# Internet Freedom: Historic Roots and the Road Forward

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# Internet Freedom: Historic Roots and the Road Forward

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*This article will address the question, "How do we protect and promote the positive social and economic benefits of network technologies that are global?" by mapping out the principles of Internet freedom—its history, contemporary context and conceptual framework—and providing an overview of how the work of the State Department can help achieve its goals. While in many regards, limits to Internet freedom have grown across the globe, the State Department has and will continue to promote freedom through diplomacy, monitoring and reporting, programming, and policy.*

> *"This issue isn't just about information freedom . . . It's about whether we live on a planet with one internet, one global community, and a common body of knowledge that benefits and unites us all, or a fragmented planet in which access to information and opportunity is dependent on where you live and the whims of censors."* – Secretary of State Hillary Clinton, January 21, 2010[1]

In February 2008, Oscar Morales, an unemployed Columbian engineer, orchestrated an online demonstration against terrorism that brought together more than 12 million people in 190 cities around the world to protest against the violent FARC rebels in his country.[2] These protests constituted the largest antiterrorist demonstrations in history and were primarily organized online with tools such as Facebook, where Morales ran the group page for "Un Million Voces Contra Las FARC." In the weeks that followed, the FARC saw more demobilizations and desertions than it had during a decade of military action.

Officials in the United States and Columbia initially did not know how the protests were organized, noting that the international campaign was apparently leaderless. This prompted a process of research and outreach into the online movement to understand its origins and why it had become so successful. Once diplomats determined that the campaign was not the product of a government-sponsored or otherwise well-funded and institutionalized effort, they got a first glimpse of what would become increasingly common over the coming years, a truly networked matter of foreign policy.

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This was a defining moment that illustrated the impact of connection technologies—Internet, social media applications, and mobile devices—within diplomatic and political processes. As Secretary of State Clinton articulated in a paradigm-shifting speech on Internet freedom in January 2010, "the spread of information networks is forming a new nervous system for our planet."[3] The Internet is a force multiplier—a network that magnifies the power and potential of all others. It was built on the fundamentals of the end-to-end user principle, meaning that the Internet was designed to allow largely frictionless communication between any two users without intermediary interference. It is this principle of open networking that allows instant communications and the movement of capital at the click of a mouse. The global set of interconnected networks that forms the Internet has become the greatest free market for ideas and commerce in history. Unlike any other media system through the centuries, it is designed to have no gatekeepers, no centralized control points. The physical network is constructed to be indifferent to the content it carries between producers and consumers of content. Unlike the marketplaces for publishing, broadcasting, or cable television, control over the content on the Internet is decentralized. Therein lies the promise and problems with this information network. According to Jonathan Zittrain, a professor at Harvard Law School, the very qualities that make the Internet an engine of creative ideas (there is no central authority that controls it) also leave it vulnerable to abuse (there is no central authority that protects it).[4]

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This article will not engage in techno-utopianism. Connection technologies are not an unmitigated blessing. Technologies with the potential to open up access to government and promote transparency can also be hijacked by autocratic regimes to identify and pursue dissenters and deny human rights. As Secretary Clinton has said,

> Just as steel can be used to build hospitals or machine guns, or nuclear power can either energize a city or destroy it, modern information networks and the technologies they support can be harnessed for good or for ill. The same networks that help organize movements for freedom also enable al-Qaeda to spew hatred and incite violence against the innocent. And technologies with the potential to open up access to government and promote transparency can also be hijacked by governments to crush dissent and deny human rights.[5]

This tension raises a central foreign policy question of twenty-first century diplomacy: how do we protect and promote the positive social and economic benefits of network technologies that are global? This article will address this question by mapping out the principles of Internet freedom—its history, contemporary context, and conceptual framework—and providing an overview of how the work of the State Department can help achieve its goals.

