us on the Web."

40. Ibid.

41. Evgeny Morozov, "Whither Internet Control?," in Larry Diamond and Marc F. Plattner, eds, "Liberation Technology: Social Media and the Struggle for Democracy," The John Hopkins University Press, Baltimore, p.48.

42. Ibid p. 58.

43. From lecture by Evgeny Morozov at Bristol Literary Festival, 19 March 2013, recorded online http://www.watershed.co.uk/dshed/evegeny-morozov-save-everything-click-here, accessed 29 March 2013.

44. Christian Christensen, "Discourses on Technology and Liberation: State Aid to Net Activists in an Era of "Twitter Revolutions", *The Communication Review*, 14:3, 2011, p. 234.

45. Ibid p. 246.

46. Ibid p. 248.

47. Ibid p. 246.

48. Ibid p. 233.

49. Ibid p. 250.

50. Christian Christensen, personal blog entry, 11 February 2011, http://chrchristensen.wordpress.com/tag/social-media/page/2/, accessed 4 April 2013.

51. "The OpenNet Initiative is a collaborative partnership of three institutions: the Citizen Lab at the Munk School of Global Affairs, University of Toronto; the Berkman Center for Internet & Society at Harvard University; and the SecDev Group (Ottawa). Our aim is to investigate, expose and analyze Internet filtering and surveillance practices in a credible and non-partisan fashion." See www.opennet.net/about-oni, accessed 5 April 2013.

52. The Citizen Lab is "an interdisciplinary laboratory focusing on advanced research and development at the intersection of digital media, global security, and human rights." See http://citizenlab.org/, accessed 5 April 2013.

53. Ronald J. Deibert, "Black Code: Inside the Battle for Cyberspace," McClelland & Stewart, Random House, 2013, page 7.

54. Ibid.

55. Ibid p16.

56. Ibid p 25.

57. Ibid p12.

58. Ibid p15.

59. Ibid p18.

60. Ibid p 20.

61. Ibid.

62. Ronald Deibert and Rafal Rohozinski, 2010, "Liberation vs. Control: the future of Cyberspace" in Larry Diamond and Marc F. Plattner, eds. 2012, "Liberation Technology: Social Media and the Struggle for Democracy," The John Hopkins University Press, Baltimore, page19.

63. Ronald Deibert and Rafal Rohozinski, Chapter 6 "Good for Liberty, Bad for Security? Global Civil Society and the Securitization of the Internet", in "Access Denied: The Practice and Policy of Global Internet Filtering," ed. Deibert R., Palfrey, J., Rohozinski, R., Zittrain, J. MIT Press, 2008, page 146.

64. Ronald Deibert and Rafal Rohozinski, "The new cyber military-industrial complex" The *Globe and Mail*, 28 March 2011, http://www.theglobeandmail.com/commentary/the-new-cyber-military-industrial-complex/article573990/, accessed 8 April 2013.

65. See Rebecca Mackinnon's website: http://rconversation.blogs.com/about.html, accessed 9 April 2013.

66. Rebecca MacKinnon, "Flatter world and thicker walls? Blogs, censorship and civic discourse in China", Public Choice, 134: 31-46, 2008, p. 31.

67. Ibid p.31.

68. Ibid p. 32.

69. Ibid p.34.

70. Ibid p.42.

71. Ibid p.45.

72. From remarks by MacKinnon at National Endowment for Democracy panel discussion 'Liberation Technology: Instruments of Freedom of Tools of Repression?' September 11, 2012, accessed on 14th April 2013, via vimeo http://www.ned.org/events/liberation-technology-instruments-of-freedom-or-tools-of-repressionhttp://www.ned.org/events/liberation-technology-instruments-of-freedom-or-tools-of-repression.

73. Rebecca MacKinnon, "Consent of the Networked: The Worldwide Struggle for Internet Freedom," Basic Books 2012, p. 47-48 .

