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Point and Click to Protect Public Health: Taking Charge of Information Dissemination Over the Internet During a Public Health Emergency

Laurie N. Stempler

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INTRODUCTION

Modern information technology enables our nation to respond to public health emergencies in unprecedented ways. Information dissemination is no longer limited to newspapers, books, and word of mouth. Instead, the Internet has become an overwhelmingly popular venue for the rapid spread of information and sharing of ideas. But while the Internet has undoubtedly benefited society, it may hinder our nation's ability to respond effectively to public health emergencies. Individual users can obtain and share information about health and news alerts quickly, but such online sources are not

1 The United States suffered from several public health emergencies in the first half of the twentieth century, such as tuberculosis, yellow fever, and smallpox. KENNETH R. WING ET AL., PUBLIC HEALTH LAW 10, 16 (2007); Wendy K. Mariner et al., Jacobson v. Massachusetts: It’s Not Your Great-Great-Grandfather’s Public Health Law, 95 AM. J. PUB. HEALTH 581, 582 (2005). At the time, vaccines were largely unavailable and hospitals were not the modern institutions we know today. Id. at 582. As recently as the 1960s, public attention and response to health risks were often delayed. For example, outcry against the use of DDT reached its peak only after publication of a book: Rachel Carson’s Silent Spring. WING ET AL., supra, at 17. In the new millennium, the Internet provides a speedy way to share information. MARK SABLEMAN, MORE SPEECH, NOT LESS: COMMUNICATIONS LAW IN THE INFORMATION AGE 236 (1997) (“Computer linkups such as electronic mail and the Internet allow parties to communicate easily and practically instantly with persons who are far away.”).

2 JOHN B. H Orrigan, ONLINE NEWS 1, 10 (2006), http://www.pewinternet.org/pdfs/PIP_News.and.Broadband.pdf (noting that thirty-five percent of adults who use the Internet turn to websites, including blogs, for news each day).

3 Public health emergencies include “emergencies created by contagious disease, whether through an act of bioterror or a widespread, naturally-occurring epidemic.” WING ET AL., supra note 1, at 234. For an example of how modern communication technology interferes with responses to public health emergencies, see infra Part II.C.

4 See SUSANNAH FOX, ONLINE HEALTH SEARCH 2006 1, 9, http://www.pewinternet.org/pdfs/PIP_Online_Health_2006.pdf (finding that eighty percent of Americans used the Internet to find information about health issues and fifty-one
always reliable.\textsuperscript{5} Information disseminated over the Internet is not always accurate and sometimes creates panic or confusion among lay citizens during public health emergencies.\textsuperscript{6} Chaos and confusion among members of the general public can impede the success of local and national response plans.

Commentators as well as state and federal agencies have recognized that our nation’s public health laws are outdated.\textsuperscript{7} However, recent efforts to modernize state and federal emergency response plans have neglected to account for the impact that the Internet may have during a public health emergency.\textsuperscript{8} Specifically, communication over the Internet may cause the public to receive conflicting information and lead to panic. This Note will argue that current public health emergency response plans should be amended both to address the Internet’s role during a public health emergency and to minimize the impact of individual Internet users’ influence on the public’s perception of a public health emergency. Part I will evaluate current state and federal emergency response plans that include provisions for communicating health threats to the general public. Part II will examine the nature and reliability of information exchanged in the Internet community. Part II will also explore instances when the Internet further weakened already poor responses to public health emergencies. Finally, Part III will suggest steps authorities should take through

percent of users wanted to share the information they obtained); H\textsuperscript{ORRIGAN}, supra note 2, at 8 (observing that less experienced users rely on information obtained by more advanced users).

\textsuperscript{5} See infra Part II.B.

\textsuperscript{6} See infra Part II.C for a discussion of the Internet’s role immediately after the 2001 anthrax attacks.

\textsuperscript{7} Matthew E. Brown, Reconsidering the Model State Emergency Health Powers Act, 14 ANNALS HEALTH L. 95, 119 (2005) (“[T]he bulk of states’ public health law is forty to one hundred years old and does not reflect modern legal norms or contemporary mechanisms of disease prevision and control.”). One reason to dedicate time to drafting a proper emergency response plan is that Congress, especially after disasters such as hurricane Katrina in 2004, desires specific plans for how the administration will respond to emergencies. Hillary R. Ahle, Anticipating Pandemic Asian Influenza: Why the Federal and State Preparedness Plans Are for the Birds, 10 DEPAUL J. HEALTH CARE L. 213, 217 (2007); Gardiner Harris, Fear of Flu Outbreak rattles Washington, N.Y. TIMES, Oct. 5, 2005, at A23 (quoting Senator Tom Harkin’s comment that Congress wanted “specific goals and procedures . . . to take to prepare for this”). Another motivation behind revising public health emergency response plans is to better prepare the nation for a bioterrorist attack, which could have a serious impact on both public health and the economy. See Lawrence O. Gostin, When Terrorism Threatens Health: How Far Are Limitations on Personal and Economic Liberties Justified?, 55 FLA. L. REV. 1105, 1127-28 (2003) (contending that bioterrorism poses a very real and significant threat to our nation).

\textsuperscript{8} See infra Part I.
legislation to improve the dissemination of accurate and trustworthy information over the Internet.

I. CURRENT EMERGENCY RESPONSE PLANS

Congress and state legislatures have attempted to improve plans that govern responses to public health emergencies in recent years. After the confusion that ensued from the 2001 anthrax scare, the Centers for Disease Control (“CDC”) quickly completed the Model State Emergency Health Powers Act (“MSEHPA”). On the federal level, one of the emergency response plans proposed shortly after the anthrax incident was the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. While updated legislation in this area is certainly needed, these plans fail to consider that advanced information technology requires society to adapt emergency response protocols to a new communication era.

A. State Level: Model State Emergency Health Powers Act

In October 2001, the CDC commissioned the Georgetown Center for Law and the Public’s Health to construct a model act that would guide local health authorities in formulating a plan for responding to public health emergencies. One impetus for revamping state response plans was a

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[a] “public health emergency” is an occurrence or imminent threat of an illness or health condition that: (1) is believed to be caused by any of the following: (i) bioterrorism; (ii) the appearance of a novel or previously controlled or eradicated infectious agent or biological toxin; (iii) [a natural disaster]; (iv) [a chemical attack or accidental release; or] (v) [a nuclear attack or accident]; and (2) poses a high probability of any of the following harms: (i) a large number of deaths in the affected population; (ii) a large number of serious or long-term disabilities in the affected population; or (iii) widespread exposure to an infectious or toxic agent that poses a significant risk of substantial future harm to a large number of people in the affected population.
concern that public health emergency regulations infringed on individuals’ freedoms, a concern that has blossomed over the past century. Indeed, states have become more conscientious in providing due process when engaging in activities of public health management, such as surveillance, vaccination, and quarantine.

The other motivation behind the MSEHPA was the U.S. response to the anthrax attacks. After the 2001 anthrax scare demonstrated weaknesses in the country’s ability to respond to a bioterrorist attack, the CDC became anxious to have the model act completed. The Georgetown Center completed its draft in December 2001. As of July 15, 2006, forty-four states and the District of Columbia had introduced a version of the MSEHPA.

The MSEHPA’s drafters focused on granting authority to local public health agencies that would help local authorities prevent, detect, manage, and control public health


12 HODGE & GOSTIN, supra note 11, at 10 (“Existing public health laws may pre-date vast changes in constitutional and statutory law that have altered social and legal conceptions of individual rights. Contemporary standards of equal protection and due process in constitutional law and of disability discrimination, privacy, and civil rights in statutory law must be reflected in public health law.”); see also Mariner et al., supra note 1, at 581 (“Preserving the public’s health in the 21st century requires preserving respect for personal liberty.”); Leah Z. Ziskin & Drew A. Harris, State Health Policy for Terrorism Preparedness, 97 AM. J. PUB. HEALTH 1583, 1584 (2007) (“States had concerns that their ability to respond effectively to public health emergencies might be hampered because their older statutes did not reflect current thinking about individual rights and privacy and were not applicable to modern healthcare delivery systems.”).