In recent years, it has become apparent that blogs, emails, social networking platforms, and text messages constitute a new public square to express and exchange ideas. They are also creating new targets for government-imposed censorship and direct threats to the end-to-end principle in the DNA of the Internet. The OpenNet Initiative estimates that at the end of 2009, 32 percent of all Internet users were accessing a filtered version of the Internet.[6] Even as the number of global internet users continued to grow dramatically to almost 1.75 billion by the end of 2009—a more than 15 percent increase over 2008—the year was one of the worst on record for Internet freedom.[7] While China and Iran receive the bulk of mainstream media attention for their Internet freedom policies, dozens of countries—ranging from Thailand to Turkey—have been part of a global Internet freedom regression. Increasingly, the Internet in many countries looks and works more like an *intranet*.

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The pernicious outcomes begin to domino when carving up the international IP platform of communications, built on common standards and expectations, into fiefdoms of national networking rules and control points. Internet censorship is not simply a political issue of constraints on free expression; it is fundamental disruption to the global open market for ideas and commerce. And yet, in all its forms—filtering, blocking, hacking, or legal restrictions that require self-censorship—the threat to Internet freedom is expanding. In recent years, technologies have emerged that are capable of surveillance on large flows of Internet traffic and selective intervention based on the source, ownership, content, or destination of the data. While these tools have been used for positive purposes—such as network security—they have led directly to national and international debates about the legitimacy of network control and content manipulation for political or economic ends.

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Against this backdrop of evolving threats and inherent tensions around the uses of network technologies, there is a clear principle of free expression. In its most basic form, Internet freedom is the freedom of all Internet users to connect to the Internet, to the websites of their choosing, and to each other. Internet freedom is not an easily classifiable niche issue because the Internet is not an end in itself; it is a means. It is a means to access new markets, new information, new learning, and new opportunities. The more filters, constraints, and limits that governments place on the Internet, the greater the potential social and economic disadvantage that is borne by citizens.

However, Internet freedom is much more than a narrow negative freedom—the freedom from the abridgement of speech by governments. The principle of Internet freedom also includes positive rights—the "freedom for" rather than the "freedom from." Conceptually, positive freedoms protect and promote the rights of the public as a whole, whereas negative freedoms protect and promote the rights of all individuals. For example, the positive freedom of expression is the right of the public to hear from all voices in the society; the negative freedom of expression is the right of each individual to speak without constraint. It is an important distinction that informs the policy objectives and tools for improving global Internet freedom.

Concretely applied here, the effort to promote Internet freedom does not end with overcoming restrictions on free expression imposed upon individuals. That only addresses the negative freedom. The principle of Internet freedom is also committed to promoting universal access to, and participation in, democratic free expression in twenty-first century communications systems. It is an old idea of public policy with a new technological context. Drawing from the tradition of Jeffersonian democracy, the responsibility of government is not only to ensure that the public sphere of democratic discourse is open and unrestricted, but also to promote universal access and engagement. For advocates of Internet freedom, this includes the challenges of extending networks to the disconnected, providing equipment and training to the underserved, and promoting robust and diverse information flows.

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It is not enough to protect Internet users from restriction in the marketplace of ideas and commerce; Internet freedom also implies empowering people to participate. Positive and negative freedoms on information networks are two sides of the same coin that unite a broad agenda of Internet freedom policies under a single principle. Though it may often be applied in specific situations, Internet freedom cannot be isolated as just a human rights issue or just an economic issue. Part of the complicated nature of Internet freedom is that it exists at the convergence of human rights, economic issues, and security issues, and cannot be properly evaluated in the context of a single issue area. This article will focus on addressing the core problems of government abridgement of Internet freedom, but it is important to keep in mind that the concept and its applications are much broader.

We are at a dramatic point in the history of connection technologies. In just one year, from 2009 to 2010, the number of mobile phones in the world increased by more than 10 percent, with almost 5 billion mobile handsets now in use. Seventy-five percent of these newly acquired mobile handsets are in the developing world. [8] In some places, such as South Africa, more consumers now access the web on a mobile device than on a computer.