74. From remarks by MacKinnon at National Endowment for Democracy panel discussion 'Liberation Technology: Instruments of Freedom of Tools of Repression?' September 11, 2012, accessed on 14th April 2013, via vimeo http://www.ned.org/events/liberation-technology-instruments-of-freedom-or-tools-of-repressionhttp://www.ned.org/events/liberation-technology-instruments-of-freedom-or-tools-of-repression.

75. http://www.archonfung.net.

76. http://www.hks.harvard.edu/about/faculty-staff-directory/hollie-russon-gilman.

77. http://www.law.harvard.edu/academics/degrees/gradprogram/sjd/sjd-current-students/jennifer-shkabatur.html.

78. See their respective web-pages (above) for their other publications.

79. Accessed online at http://www.transparency-initiative.org/wp-content/uploads/2011/05/impact_case_studies_final1.pdf on 19 April 2013.

80. Additionally they have published extensively, both separately and together (see above websites).

81. Fung, Archon, Hollie Russon Gilman, and Jennifer Shkabatur, "Impact case studies from middle income and developing countries: Transparency, Technology, and Accountability," Transparency and Accountability Initiative, Open Society Foundation, London 2010, p. 8.

82. The full list of technology platforms examined is as follows: Cidade democratica, for citizen participation in local government in Sao Paulo, Brazil; Reclamos, for consumer complaints in Santiago, Chile; Budget Tracking Tool in Nairobi, Kenya; Ushahidi and Uchaguzi for election monitoring in Nairobi, Kenya; Mumbai Votes for tracking elected officials in India; Kiirti (Ushahidi) for complaint resolution in Bangalore, India; and Fair Play Alliance for citizen journalism and advocacy in Bratislava, Slovakia.

83. Fung, Archon, Hollie Russon Gilman, and Jennifer Shkabatur, "Impact case studies from middle income and developing countries: Transparency, Technology, and Accountability," p. 30.

84. Ibid. p.30.

85. Ibid.

86. Ibid.

87. Ibid. p. 5.

88. Ibid p. 3 and 32.

89. Fung and Jennifer Shkabatur, "Viral Engagement: Fast Cheap, and Broad, but Good for Democracy?," contribution to D. Allen and J. Light, eds., Youth, New Media, and Political participation (under consideration at MIT Press), October 2012. p. 18.

90. Fung, Archon, Hollie Russon Gilman, and Jennifer Shkabatur, "Six Models for the Internet + Politics," International Studies Review 15.1, March 2013, p. 2 of online paper http://archonfung.net/docs/articles/2012/SixModels6.pdf, accessed 20 April 2013.

91. Ibid p 17-18.

92. Ibid. p. 18.

93. http://www.jadaliyya.com/, accessed 1 May 2013.

94. Linda Herrera, 'The Facebook Factor' in Adel Iskandar and Bassam Haddad, Eds., "Mediating the Arab Uprisings,"Tadween Publishing, 2013.

95. Linda Herrera, "Youth and Citizenship in the Digital Age: A View from Egypt," *Harvard Educational Review*, 10 September, 2012, http://her.hepg.org/content/88267r117u710300/fulltext.pdf.

96. Ibid p.334.

97. Ibid p.338.

98. Ibid p.341.

99. Ibid p.342.

100. Ibid p.342.

101. Ibid p.343.

102. Ibid p.343.

103. Ibid p.348.

104. Ibid p.348.

105. Ibid p.348.

106. Linda Herrera and Mark Lotfy , "E-Militias of the Muslim Brotherhood: How to Upload Ideology on Facebook," *Jadaliyya*, 5 September 2012 .

107. Henry Farrell, "The Consequences of the Internet for Politics," *Annual Review of Political Science*, 2012, 15: 35-52, page 47.

Advisory Council
for the
Center for International Media Assistance

Center for International Media Assistance

National Endowment for Democracy

1025 F Street, N.W., Suite 800

Washington, DC 20004

Phone: (202) 378-9700

Fax: (202) 378-9407

Email: CIMA@ned.org

URL: http://cima.ned.org