13 Ziskin & Harris, supra note 12, at 1585. Federal and state statutes restrict the amount of time individuals may be quarantined without a court order and provide opportunities for quarantined individuals to have hearings. For example, New York City grants individuals who are suspected of carrying a communicable disease the right to a hearing and requires a court order authorizing detention for more than sixty days. 24 RCNY § 11.55(a), (f) (Supp. 2007); see also Mariner et al., supra note 1, at 586 (noting that segregating individuals suspected of being infected requires substantial justification today).

14 See infra Part II.C for a description of the nation’s response to the 2001 anthrax incident.

15 Brown, supra note 7, at 96.

16 HODGE & GOSTIN, supra note 11, at 9.

The MSEHPA aims to improve communication during a public health emergency (1) between authorities so that appropriate bodies are notified once a potential outbreak has occurred and (2) between authorities and the public so that the public understands how to protect itself and how local agencies are handling the emergency. However, the MSEHPA fails to provide a detailed communication plan. Specifically, the provisions for sharing information about a public health emergency fail to mention the Internet as a medium of communication. Moreover, the model act’s article that dictates how the authorities will notify the public of a public health emergency lacks guidelines for responding to the counterproductive effects of rapidly spread rumors and false information, which are likely to occur in an age of advanced communication technology.

The MSEHPA contains several provisions that set forth specific instructions for communicating information about a public health emergency, indicating that the drafters recognized the importance of facilitating communication during a public health emergency. For example, Article III includes instructions pertaining to the nature of the information that must be exchanged between authorities. In addition, the MSEHPA provides that only necessary information must be shared, suggesting that the drafters recognized an interest in protecting information. Further evidence that the MSEHPA drafters were concerned about the control of communication

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19 Id. §§ 303, 701.
20 Id. art. VII.
21 Id. §§ 303, 401, 403(b).
22 Id. § 303(a), (b). The MSEHPA requires the public safety authority to notify the public health authority when it receives information about an illness, health condition, or suspicious event. Id. § 303(a). It requires the public health authority to notify the public safety authority when it becomes aware of an illness or health condition that may be related to bioterrorism. Id. § 303(b). As defined by the MSEHPA, a “[p]ublic safety authority” means . . . any local government agency that acts principally to protect or preserve the public safety; or any person directly authorized to act on behalf of the . . . local agency.” Id. § 104(n). As defined by the MSEHPA, a “[p]ublic health authority” is . . . any local government agency that acts principally to protect or preserve the public’s health; or any person directly authorized to act on behalf of the . . . local public health agency.” Id. § 104(l).
23 Id. § 303(c) (“Sharing of information on reportable illnesses, health conditions, unusual clusters, or suspicious events between public health and safety authorities shall be restricted to the information necessary for the treatment, control, investigation, and prevention of a public health emergency.”).
appears in Article IV, which grants the public health authority the power to “[o]rganiz[e] public information activities” after the declaration of a public health emergency.24 This fairly broad grant of authority leaves substantial discretion to the public health authority to determine how information will be shared with the public. However, none of these provisions mention the Internet or advise the public health authority to use modern technology to assist in the response to a public health emergency.

Article VII, which addresses communicating the nature of emergencies to the public, would be the article most likely to contain directions about communicating over the Internet.25 Article VII requires the public health authority to inform the public that a public health emergency has been declared, how individuals can protect themselves, and what steps authorities are taking to address the situation.26 The article also provides guidance for communicating with disabled individuals and non-English-speaking members of the public,27 which suggests that the drafters intended to provide for widespread and effective communication. However, Article VII lacks specific guidelines for controlling the dissemination of information to the public. It fails to provide a specific method for informing the public of an emergency and instead broadly directs authorities to use “all available and reasonable means calculated to bring the information promptly to the attention of the general public.”28 It also ignores the possibility that the public may hear about the emergency declaration from another source prior to the public health authority’s efforts to communicate information about the emergency. This lack of control and specificity may prove problematic when authorities are required to respond rapidly and must decide what information to disclose, when to disclose it, and to whom it should be disclosed.29

Although the MSEHPA lacks specific guidelines for communicating to the public, the model act’s drafters

24 Id. § 403(b).
25 See id. art. VII.
26 Id. § 701. For a definition of “public health authority,” see supra note 22.
27 Id. § 701(b), (c).
28 Id. § 701(a).
acknowledged that the MSEHPA is not all-inclusive.\footnote{For example, the MSEHPA omits certain areas of law, such as regulation of health care. HODGE & GOSTIN, supra note 11, at 36.} Perhaps in recognition of its limited coverage, the MSEHPA leaves room for expanding the public health authority’s duties.\footnote{MODEL STATE EMERGENCY HEALTH POWERS ACT § 202(a).} For example, the MSEHPA allows the governor to appoint a Public Health Emergency Planning Commission,\footnote{Id. § 201.} which would be responsible for delivering to the governor a public emergency response plan that may include guidelines for notifying the public and “[o]ther measures necessary to carry out the purposes of this Act.”\footnote{Id. § 202(a).} The use of the words “other measures necessary” suggests that the MSEHPA leaves room for further regulation of communication to the public.


The federal government also recognized the need for a revised national response plan after the 2001 anthrax attacks, which left healthcare workers misinformed, members of the public panicked, and everyone confused about the seriousness of the outbreak.\footnote{Caron Chess & Lee Clarke, Facilitation of Risk Communication During the Anthrax Attacks of 2001: The Organizational Backstory, 97 AM. J. PUB. HEALTH 1578, 1580 (2007).} The nation’s shaky response moved Congress to enact the Public Health Security and Bioterrorism Preparedness Act of 2002.\footnote{Kemper, supra note 10, at 403.} The Act attempts to strengthen the federal government’s response to a bioterrorist attack.\footnote{Some commentators claim that the threat of a bioterrorist attack has been blown out of proportion and that we are wasting valuable resources trying to combat an event that is unlikely to occur. George J. Annas, The Statute of Security: Human Rights and Post-9/11 Epidemics, 38 J. HEALTH L. 319, 327-29 (2005). However, Japan, Iraq, and the former Soviet Union have all had biological weapons programs, and Iran, North Korea, and Syria are suspected of having such programs. Gostin, supra note 7, at 1119. Additional reasons to develop response strategies in the event of a bioterrorist attack include the fact that biological weapons are easy and relatively inexpensive to develop, anthrax has been used against our nation in the past decade, and drills testing our emergency procedures have demonstrated significant weaknesses in our nation’s preparedness. Id. at 1112-13.} It sets “preparedness goals” that aim to assist state and local governments in planning how to respond to an attack.\footnote{Kemper, supra note 10, at 404 (citing Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pub. L. No. 107-188, § 101(b), 116 Stat. 594, 597 (2002)).}
addition, the Act establishes the office of Assistant Secretary for Public Health and Emergency Preparedness under the Department of Health and Human Services to control the Department’s response mechanisms.38

The Act also contains a number of provisions that focus on improving communications.39 For example, it grants the Secretary of Health and Human Services the power to use the Health Alert Network (“HAN”) as the main system of communication and surveillance40 and to establish an Emergency Public Information and Communications Advisory Committee, a body charged with recommending ways to communicate a public health emergency to the public.41

The extent to which the Act provides specific guidelines for communicating to the public during an emergency is limited to designating the responsibility for developing a plan to the Secretary and recommending the creation of a federal website for bioterrorism.42 The purpose of the federal website would be to inform the public and specific interest groups, such as medical workers, about bioterrorism.43 The website would also provide links to the websites of state and local authorities.44 However, the Act does not provide guidance for conveying the authority or reliability of such a website,45 although such information would assist Internet users in distinguishing the official website from other websites that may simultaneously