Developing nations throughout Africa, Latin America, and Asia are building network infrastructure, setting policy about how to treat these new communications platforms, and grappling with the Internet freedom issues of access and control over information flows. These choices will determine what the Internet will look like to citizens in these countries. Secretary of State Clinton has described the Internet as an "on ramp to modernity." [9] The choice now for states around the world is whether they will enjoy being a part of that economic and social modernity, or whether they will live with the consequences of a more closed society.

Though Internet freedom is seemingly a new and entirely twenty-first century foreign policy issue, it has its roots in the Universal Declaration of Human Rights and is consistent with centuries-old American constitutional values, including the freedom of speech, freedom of assembly, and freedom of the press. Thomas Jefferson, the United States' very first secretary of state, wrote, "The will of the people . . . is the only legitimate foundation of any government, and to protect its free expression should be our first object."[10] He was among the most outspoken of the leaders of the early American republic about the imperative of a free and open press system (and universal access to it) for democratic societies to flourish.[11] Similarly, in her policy address on Internet freedom, Secretary Clinton addressed both freedom of expression and freedom to connect. She began with the uniquely American framework of Roosevelt's "Four Freedoms" to contextualize the struggle for Internet freedom. In addition to the freedoms of speech and religion and the freedoms from want and fear, Secretary Clinton modernized this framework by including a fifth freedom, the freedom to connect, tying the principles of Internet freedom back into larger themes of history. For Jefferson, the key components of democratic communication were a free press and a ubiquitous postal service. Today, they are digital freedom of expression and universal connectivity to information networks.

> Just as the American imperative to defend Internet freedom has its roots in the very founding of our republic, the tension between societies that are open and those that are closed to information, opinions, and ideas spans millennia.

Though the Internet and the abundant innovations it has spawned are only a few decades old, the challenges we face are not. Just as the American imperative to defend Internet freedom has its roots in the very founding of our republic, the tension between societies that are open and those that are closed to information, opinions, and ideas spans millennia. For the purposes of this article, an "open" society refers to a society in which several key characteristics are in place: democratic institutions that allow for all citizens to freely participate in the political process, an economic system marked by the ability of individuals of all social and economic upbringings to compete and succeed, and finally, cultural and religious pluralism. "Closed" societies, by contrast, are marked by authoritarian governments, economic prosperity that is confined to elites, and limited, state-enforced cultural and religious norms. Few societies can be easily and decisively categorized as fully "open" or "closed"; rather, all nation states exist along a continuum.

Though technology facilitates new ways of both supporting open societies and clamping down on closed ones, the dialectic between these types of societies is ongoing. From Alexandria in the third century B.C., a tolerant society that created a fertile intellectual home for scholars like Euclid and Archimedes, to the freedom and openness of today's Silicon Valley—the pattern repeats itself. Parallel to these quintessentially open societies exists their closed counterparts.

For instance, while Europe was languishing in the Dark Ages, the Islamic Golden Age was taking place, a period of tremendous intellectual production. During this period, amongst many advances, Arabic scholars invented algebra and the number zero, discovered planetary motion, and innovated and improved paper production methods which led to wider dissemination of knowledge. Baghdad, the capital of the Islamic empire at the time, was home to the first lending library in the world and the "House of Wisdom" where Muslim and non-Muslim scholars alike collaborated to translate the world's greatest learned texts into Arabic. According to Bernard Lewis, the Caliphate of Abbasid represented the first "truly universal civilization" composed of "peoples as diverse as the Chinese, the Indians, the people of the Middle East and North Africa, black Africans, and white Europeans."[12]

The force that had the greatest impact ending Europe's Dark Ages was the creation of the printing press in 1455. Until that point, the Catholic Church was able to maintain its religious, intellectual, and political hegemony, in part because of its tight control of the written word. At the time, literacy levels were low and media production was a laborious and expensive craft. While monks produced beautiful illuminated manuscripts that are now considered high art, the limited production of the written word ensured that it circulated only narrowly amongst elites and rarely in the vernacular languages of local populations throughout the continent. The birth of the printing press led to an explosion in the production and relatively low-cost dissemination of new ideas that helped give birth to the Protestant Reformation and the Age of Enlightenment.

However, when a disruptive technology, like the printing press, is introduced and threatens to displace a powerful and open society, the powerful do not relinquish control over information easily. This is proving true today with Internet freedom just as it did centuries ago with the printing press. For instance, in 1559 under Queen Elizabeth, a new British regulation stated that no book in any language could be printed without a license, and fewer than fifteen people were allowed to issue a license in the entire nation; including, the Queen, the Archbishop of Canterbury, and the Chancellor of Oxford.[13]

In the American colonies, it took the end of the censorious Licensing Act to spark the birth of new print material—the very publications and pamphlets that would set the intellectual stage for the American Revolution. Notwithstanding his own later actions as a proponent of government censorship, John Adams noted that the success of the Revolution was in part due to free and open access to information. He advised Americans curious about the origin of the Revolution to examine "records, records, pamphlets, newspaper, and even handbills, which in any way contributed to change the temper and views of the people, and compose them into an independent nation."[14] Some of the first debates of the new American government concerned whether the distribution of newspapers through the public postal service was to be free of charge, or merely heavily subsidized. The importance of open and universal information networks and open citizen engagement was crystal clear.

## Contemporary Analysis

Just as there is a continuum of open and closed societies, so too does that continuum exist within the specific sphere of Internet freedom. Cuba is so repressive that Freedom House issued it its worst score, ninety out of one-hundred, on its repressiveness scale. Internet access is available for approximately 10 percent of its population, and there is restricted access to any Internet application besides email, enforced with ubiquitous user surveillance.[15] But it is important to note that governments in nations with lesser-known track records are also starting to undermine Internet freedom.[16]

In many instances, the experiences of citizens in closed societies highlight both the promise and the peril of decentralized network technologies. The most prominent example of how connection technologies foster both organized political dissent and a reaction of government control and censorship can be seen in events in June 2009 and February 2010 in Iran. After the Iranian elections in June, an entire movement was organized, documented, and shared using Twitter and other online platforms—inspired in part by the image of Neda Agha-Sultan's death. The iconic images of Neda's death were likely captured by cell phone and emailed to a member of the Iranian diaspora, where they were sent to mainstream media outlets. It went viral shortly thereafter over alternative and mainstream media platforms and became a motivating symbol of resistance, inside and outside of Iran. The Iranians clearly learned from this episode. In February 2010, on the anniversary of the revolution, they closed down their communications networks to suppress the means of organizing protest, creating what State Department spokesman P.J. Crowley referred to as an "information blockade."[17]

When President Obama was asked about Internet freedom last November during a town hall meeting in Shanghai he stated, "I'm a big believer in technology, and I'm a big believer in openness when it comes to the flow of information," adding that "the more freely information flows, the stronger the society."[18] Ironically, not many Chinese people saw or heard these remarks because they were censored by the Chinese government.

Governments are using an increasing number of tactics with greater sophistication in their efforts to stifle Internet freedom.

Governments are using an increasing number of tactics with greater sophistication in their efforts to stifle Internet freedom. What follows is a brief overview of the diverse modalities of online repression governments have utilized.

*Blocking Access to Content*

According to the Open Net Initiative, more than forty countries now practice Internet filtering to some extent.[19] Governments now understand that Web 2.0 applications like YouTube and Facebook enable the quick spread of information. Given the viral nature of this information, governments will, at times, block access to entire sites instead of selectively removing content after it has been posted. For instance, Pakistani authorities ordered ISPs to block access to the entire Facebook site as a response to an "Everybody Draw Mohammed Day" that was planned for May 20.[20]

Another approach is using Dedicated Denial of Service Attacks (DDoS), which Freedom House describes as committing "technical violence," where hackers can paralyze or completely shut down a website by, for instance, overwhelming it with millions of false external communications requests and rendering the site unable to respond to legitimate traffic. This has had clear political ramifications as seen in a 2008 DDoS attack on *Irrawaddy*, an online Burmese newspaper critical of the Burmese government.[21]

*Self-Censorship*

Most Internet censorship is not conducted by governments, but rather is a function of self-censorship. This is done by individuals and businesses in response to the threat of prosecution or harassment for violating laws regulating online speech. The most obvious "chilling effect" on individuals comes from the public arrest and harassment of political bloggers. Egypt, for example, does little by way of formal online filtering or content removal but has been at the forefront of using legal methods to make examples of prominent bloggers and online activists. Some states rely on explicit reminders to citizens to self-regulate their internet behavior. For instance, Jingjing and Chacha have become a familiar sight for many Chinese internet users.