38 Id. at 406.
40 Kemper, supra note 10, at 408. The HAN disseminates information concerning disease data and surveillance, treatment suggestions, and health alerts via high-speed Internet to state and local officials. Id. at 395-96. The HAN is concerned with informing health departments and providers rather than the general public. LINDA YOUNG LANDESMAN, PUBLIC HEALTH MANAGEMENT OF DISASTERS: THE PRACTICE GUIDE 148 (2d ed. 2005).
41 Public Health Security and Bioterrorism Preparedness Act of 2002 § 104(b)(3)(B), 116 Stat. at 605-06 (“The EPIC Advisory Committee shall make recommendations to the Secretary and the working group under subsection (a) and report on appropriate ways to communicate public health information regarding bioterrorism and other public health emergencies to the public.”). The committee was to terminate one year following enactment of the Bioterrorism Preparedness Act. Id. § 104(b)(3)(E), 116 Stat. at 606.
42 Id. § 104(c), (d), 116 Stat. at 606.
43 Id. § 104(b)(3), 116 Stat. at 606.
44 Id. § 104(d), 116 Stat. at 606.
45 Id. § 104(d), 116 Stat. at 606.
provide information about a particular biological agent or about the risks associated with a particular disease or vaccination.\textsuperscript{46}

The MSEHPA and the Bioterrorism Preparedness Act demonstrate that although lawmakers are contemplating methods of communication during public health emergencies, they have failed to acknowledge the Internet as an overwhelmingly popular channel of information. The Internet’s prominent role in the sharing of information makes it imperative for future legislation to account for the impact of cyberspace communications.\textsuperscript{47}

II. INFORMATION DISSEMINATED VIA THE INTERNET

The Internet’s capacity for rapid communication enables the public to become informed of an event much more quickly than in the past. But speed alone is insufficient to improve responses to emergencies in today’s Internet-dominated world. The information conveyed about emergencies must also be accurate so that the public can appropriately assess and respond to the risks.\textsuperscript{48} If the information transmitted over the Internet is not properly monitored, the Internet can augment panic or cause confusion by disseminating inaccurate or incomplete information to an overwhelmingly large audience.\textsuperscript{49}

A. Whose News Are Users Receiving?

A significant number of Americans now turn to the Internet for their daily news.\textsuperscript{50} In particular, there is a surge in Internet usage for news after major events.\textsuperscript{51} Many Internet users choose to receive alerts from websites about breaking

\textsuperscript{46} See infra Part II.C, discussing false information found online about anthrax treatment.

\textsuperscript{47} See infra Part II.


\textsuperscript{49} See supra Part II.C.

\textsuperscript{50} HORTIGAN, supra note 2, at 1 (finding that “35% of adult internet users, or about 50 million adults, check the news online on the typical day” and that “[a]fter email and going online to conduct a search, news is the third most popular online activity on the average day”). “For broadband internet users, online news is a more regular part of the daily news diet than is the local paper; it is nearly as much of a daily habit as is getting news from national TV newscasts and radio.” Id. at 1.

\textsuperscript{51} Id. at 3 (“[M]ajor news events create spikes in online news consumption.”).
news and headlines.\textsuperscript{52} At times, the Internet is the only way that information about a particular event can be globally transmitted,\textsuperscript{53} and it is often more accessible than many other media sources.\textsuperscript{54}

Compared to traditional news media forms such as newspapers and television programs, the Internet allows individual users to play a more significant role in how information is conveyed.\textsuperscript{55} Although reputable online news sources dominate the sharing of information over the Internet,\textsuperscript{56} individual users, through alterable media outlets such as message boards, also impact how information is selected and relayed online.\textsuperscript{57} Unlike the telephone, which allows for quick communication but is usually limited to one-on-one conversations between people who know each other, the Internet allows a multitude of strangers to exchange information and ideas concerning news.\textsuperscript{58} Communities in which users share videos, opinions, and information through cyberspace have grown overwhelmingly popular.\textsuperscript{59} Active Internet users often

\textsuperscript{52} Id. at 16 (finding that users who elect to receive news alerts from websites want information about headlines or breaking news).

\textsuperscript{53} See, e.g., Seth Mydans, Monks' Protest Is Challenging Burmese Junta, N.Y. TIMES, Sept. 24, 2007, at A1 (describing how photographs, videos, and audio files of protests were communicated over the Internet after Myanmar's government prohibited foreign journalists from entering the country).

\textsuperscript{54} For example, users can connect to the Internet through their cell phones. David A. Kelly, Tools for Travelers, N.Y. TIMES, Sept. 17, 2007, at H2 (“Most mobile phones offer Internet access and Web browsers.”); see also http://www.getreadygear.com/pdfdocs/Telephone%20Tips%20to%20Support%20Your%20Emergency%20Communications%20Plan.pdf (recommending the use of a wireless phone to obtain weather information via the Internet during an emergency).

\textsuperscript{55} HORRIGAN, supra note 2, at 8.

\textsuperscript{56} Id. at iv (“46% of all internet users say they go to the website of a national TV news organization such as CNN or MSNBC . . . . ”).

\textsuperscript{57} Id. at 8-9; see also SABLEMAN, supra note 1, at 239 (“A message or bulletin-board posting can be updated or changed many times after its first publication and hence be viewed by many different readers with many different contents.”).

\textsuperscript{58} HORRIGAN, supra note 2, at 8 (noting that some people rely on “elite broadband users,” or “users with the closest relationship with the internet,” to obtain information). These elite users influence the selection of information made available online. Id. at 8-9.

\textsuperscript{59} Lev Grossman, Person of the Year: You, TIME, Dec. 25, 2006. In 2006, Time magazine named its person of the year “You,” emphasizing the explosion of Internet outlets such as YouTube, Facebook, and Wikipedia. Id. In addition, the blogging phenomenon has grown exponentially and given voice to reviewers, commentators, and skeptics who may otherwise have remained silent or lacked the publicity needed to have any impact. (For a definition of “blog,” see infra note 61.) See, e.g., Neva Chonin, LiveJournal Grew Out of One 18-year-old’s Frustration with Web Journaling, S.F. CHRON., Sept. 27, 2005, at E1 (describing the “burgeoning universe known as the blogosphere”); Greg Sandoval, Peas in a Podcast, MIAMI HERALD, July 19, 2005, at 8C
become “opinion leaders,” serving as a source of news to other people and shaping the market for information online. These active news consumers occasionally obtain information from non-traditional websites, such as blogs or listservs. In sum, news disseminated over the Internet is subject to more individualized control than news disseminated through other channels. Such individualized control over information communicated to the public has the potential to cause chaos in the aftermath of a public health emergency.

Besides giving individuals greater influence on news content, the Internet threatens stability during and after a public health emergency by providing a virtually unlimited landscape for individuals to express themselves. Many people engage in political speech over the Internet to provoke public response and communicate political views about particular events. Since public cooperation is crucial to the success of a

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60 Hornig, supra note 2, at 8-9 (“[O]pinion leaders . . . [are] elite broadband users [who] are likely to be people others rely upon when gathering information of various sorts.”).

61 Id. at iv, 13 (“Though the news sites of established media organizations dominate among the broadband elite for daily news, it is notable that a sizeable share of elite broadband users turn to non-traditional sites at about the same rate all internet users did for general news in the internet’s prehistoric days.”).

62 Shifting focus from the group to the individual weakens society’s ability to effectively respond to public health emergencies. Wendy E. Parmet, Unprepared: Why Health Law Fails to Prepare Us for a Pandemic, 2 J. HEALTH & BIOMED. L. 157, 178 (2006) (demonstrating that in the context of the flu vaccine market, individuals make decisions based upon their individual interests, which ultimately weakens society’s ability to respond to surge demands in the event of an epidemic).

63 “[T]he Internet provides an easy and inexpensive way for a speaker to reach a large audience, potentially of millions.” Am. Civil Liberties Union v. Reno, 929 F. Supp. 824, 843 (E.D. Pa. 1996). During the SARS outbreak, individuals used the Internet and other modern channels of communication to spread news during a health emergency. Kristen Farrell, The Big Mamas Are Watching: China’s Censorship of the Internet and the Strain on Freedom of Expression, 15 MICH. ST. J. INT’L L. 577, 582 (2007). Chinese citizens’ command of the information fortunately aided rather than impeded the response to the outbreak. Id. at 582, 595. But some individuals may refuse to accept that an emergency exists or will argue against any compromise of individual liberties. See, e.g., Gostin, supra note 7, at 1140 (“[T]he journals, newspapers, and Internet are replete with claims that no legal authority should exist to vaccinate, treat, and quarantine individuals or to abate nuisances, seize property, or take property for public uses.”).

64 See, e.g., Zieper v. Metzinger, 474 F.3d 60, 63 (2d Cir. 2007) (plaintiff posted a controversial video about a military takeover in New York City on a website); Planned Parenthood of Columbia/Willamette, Inc. v. Am. Coalition of Life Activists,
response to a public health emergency, officials must be aware of individuals who may cast doubt on either the nature of the threat or the government’s ability to effectively respond to the situation. In the event such individuals interfere with communication of accurate information to the public, officials must be prepared to correct any misleading information and clarify the nature of the emergency.

B. Online Health Information: How Reliable Is It?

The Internet’s ability to allow people to share information has certainly benefited modern society by increasing efficiency. But unclear or incorrect information can be dangerous because many users rely heavily on health information they find online, despite the fact that such information is not always accurate or up to date.

The Internet makes an abundance of health information freely available. A recent study revealed that most Internet

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65 See Gostin, supra note 7, at 1166 (discussing the importance of community cooperation when working with the government to take protective actions).

66 See infra Part III.B.2.

67 See Amy Keane, Annotation, Validity of State Statutes and Administrative Regulations Regulating Internet Communications Under Commerce Clause and First Amendment of Federal Constitution, 98 A.L.R.5th 5167, § 2(a) (2002) (noting that the Internet connects individuals and provides methods “for free exchange of information and ideas”).

68 FOX, supra note 4, at 13 (“Another factor in the eroding attention to information quality indicators is the sense of confidence and efficacy prevalent among most internet users.”). Most people using the Internet to find health information were confident in the quality of the information they found. Id. at 13. But some commentators would advise them to be more conscientious. See Sean B. Hoar, Trends in Cybercrime: The Dark Side of the Internet, 20 CRIM. JUST. 4, 5 (2005) (“The growth of the Internet has been accompanied by an increase in newly detected system ‘vulnerabilities’—insecure areas that may threaten the security of a computer system.”).

69 See Tamar Lewin, Anthrax Drug Sold Online Leads to Suit, N.Y. TIMES, Jan. 12, 2002, at A9; see also FOX, supra note 4, at 11-12.

70 See FOX, supra note 4, at 4 (finding that users turned to the Internet for information on diverse health issues, including specific diseases, nutrition, and environmental health hazards); see also Audiey C. Kao & Erica Ozanne Linden, Direct to Consumer Advertising and the Internet: Informational Privacy, Product Liability and
users in the United States have looked for health information online, including information about diseases, vaccinations, and environmental hazards. In addition, the information users obtained online influenced the actions they took with regard to their health. Although the information was sometimes confusing or overwhelming, only one-third of users surveyed who obtained health information online consulted a doctor about the information they found. Perhaps most importantly, the study showed that people who researched health issues online were largely unconcerned about the quality and accuracy of the information displayed on websites. Instead, users displayed a deep confidence in what they read online.

This confidence is not always warranted. Indeed, the Internet’s popularity as a source of medical information has raised concerns about consumers’ willingness to trust and act upon health information made available online without consulting healthcare professionals. These concerns are well founded: one study found that about three million adults were

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71 Fox, supra note 4, at i ("Eighty percent of American internet users, or some 113 million adults, have searched for information on at least one of seventeen health topics.").

72 Id. at 8 (finding that fifty-three percent of users reported that the health information that they obtained online had some impact on their actions, including an impact on how such users treated an illness or condition, an impact on diet and exercise, and an impact on the user’s decision to consult a doctor).

73 Id. at 9.

74 Id. at 6. This reliance on information obtained via the Internet has raised some concerns in the healthcare community. Id. ("One of the concerns that the medical community expresses about online health seekers is whether they are self-diagnosing and self-medicating based on the material they find online and without consultation with medical experts.").

75 Id. at 11 (noting that very few health websites provide information about the source and date of information displayed on their pages).

76 Id. at 13. Even if users were concerned about the date and source of information, such details are not easily obtained. Id. at 11-12.

77 Id. at 6.
harm or knew someone who had been harmed due to information obtained from the Internet. One example of how the Internet provides a venue for inaccurate health information is the availability of prescription drugs through websites that do not adhere to licensure or prescription laws. Such websites have caused concern about protecting the public against unlicensed physicians who may not be qualified to diagnose patients and prescribe medications for them. During the chaos of a public health emergency, officials cannot afford to risk further confusion caused by unreliable, unofficial websites that the public visits.

C. Panic Attack: The Need for Controlled Communication

The fact that the Internet has become a heavily accessed source of information combined with the fact that its content is not always reliable suggests that it has the potential to negatively impact the response to a public health emergency, particularly if inaccurate information leads to confusion and panic. People undoubtedly panic during health emergencies and such panic can inhibit an effective response. Some

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78 Id. at 8.

79 Silverman, supra note 70, at 261-62, 266 (emphasizing the concern with “many interactions which can be conducted on the Internet that are ‘totally distance-insensitive’ and that raise both significant public protection concerns, and serious questions about the ability of individual state medical boards to continue to fulfill their police power responsibilities of protecting against unlicensed practitioners of dubious quality”) (citing Jay H. Sanders, Future Trends: Telemedicine, 82 FED. BULL. 191, 191 (1995)). We have also seen the development of cybermedicine, which involves physicians diagnosing patients over the Internet. Id. at 265.

Some online pharmacies took advantage of public fear and failed to follow proper prescription procedures after the anthrax attacks in 2001. Lewin, supra note 69 (describing a suit that was brought once attorneys general realized the Internet was plagued with hoaxes involving drugs and decontamination kits after the anthrax attack). Florida and Washington State attorneys general pursued litigation against an online pharmacy that prescribed ciprofloxin for the treatment of anthrax without speaking with or examining patients and without informing Internet consumers about the risks associated with taking the antibiotic. For example, taking ciprofloxin without actual exposure to anthrax may render it ineffective in the future. Id. Washington attorney general Christine Gregoire spoke of the need to prevent anyone from “violat[ing] our laws and threaten[ing] people’s health in order to profit from the fear of bioterrorism” (quoted in Lewin, supra note 69).

80 See Schneider & McDonald, supra note 48, at 587 (noting that being able to quickly understand the risk involved in a particular incident “empowers [the public] to make better decisions regarding . . . risks in crises, which in turn reduces anxiety, and the economic drains of community bereavement, and infrastructure overload”); see also Gostin, supra note 7, at 1167 (“A panicked public will require a much greater force of peacekeepers—police or the National Guard, for instance—to maintain order. Building the public’s trust through communicating correct and timely information is crucial to successful management of any emergency.”).
individuals become convinced that they have been exposed to a disease even though their risk of exposure may be small. As a result, hospitals experience a surge of patients, many of whom have not been exposed to disease, and often reach their capacities. On a community level, groups known as “worried wells” form, composed of individuals who are not actual victims of health-threatening conditions but who nevertheless become fearful after an incident.