They are seemingly adorable cartoon police mascots of the Internet Surveillance Division of the Public Security Bureau in Shenzhen which are used to continually remind internet users that they are being watched and that offline police presence extends into cyberspace.[22]

Even broader self-censorship is practiced by Internet content companies and service providers that police their own offerings rather than run afoul of secondary liability. Clear examples include search engines, social networking sites, and online video distributors operating in nations with restrictive online speech regulations. Many nations have laws on the books that have effectively restricted Internet freedom even though the laws may be about insulting Islam or a head of state.

*Participation by Private Firms*

According to Freedom House's *Freedom on the Net* report, every country of the fifteen they assessed engaged in some level of "outsourcing" of Internet censorship to a range of private firms, including ISPs, mobile phone operators, or cybercafés. As Freedom House notes, even among good and mid-range performers on their Internet freedom index there were some forms of legislation requiring retention of user data, content filtering, or interception powers for law enforcement.[23] These are often justifiable and necessary for security purposes. At other times, they are put in place for governments to be able to control and monitor *all* activity on the Internet, regardless of whether or not there are law enforcement or security considerations.

Summing up the directional trends of Internet freedom in recent years, Princeton scholar Rebecca MacKinnon said in recent Congressional testimony, "Over the past five years, many authoritarian regimes have shifted from reactive to proactive in terms of how they deal with the internet. Most modern authoritarian governments now accept the Internet as an irreversible reality. Rather than try to restrict citizens' access, the most proactive regimes are working aggressively to use Internet and mobile technologies to their own advantage."[24]

## The Way Forward

The only consensus on the topic of Internet freedom is that there is no silver bullet, no single solution to ensuring it. Addressing the challenges posed by governments that curtail access to information online will have to be addressed through a range of means: technical, educational, and diplomatic. Secretary of State Clinton is leading an important effort to slow and stop the erosion of Internet freedom. She has established programs and issued a call for "shared responsibility" with the private sector, which is re-framing the policy dialogue all over the globe in the area of Internet freedom. She is providing an enormous level of leadership to help ensure that the twenty-first century is marked by the primacy of strong, open societies rather than by closed, oppressive societies. Four key elements in the approach to protecting and promoting Internet freedom are: diplomacy, monitoring and reporting, programming, and policy.

*Diplomacy*

The State Department's historic role has been the execution of formal interactions between sovereign states. Perhaps the most important thing that can be done by the U.S. government is the elevation of Internet freedom within the engagements it has with its global interlocutors. Using traditional diplomatic channels including bilateral and multilateral initiatives, the State Department has worked with nations and firms to deal with instances of breaches of Internet freedom. For instance, when a popular social networking site was blocked in Vietnam, the State Department raised the issue with government officials in Washington and Hanoi. Moreover, the Department is already increasing the training it offers Foreign Service Officers to acquaint them with Internet freedom issues. The United States is helping to lead the community of nations that share a commitment to Internet freedom, so that the issue is engaged proactively and reactively by a global architecture of states, rather than just by the United States.

*Monitoring and Reporting*

The State Department, in concert with academic, private-sector, and governmental partners around the world, is closely monitoring threats to Internet freedom worldwide and using that data to inform the public and make better policy decisions. The use of connection technologies in the marketplace changes very quickly: witness the more than 10 percent increase in mobile handsets from 2009 to 2010. Given that Internet freedom breaches tend to happen quickly as a response to a specific perceived threat to a government, the State Department has supplemented its formal, annual reporting with real-time monitoring.