The responses to the 2001 anthrax attack and the 2004 SARS epidemic illustrate how new technology that allows information to spread quickly may contribute to public panic, resource depletion, and inefficient emergency response. Our nation’s reaction to the anthrax attacks is often cited as a primary example of poor communication during a public health emergency. Although word of the outbreak spread quickly, the public and media did not receive accurate information: public health authorities were overwhelmed by phone calls

81 Schneider & McDonald, supra note 48, at 582.
82 Id. (noting that idiopathic symptoms caused people to flock to facilities in “Dark Winter,” a simulation of a smallpox attack). Indeed, during the SARS outbreak, health care providers worked in the background of “intense scrutiny of a frightened media and populace.” Belmont et al., supra note 29, at 507.
83 LANDESMAN, supra note 40, at 233. These “secondary victims” change their behavior because they are fearful, not necessarily because they have been exposed to disease. Schneider & McDonald, supra note 48, at 586.
84 See, e.g., Ahle, supra note 7, at 225 (“The most important information to be gleaned from the high-profile anthrax experience is the necessity of clear and effective communication.”). There were twenty-two reported cases, ultimately resulting in five deaths. Schneider & McDonald, supra note 48, at 587; see also Kemper, supra note 10, at 388 (noting that the affected areas included five states and the District of Columbia). Despite the small number of people actually infected, over 35,000 people received antibiotic prescriptions. Schneider & McDonald, supra note 48, at 587. The “worried well” ratio during the scare exceeded 30:1. LANDESMAN, supra note 40, at 243; see also Maureen Lichtveld et al., Preparedness on the Frontline: What’s Law Got to Do with It?, 30 J. L. MED. & ETHICS (SPECIAL SUPP.) 184, 186 (2002) (noting that people in every state feared exposure and requested either testing of themselves or of white powder); Chess & Clarke, supra note 34, at 1578 (noting that “white powder scares” occurred even in non-contaminated areas). The high rate of prescriptions could have been due to the fact that, nationwide, forty-six percent of people held the incorrect belief that the disease was contagious. Id. Anthrax is not known to be contagious. CDC, Anthrax: What You Need to Know, http://www.bt.cdc.gov/agent/anthrax/pdf/needtoknow.pdf (last visited Mar. 29, 2008). Nevertheless, concern was warranted because anthrax kills eighty-five percent of the people it infects. HODGE & GOSTIN, supra note 11, at 8 tbl. 1 (citing Melissa Hendricks, Rx Against Terror, JOHNS HOPKINS MAG., Feb. 1999, available at http://www.jhu.edu/~jhumag/0299web/germ2.html#germa).
85 News of the scare traveled rapidly, as is evident from the panic in New Jersey, which was the state most affected by the attack. Ziskin & Harris, supra note 12, at 1583 (2007) (identifying New Jersey as “the epicenter of the anthrax outbreak of 2001”). In less than three weeks, more than seventy percent of New Jersey’s residents feared they were in danger of anthrax exposure. Chess & Clarke, supra note 34, at 1578.
from concerned residents, and members of the media struggled to obtain information, often relying on unofficial sources. The Internet added to the problem of a panicked and misinformed public when, shortly after the outbreak, it was infiltrated with advertisements for ciproflaxin, the antibiotic used to treat anthrax. Some less reputable websites even offered anthrax treatment in the form of a drug that was also sold for weight control.

The response to the SARS outbreak is an even more troubling example of poor emergency response. Modern technology likely contributed to what one public health official identified as the biggest challenge during the SARS scare: the fear and panic that spread after the outbreak. Response management was particularly poor in China. The Chinese government, concerned about instability, remained silent about the outbreak. Consequently, government officials were forced to rely on the Internet to obtain information. Many of the updates about the incident were transmitted through chat rooms. The lack of direct comment from the government allowed false information to spread, resulting in chaotic

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86 Chess & Clarke, supra note 34, at 1578. New Jersey's Department of Health and Senior Services received over 6000 phone calls from October 1, 2001 until November 30, 2001, while the Center for Disease Control received over 8860 calls during the scare. Id.

87 WING ET AL., supra note 1, at 717 (“Faced with either poor access to public health officials or inadequate information, reporters scanned websites, downloaded articles, and attempted to identify experts. Without information from the public health authorities, one journalist noted that they had to assemble pieces of the anthrax puzzle from a variety of what they hoped would be credible sources.” (quoting Elin Gursky et al., Anthrax 2001: Observations on the Medical and Public Health Response, 1 BIOSECURITY & BIOTERRORISM 97 (2003))). The Government Accountability Office reported that much of the panic and fear could have been diminished had the media been better informed throughout the incident. Chess & Clarke, supra note 34, at 1579.

88 See supra note 79; see also Diana B. Henriques, Anthrax Drug Is Promoted on Web Sites, N.Y. TIMES, Oct. 15, 2001, at C8; Lewin, supra note 69.

89 Henriques, supra note 88.

90 Annas, supra note 36, at 336 (citing Stephen Smith, US Allows for SARS Quarantines; Health Officials Say None Are Planned Yet, BOSTON GLOBE, Apr. 5, 2003, at A2). “SARS . . . appeared in a society equipped with instant global communication that made management of people through information much more important than management of people through police actions. With the Internet, information now spreads like a virus, but much faster.” Id. at 331.

91 See Farrell, supra note 63, at 595-96.

92 Id. at 581.

93 Id. at 582.

94 Id.
responses in some areas.\textsuperscript{95} In addition, poor communication caused healthcare providers to be exposed to the disease.\textsuperscript{96}

The reactions to the anthrax and SARS incidents demonstrate that authorities must achieve an artful balance by communicating clear and consistent information to the public without overwhelming media channels with too much information and causing panic.\textsuperscript{97} It is clear after these incidents that emergency response protocols must incorporate a plan for assuring that the Internet will distribute accurate information to citizens rather than add to confusion. This would increase the likelihood that public health emergencies are properly managed, especially since so many people rely on the Internet for information about their health.\textsuperscript{98} By staying tuned to the information shared over the Internet and responding to the spread of false information, authorities can prevent individuals and worried wells from augmenting the levels of confusion and panic during public health emergencies.\textsuperscript{99}

\textsuperscript{95} One rumor cautioned that Beijing would be placed under martial law and led to a mass exodus of workers and other citizens. Annas, supra note 36, at 332-33. In addition, healthcare providers lacked important information and were eventually exposed to the disease. See Farrell, supra note 63, at 581-82.

While China set a negative example by failing to provide an authoritative account of a health emergency, Canada might have been too thorough about communicating during the SARS outbreak. Federal, provincial, and local governments used both the Internet and a telephone hotline to communicate with the public. MARK A. ROTHSTEIN ET AL., QUARANTINE AND ISOLATION: LESSONS LEARNED FROM SARS: A REPORT TO THE CENTERS FOR DISEASE CONTROL AND PREVENTION 57 (2003), available at http://louisville.edu/bioethics/public-health/SARS.pdf. But there were too many voices speaking at once, which resulted in a lack of cohesive information. Id. Several government officials commented on the nature of the outbreak, but they did not always deliver consistent information. Id.

\textsuperscript{96} Healthcare providers lacked important information during the SARS outbreak and were eventually exposed to the disease. See Farrell, supra note 63, at 581-82.

\textsuperscript{97} For example, emergency response models should incorporate the social influence that “secondary victims” exert after an attack. Schneider & McDonald, supra note 48, at 586.

\textsuperscript{98} See supra Part II.B; see also Gostin, supra note 7, at 1167.

\textsuperscript{99} Of course, confusion is a natural consequence of a public health emergency and should be expected to impede communication to some extent. Chess & Clarke, supra note 34, at 1578. George Annas acknowledges that we are living in a new communication era and argues that the rapid spread of information using modern technology is essential to combating fear that spreads through the public. Annas, supra note 36, at 339 (“The rapid exchange of information, made possible by the Internet and an interconnected group of laboratories around the world . . ., [was] critical to combating fear with knowledge. Information really does travel faster than even a new virus, and managing information is the most important task of modern public health officials. People around the world, provided with truthful, reasonable information by public health officials, who are interested in both their health and human rights, will follow their advice.”). However, Annas does not suggest how to effectively communicate coherent, cohesive information to the public. Unless authorities improve communi-
III. GOING FORWARD: WHO, WHAT, AND HOW

New emergency response legislation should include steps to prevent or respond to misinformation disseminated over the Internet in order to ensure that public health authorities are equipped to communicate with the general public in the most efficient way possible. Legislators should consider several issues in revising emergency response plans to account for the Internet’s impact. First, they should clarify the role of state and federal governments. Second, they should decide on effective and appropriate content for the plans. Third, they should be prepared to defend the regulation of information dissemination against objections, such as claims that Internet regulation infringes personal liberties, violates principles of federalism, and conflicts with U.S. policy toward free speech over the Internet.

A. Who Imposes Regulations?

Legislation that aims to implement a successful response plan should clarify the appropriate level of government to take the lead in ensuring effective communication during public health emergencies. As a matter of federalism, the power to protect public health and safety rests within the states’ police power. Therefore, an updated plan for responding to public health emergencies should be incorporated into state legislation. However, there are benefits to involving the federal government in the response plan, including more unified protection of citizens and much
needed support for states from the federal government. More importantly, legislation that addresses the Internet poses a particular challenge because the Internet falls within the realm of interstate commerce, an area that the Constitution delegates to the federal government. One possible solution to allowing the states to exercise their police power while avoiding encroachment on the federal government’s congressionally delegated authority to regulate interstate commerce is a compromise between state and federal authority. For instance, Congress could pass legislation that grants states the authority to regulate Internet activity during public health emergencies. Congress could also commission the drafting of a model act, much like the MSEHPA, to serve as a recommendation from the federal government to the states as to how to incorporate Internet communication into their emergency response statutes.

In addition to clarifying which level of government should exercise control during an incident, public health and law enforcement authorities should consider involving regulatory agencies to assist with the response to a public health emergency. The response plan should include a list of agencies to which public health officials may turn during an emergency. For example, the plan could incorporate state authorities, such as state attorneys general and departments of human services, to assist in the response. On the federal level, the plan could enlist the Federal Emergency Management Agency (“FEMA”) to assist with communication. FEMA’s involvement would be appropriate since it retains responsibility for the Emergency Alert System, a method of communicating to the public via broadcast during an

Internet as an area of commerce that requires national regulation to avoid inconsistencies among the states; Am. Library Ass’n v. Pataki, 969 F. Supp. 160, 169 (S.D.N.Y. 1997) (“[T]he Internet is one of those areas of commerce that must be marked off as a national preserve to protect users from inconsistent legislation that . . . could paralyze development of the Internet altogether.”); Ahle, supra note 7, at 228 (noting that the federal government has claimed the right to use the Internet to establish a national information database in connection to an influenza pandemic).

Gostin, supra note 7, at 1160-61 ("[T]he federal government must be prepared to provide support for state and local governments that may be overwhelmed by the sudden drastic increase in public health needs.").
emergency.\textsuperscript{108} Since information concerning drug treatment may be among the misleading or confusing information available over the Internet during a public health emergency,\textsuperscript{109} the Federal Trade Commission, which has the authority to regulate drug marketing,\textsuperscript{110} could play a useful role in Internet regulation during a public health crisis by promoting awareness of proper treatments for health-threatening conditions.

Perhaps the agency with the most appropriate experience and authority to regulate is the Federal Communications Commission, which is responsible for regulating communications between states through various means, including wire, cable, and telephone transmissions.\textsuperscript{111} The Joint Advisory Commission ("JAC"), a subdivision of the FCC that assists with emergency medical and public health care facility communications,\textsuperscript{112} may be able to assist with proper information dissemination over the Internet.\textsuperscript{113}

\textbf{B. Content of Regulations}

1. Silence Is Far from Golden

After deciding the roles that state and federal governments will play, legislators must choose the substantive content of the legislation. A good starting point is to learn from past responses to public health emergencies. In particular, China's response to the 2004 SARS outbreak, characterized by poor communication management, demonstrates methods that

\textsuperscript{108} \textsc{Landesman, supra} note 40, at 140. The Emergency Alert System enables the government to use broadcast stations and cable systems to communicate warnings to the public and has become the country's main warning system. \textit{Id.} Other federal agencies that are typically involved in responding to emergencies include the U.S. Office of the Assistant Secretary for Public Health Emergency Preparedness, the CDC, and the Agency for Toxic Substances and Disease Registry. \textit{Id.} at 231.

\textsuperscript{109} \textit{See supra} Part II.C (discussing anthrax drugs available online after the 2001 anthrax incident).

\textsuperscript{110} \textit{See Janine S. Hiller \\and \ Ronnie Cohen, Internet Law \\and Policy 96 (2002).

\textsuperscript{111} \textsc{Federal Communications Commission, About the FCC, www.fcc.gov/ aboutus.html} (last visited Mar. 29, 2008).


\textsuperscript{113} The JAC's responsibilities would have to be expanded because they are currently restricted to assisting communication among different healthcare facilities and do not involve furthering communications between public health authorities and the public. \textit{Id.}
public health authorities and agencies should avoid.\footnote{114 See supra Part II.C for an overview of China’s response to the SARS outbreak; see also LANDESMAN, supra note 40, at 133 (“When planning for [a public health] agency’s overall response, include communication as a section in the plan. This component should describe how you will communicate messages about the emergency and who will deliver the message.”).}

The Chinese government, fearing a threat to stability, remained silent during the SARS outbreak and placed a ban on the media, preventing news of the virus from reaching the public.\footnote{115 See Farrell, supra note 63, at 582; see also supra Part II.C.}

As a result, physicians and government officials were uninformed as they responded to the crisis.\footnote{116 Farrell, supra note 63, at 582. Our nation saw a similar problem during the anthrax outbreak: one report found that not all of the data from the outbreak areas was shared with the relevant parties. Chess & Clarke, supra note 34, at 1579 (citing NAT’L RESEARCH COUNCIL, REOPENING PUBLIC FACILITIES AFTER A BIOLOGICAL ATTACK: A DECISION-MAKING FRAMEWORK (2005), available at http://books.nap.edu/openbook.php?record_id=11324&page=6). Healthcare workers were distressed at having to rely on the media for information during the anthrax attacks. Chess & Clarke, supra note 34, at 1580 (“This trickle-down form of communication made it more difficult to direct staff to exude ‘confidence and competence’ when dealing with workers.”).}

China’s method of handling the SARS outbreak demonstrates that withholding information from the public is potentially the worst decision a government can make and that an informed public is a crucial legislative goal for new emergency response legislation.\footnote{117 Annas, supra note 36, at 329 (arguing in favor of an informed public and cautioning that, in the context of a terrorism event, terrorists want to keep potential attacks secret, so “the best defense from a potential target is to make this information public”). Legislation should direct authorities to relay important messages over the Internet as quickly as possible. See LANDESMAN, supra note 40, at 135 (explaining that officials occasionally report an event when it is too late); Belmont et al., supra note 29, at 515.}

China’s strict regulation of the Internet likely added to the stifled communication during the SARS outbreak. China regularly engages in a censorship of the Internet that raises serious questions about the government overstepping its boundaries.\footnote{118 See generally Farrell, supra note 63 (evaluating the impact of China’s Internet regulations on freedom of expression).}

China has gone to extremes to exercise control over the nature of the information that becomes available to citizens through cyberspace.\footnote{119 Id. at 586-87.}

Internet providers must keep records of website content and track subscribers.\footnote{120 Id. at 586.}

The providers are subject to severe sanctions if they fail to comply with such requirements.\footnote{121 Failure to comply could result in loss of business license and arrest. Id.} On the user side, Internet sub-
scribers must register with their local police bureaus. Enforcers known as “cyercops” and “big mamas” patrol the Internet looking for offenders, edit blogs, and delete chat room dialogue. Such an extreme level of regulation is harmful to society because it has the potential to create paranoia and self-censorship for fear of government retaliation. Furthermore, while China’s extreme restrictions on Internet content can be detrimental in any context, they are especially harmful during public health emergencies, when clear and efficient communication is essential.