*Spreading Technology*

Efforts to advance Internet freedom include supporting the development of new technological tools to allow wider populations to avoid censorship and technological barriers. It also includes providing grassroots training to help journalists, civil society leaders, and ordinary citizens around the world in the use of new Internet and digital technologies to disseminate messages, empower individual voices and encourage transparency—and to do this all safely.

*Policy*

Since the U.S. secretary of state's Internet freedom address on January 21, we have seen an important shift in the policy sphere in support of Internet freedom. For example, the Treasury Department's Office of Foreign Assets Control (OFAC) issued waivers for free, mass market downloadable software (such as Internet email and instant messenger services) for Sudan, Iran and Cuba. The enforcement and exemptions of OFAC sanctions are an important part of promoting access to connection technologies that enable open platform communication. Flexible policy making such as "smart sanctions" in this area enhances access and engagement in online civil society and the economic opportunities afforded by new technologies. Smart sanctions can support citizens, businesses, and civil society organizations living and working within repressive regimes to gain access to communication technology tools without jeopardizing American security interests in export controls.

In addition, the U.S. secretary of state has established an Internet freedom taskforce to develop a framework for policy planning and implementation of the goals of the Internet freedom agenda. The taskforce will set strategic direction for State Department efforts to pursue free expression and freedom to connect in open markets on the Internet. This group will help shape the foreign policy we bring to the table at international institutions engaged in matters of Internet governance, trade, development, and human rights. Building international consensus around the principles of Internet freedom is a critical part of addressing the actions of nations that choose to suppress free expression.

Diplomats will also seek out engagement and responsibility from the private sector and draw attention to the Global Network Initiative (GNI), which seeks to establish transparency and accountability for business practices abroad. Current members include Google, Microsoft, and Yahoo as well as academic institutions like Harvard's Berkman Center for Internet and Society. The GNI is an important arena to organize commercial and NGO actors around common principles and practices to promote Internet freedom.

Twenty-first century statecraft requires ongoing proactive engagement with U.S. and multinational media companies, setting clear norms for corporate responsibility. Firms must understand and mitigate human rights risks associated with entering and operating within certain markets. Working with private firms is critical given that "60% of all Internet content comes from, or terminates within, just 100 to 150 companies."[25]

## Conclusion

In her remarks on Internet freedom in January of 2010, Secretary of State Clinton said, "On their own, new technologies do not take sides in the struggle for freedom and progress, but the United States does. We stand for a single Internet where all of humanity has equal access to knowledge and ideas."[26] But the power of the Internet to bring social and economic opportunity to the world is fragile. Promoting the tremendous possibilities of this engine of creativity requires protecting its vulnerabilities from exploitation. To achieve the goal of global engagement in the free flow of information, we must work to protect the Internet from censorship and malicious attacks. To promote the economic benefits of

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universal access and adoption, we must work to unite the international community around a common goal of protecting and expanding this common resource. This work will be done between peoples, between governments, across the public and private sectors, and in civil society. It is a complicated project that spans difficult issues in economics, human rights, and social opportunity. But it is rooted in simple principles that have stood the test of time. Open societies offering equal access to an unfettered marketplace of ideas and commerce flourish and deliver social and economic benefits to their citizens. The work of Internet freedom seeks to bring these goals into twenty-first century statecraft.

## *Notes*

[1] Hillary Clinton, "Remarks on Internet Freedom" (speech, The Newseum, Washington D.C., January 21, 2010).

[2] "Columbians in huge FARC protests," BBC News, February 4, 2008, http://news.bbc.co.uk/2/hi/americas/7225824.stm

[3] Ibid.

[4] Jonathan Zittrain, *The Future of the Internet and How to Stop It* (New Haven: Yale University Press, 2008).

[5] Clinton, "Remarks on Internet Freedom."

[6] Jillian C. York, "ONI Releases 2009 Year in Review: Filtering, Surveillance, Information Warfare," Open Net Initiative, http://opennet.net/blog/2010/02/oni-releases-2009-year-review-filtering-surveillance-information-warfare.