2. The Right Way to Spread the Word

In addition to requiring open communication about emergencies to the public so as to avoid China’s blunders during the SARS outbreak, response plan legislation should provide a means of protecting the information that is exchanged among authorities and communicated to the public. New regulations should prescribe ways to control information disseminated via the Internet and should require health authorities and agencies to maintain and regularly update virus and firewall protections to keep information accurate and secure. New legislation should also require officials to encrypt the messages they send to one another to ensure that the correct information is passed from high-level officials down to the public.

Aside from protecting information, the legislation should include methods for efficiently communicating to the public via the Internet during a public health emergency. Specifically, the legislation should instruct public health authorities to establish a mapping program that could be used to notify the public about the geographic scope of an emergency

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122 Id.
123 Id. at 587.
124 Id. at 592. Nevertheless, there are occasions, such as public health emergencies, when some regulation and governmental interference are appropriate. Id. at 596 (“[I]n times of health crises such as the SARS epidemic the government should be afforded some amount of control—at least as is necessary to maintain public order.”). See supra Part II.C.
125 See supra Part II.C.
126 See LANDESMAN, supra note 40, at 143 (recommending that computers used for communication about disaster-related activities be equipped with “sufficient security,” including “firewall, password protection, [and] virus scanning”).
127 HILLER & COHEN, supra note 110, at 39 (“Encryption is the application of a code to a communication in order to hide its message.”).
and the availability of resources. To increase the chance that the public is fully informed in advance of an attack, the legislation should require state authorities to create and advertise local websites that contain relevant and up-to-date information, such as helpful contacts, evacuation procedures, and developments in the emergency. It should also require officials to regularly update any website used to communicate information to the public during a public health emergency and respond to public perception of an event through that website.

In addition to creating websites to communicate to the public during a public health emergency, authorities must be wary of unauthorized websites that convey inaccurate information. One method of combating this problem is to require websites to provide details about their information sources and sponsors. For example, the Department of Health and Human Services recently announced a plan to encourage websites to provide details about website authority and credibility, such as the sources of the information provided, how the content is updated, the websites’ sponsors, and the websites’ purposes. A revised response plan should require official websites to display a certificate or seal indicating that the information provided on the website is accurate, current, and trustworthy.

In addition to recommending the creation of official websites to improve communication between public health authorities and citizens, the legislation should advise officials on how to use the media to improve, rather than distort,

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128 LANDESMAN, supra note 40, at 109-10 (“Maps provide a common platform for everyone to visualize needed information about the location of events, resources, transportation, [and] emergency networks . . . .”).

129 Ahle, supra note 7, at 234 (reviewing the failed communications in the aftermath of Hurricane Katrina); LANDESMAN, supra note 40, at 134 (“Web sites can be used for communication to both the press and the public.”).

130 LANDESMAN, supra note 40, at 134.

131 Websites can re-establish themselves under different names, even after being designated as illegitimate or non-trustworthy: for example, online pharmacies cannot be prevented from re-opening under a new website name. Silverman, supra note 70, at 274.

132 FOX, supra note 4, at 12 (noting that the Department of Health and Human Services sought to “increase the proportion of health-related websites that disclose information that can be used to assess the quality of the site”).

133 Such a method has been used for designating particular online pharmacies as safe and trustworthy. The National Association of Boards of Pharmacy relies on such a seal, which online pharmacies earn if they “maintain all necessary state pharmacy licenses, follow all appropriate pharmacy laws and regulations, and pass a seventeen point test and a site inspection.” Silverman, supra note 70, at 271-72.
communication.\textsuperscript{134} Considering that many people obtain information either directly from the Internet or from active Internet users and that the Internet provides so many venues for sharing information, the Internet may be one of the best ways to use media channels during a response to a public health emergency.\textsuperscript{135} The new response plan should instruct authorities to disseminate positive, factual, and clear messages through Internet media channels.\textsuperscript{136} The legislation should also require authorities to use the Internet to educate the public about safety precautions.\textsuperscript{137} Active Internet users, known to provide information to less-practiced users, would thus potentially play a significant role in educating others about emergencies over the Internet.\textsuperscript{138} An educated public could then participate in response efforts and provide support for healthcare workers and authorities.\textsuperscript{139} Finally, the legislation should require authorities to test the effectiveness of Internet communication during times of non-emergency by practicing coordinated information releases.\textsuperscript{140}

While establishing secure Internet sites would increase the chance that the public receives accurate information during emergencies,\textsuperscript{141} a more aggressive approach to controlling information would be to intercept communications directly by restricting certain activities occurring over the Internet. To that end, the proposed legislation should grant public health officials authority to demand that website administrators correct any misleading or false information displayed on their websites.

The Illinois Pandemic Influenza Preparedness and Response Plan exemplifies a response plan that incorporates the Internet, recognizes the possible role of agencies, and

\textsuperscript{134} See LANDESMAN, supra note 40, at 156. The media can help issue warnings and Public Service Announcements instructing citizens how to protect themselves. Id. at 250-51.

\textsuperscript{135} See supra Part II.A-B.

\textsuperscript{136} LANDESMAN, supra note 40, at 133-34.

\textsuperscript{137} Id.

\textsuperscript{138} See HORRIGAN, supra note 2, at 8 (establishing that people rely on active Internet users for news). In fact, the “rumors” that were spread during the SARS outbreak in China were accurate pieces of news. Farrell, supra note 63, at 582-83.

\textsuperscript{139} Ahle, supra note 7, at 243; see also Gostin, supra note 7, at 1167 (suggesting one way for community members to participate is to organize volunteers or circulate messages).

\textsuperscript{140} Ahle, supra note 7, at 240 (advocating that a communications plan “be tested and practiced prior to a pandemic to ensure that it is effective”).

\textsuperscript{141} LANDESMAN, supra note 40, at 134 (suggesting that websites be used to deliver messages to the media and the public during emergencies).
provides a clear communication strategy. The plan relies on state and local websites to provide information to the public. It also enlists the help of several state agencies, including the Illinois Department of Human Services and the Office of the Attorney General. The plan’s communication strategy involves educating the media and the public about risks and responses during an emergency, conducting drills to assess communications, and addressing the needs of specific populations, such as the disabled, that might have special needs for obtaining information. Legislators should follow Illinois’s example by enacting a comprehensive response plan that utilizes modern communication systems and agency expertise.

C. Responding to Objections

Legislation that aims to regulate information dissemination is sure to raise objections. Aggressive regulation of Internet content is particularly controversial because it implicates individual liberties, blurs the line between state and federal authority, and challenges certain U.S. policy objectives. Nevertheless, Internet regulation in the face of a public health emergency can be defended against these potential objections.

1. Constitutional Objections

If states or the federal government adopt regulations that restrict information sharing over the Internet, a significant concern would be whether such regulations interfere with individual liberties. Internet regulatory authority has been granted to federal agencies such as the Federal Trade Commission and the U.S. Department of Commerce Bureau of Export Administration. Nevertheless, there is an ongoing debate surrounding Internet regulation, weighing public safety and security concerns against privacy, free trade, and free speech interests. Arguments in favor of regulating the Internet to protect individual interests, such as shielding

142 Ahle, supra note 7, at 229-30, 232.
143 Id. at 232. The plan also suggests running rumor control hotlines. Id.
144 Id. at 230.
145 Id. at 232.
146 Hiller & Cohen, supra note 110, at 26, 41, 96-98.
147 Id. at 25-26, 41-42, 95-98.
minors from obscene materials and keeping personal identification information secure, have been asserted against arguments in favor of an unregulated Internet made by industry and political groups.148

For the most part, the Internet enjoys the same strict level of First Amendment protection given to newspapers, magazines, and books.149 The Supreme Court has recognized the value of protecting website content in the interest of free expression.150 This recognition suggests that Internet regulation implicates highly valued constitutional rights.151 If the proposed legislation is challenged on First Amendment grounds, the government should emphasize that individual rights are not limitless.152 Under First Amendment law, freedom of speech is limited by content because not all forms of speech are protected.153 Political speech, or the expression of ideas, receives the most protection, while commercial speech, such as advertising, receives less protection.154 Speech that endangers the public is not protected by the First Amendment.155 Therefore, speech over the Internet that creates chaos and confusion by