[7] "Key Global Telecom Indicators for the World Telecommunication Service Sector," International Telecommunication Union, http://www.itu.int/ITU-D/ict/statistics/at_glance/KeyTelecom99.html.

[8] "Measuring the Information Society 2010," International Telecommunication Union, http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS_2010_without%20annex%204-e.pdf.

[9] Clinton, "Remarks on Internet Freedom."

[10] Thomas Jefferson, *The Jeffersonian Encyclopedia: A Comprehensive Collection of the Views of Thomas Jefferson* (New York and London: Funk & Wagnalls, 1900), 660.

[11] See for example, "The basis of our governments being the opinion of the people, the very first object should be to keep that right; and were it left to me to decide whether we should have a government without newspapers, or newspapers without a government, I should not hesitate a moment to prefer the latter. But I should mean that every man should receive those papers and be capable of reading them." Thomas Jefferson, "Thomas Jefferson to Edward Carrington," The Founders Constitution, http://press-pubs.uchicago.edu/founders/documents/amendI_speechs8.html

[12] Bernard Lewis, *Race and Slavery in the Middle East: An Historical Enquiry* (New York: Oxford University Press, 1990), 18.

[13] Ronan Deazley "Commentary on the Elizabethan Injunctions 1559," in *Primary Sources on Copyright (1450-1900)*, eds. L. Bently & M. Kretschmer, www.copyrighthistory.org

[14] John McClymer, Lucia Knoles, and Arnold Pulda, "Would There Have Been an American Revolution Without Newspapers or Mail?" E Pluribus Unum, http://www1.assumption.edu/ahc/1770s/pcomconvers.html.

[15] "Freedom on the Net: A Global Assessment of Internet and Digital Media," Freedom House, http://www.freedomhouse.org/template.cfm?page=383&report=79.

[16] "Web 2.0 Versus Control 2.0," Reporters Without Borders, http://en.rsf.org/web-2-0-versus-control-2-0-18-03-2010,36697.html.

[17] "Iran is 'blocking communications,'" BBC News, February 11, 2010, http://news.bbc.co.uk/2/hi/8511800.stm.

[18] Barack Obama, "Remarks by President Barack Obama at Town Hall Meeting with Future Chinese Leaders," (speech, Museum of Science and Technology, Shanghai, China, November 16, 2009).

[19] Ronald Deibert, John Palfrey, Rafal Rohozinski, Jonathan Zittrain, eds., *Access Denied: The Practice and Policy of Global Internet Filtering*, (Cambridge: MIT Press, 2008), 5.

[20] Mark Hefflinger, "Pakistan Blocks Facebook Over Page With Images of Muhammad". Digital Media Wire, May 19, 2010, http://www.dmwmedia.com/news/2010/05/19/pakistan-blocks-facebook-over-page-images-muhammad.

[21] Ronald Deibert, *Access Controlled: The Shaping of Power, Rights and Rule in Cyberspace* (Cambridge: MIT Press, 2010), 80.

[22] Bob Dietz, "Olympics: Jing Jing, Cha Cha, and Other Online Cops," Committee to Protect Journalists, http://cpj.org/blog/2008/08/olympics-jing-jing-cha-cha-and-other-online-cops.php.

[23] "Freedom on the Net: A Global Assessment of Internet and Digital Media," Freedom House, http://www.freedomhouse.org/template.cfm?page=383&report=79.

[24] Rebecca MacKinnon (Visiting Fellow, Center for Information Technology Policy, Princeton University), "Testimony on the Google Predicament: Transforming U.S. Cyberspace Policy to Advance Democracy, Security, and Trade, before the House Committee on Foreign Relations," March 10, 2010**,** Text from: http://www.internationalrelations.house.gov/hearing_notice.asp?id=1160 (accessed May 20, 2010).

[25] Wade Roush, "Arbor Networks Reports on the Rise of the Internet 'Hyper Giants,'" Xconomy, http://www.xconomy.com/boston/2009/10/20/arbor-networks-reports-on-the-rise-of-the-internet-hyper-giants/.

[26] Clinton, "Remarks on Internet Freedom."