148 See id. at 25-26, 98.
149 KENNETH C. CREECH, ELECTRONIC MEDIA LAW AND REGULATION 56, 412 (5th ed., 2007) (“The Internet is treated more like the print media, with full First Amendment protection, not like broadcast media with limited freedoms.”). Censoring a news story is only permitted under rare circumstances. Marjorie A. Shields, Annotation, First Amendment Protection Afforded to Web Site Operators, 30 A.L.R. 6th 299, § 2 (2008).
150 See Reno v. Am. Civil Liberties Union, 521 U.S. 844, 885 (1997) (rejecting the argument that failure to regulate obscene materials over the Internet will drive users away and stunt Internet growth); see also SABLEMAN, supra note 1, at 247 (noting that the Supreme Court upheld the lower court’s decision finding the Communications Decency Act unconstitutional in part because of how highly society values free expression).
151 For example, in fighting cybercrime, two constitutional rights that are implicated are the First Amendment freedom of speech and the Fourth Amendment protection against search and seizure. HILLER & COHEN, supra note 110, at 166.
152 WING ET AL., supra note 1, at 664 (“Even speech, perhaps the most closely protected constitutional right, can be subject to regulation or even prohibited altogether if the government’s purpose is ‘compelling’ and the means for achieving that purpose are ‘sufficiently tailored.’”).
153 HILLER & COHEN, supra note 110, at 50.
154 Id. Electronic speech, or speech that occurs on the Internet, includes the display of words and images, website addresses, domain names, and software code. A crucial difference between electronic speech and traditional speech is that millions of users around the world have access to the former. Id. at 49. Regardless of this distinction, any regulation affecting the expression of an opinion or idea is subject to strict scrutiny and will often be found unconstitutional. Id. at 50.
155 Id. at 50 (offering the act of “shouting ‘Fire!’ in a crowded theater” as an example of speech that “presents a clear and present danger”).
misinforming the public during an emergency is not entitled to First Amendment protection.

In response to this argument, Internet bloggers and other free speech advocates may counter that their speech expresses their views about the credibility of public health threats or the effectiveness of the government’s response and is thus entitled to the constitutional armor typically provided for political speech. In addition, extreme proponents of this view may emphasize the need to preserve individual freedoms even if public health is compromised or negatively impacted, arguing that to infringe such freedoms is almost never necessary or worthwhile.

The government should then counter that freedom of speech, in addition to being limited by content when the speech endangers the public, is limited by the balancing of individual and public interests. Specifically, the government should argue that it is entitled to regulate freedom of speech when such regulation will serve a substantial state interest and such regulation is no more restrictive than necessary to further that interest. In other words, the individual right to free speech is limited by state interests in protecting public health during an emergency.

Individual liberties are often implicated in public health law. The Supreme Court has consistently recognized that

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156 See, e.g., Zieper v. Metzinger, 474 F.3d 60, 63 (2d Cir. 2007); Planned Parenthood of Columbia/Willamette, Inc. v. Am. Coalition of Life Activists, 290 F.3d 1058, 1093 (9th Cir. 2002); see also Hiller & Cohen, supra note 110, at 50.

157 See Annas, supra note 36, at 321. Annas also cautions against treating Americans as enemies rather than as people in need of protection: “Ignoring or marginalizing human and constitutional rights, and treating Americans themselves as suspects or actual enemies, is counterproductive and dangerous in itself. . . .” Id. Some experts contend that the public has a right to know the details of a crisis regardless of the potential panic that might ensue. Such experts claim that information should only be withheld on specific grounds, such as in the event that an undercover official’s identity would be revealed and such individual’s safety compromised. Josh Meyer, Media Responsibility During a Terrorist Attack, 38 CASE W. RES. J. INT’L L. 581, 585-86 (2006-2007).

158 A regulation furthering substantial governmental interests can trump protection of individual freedoms if limits placed on individual freedoms are no more restricting than necessary. United States v. O’Brien, 391 U.S. 367, 377 (1968).

159 Id. ( “[A] government regulation is sufficiently justified if it is within the constitutional power of the Government; if it furthers an important or substantial governmental interest; if the governmental interest is unrelated to the suppression of free expression; and if the incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.”).

160 For example, the public health interest of protecting a population against disease outbreak may outweigh an individual preference to not be vaccinated. See Jacobson v. Massachusetts, 197 U.S. 11, 29 (1905); see also Roe v. Wade, 410 U.S. 113,
individual rights are not absolute and must be weighed against the need to protect the public. \textsuperscript{161} In \textit{Jacobson v. Massachusetts}, the Supreme Court explained that liberty may be limited for the common good of public safety. \textsuperscript{162} Public health law has built upon this compromise between individual interests and public health, \textsuperscript{163} and the Supreme Court has continued to balance individual interests and the common good in more recent cases. For example, in \textit{Roe v. Wade} the Court cited \textit{Jacobson} for the proposition that individual rights are limited by state interests in protecting health. \textsuperscript{164}

In the context of an emergency, it is sometimes necessary to regulate speech that puts public safety at risk. \textsuperscript{165} Speech that contradicts authorities’ safety messages may endanger public welfare by confusing the public or by rousing public opposition to necessary, protective measures taken during a public health emergency. \textsuperscript{166} Correcting false information and ensuring the dissemination of accurate information by monitoring Internet content would further the state interest of responding successfully to an emergency and keeping the public safe. \textsuperscript{167} Ensuring that information on the Internet is accurate may also improve agencies' understanding of the crisis and their communication with one another. \textsuperscript{168}

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150 (1973) (identifying the state’s interest in ensuring safety of the mother and protecting the life of the fetus).

\textsuperscript{161} \textit{Jacobson}, 197 U.S. at 29 (“[I]n every well-ordered society charged with the duty of conserving the safety of its members the rights of the individual in respect of his liberty may at times, under the pressure of great dangers, be subjected to . . . restraint . . . as the safety of the general public may demand.”). For an example of a state court following suit, see \textit{Hyatt v. Commonwealth}, 72 S.W.3d 566, 574 (Ky. 2002) (allowing publication of information on Internet sex offender registries for the purpose of protecting the public and noting that “neither the federal nor the state constitution prohibited the disclosure of such information when the public health or safety is involved”). In 2000, the Kentucky General Assembly also extended its notification requirement of sex offenders to include Internet sites that posted the photographs and addresses of convicted sex offenders. \textit{See Hyatt}, 72 S.W.3d at 570.

\textsuperscript{162} \textit{Jacobson}, 197 U.S. at 29. In \textit{Jacobson}, the Supreme Court upheld a statute allowing the state board of health to require vaccination when the plaintiff failed to establish that he was not fit for vaccination. \textit{Id.} at 36-37.

\textsuperscript{163} WING ET AL., \textit{supra} note 1, at 59.

\textsuperscript{164} \textit{Roe}, 410 U.S. at 154-55.

\textsuperscript{165} \textit{See Hiller & Cohen, supra} note 110, at 50; \textit{see also} United States v. Sutcliffe, 505 F.3d 944, 961 (9th Cir. 2007) (explaining that bodily threats defendant made over the Internet were not protected by the First Amendment because they were explicit and displayed defendant’s intent to harm others).

\textsuperscript{166} \textit{See}, e.g., \textit{Zieper}, 474 F.3d at 70 (granting qualified immunity to federal agents who requested a website administrator to remove content that could cause a riot).

\textsuperscript{167} \textit{See supra} Part III.B.2.

\textsuperscript{168} \textit{See supra} Part III.B.
individuals understand how agencies are responding to the emergency,\textsuperscript{169} which in turn would help establish trust in state and federal government, a crucial factor to combating chaos during an emergency.\textsuperscript{170} In the context of an infectious disease outbreak, consistent information from all media sources would educate citizens about what preventive steps to take, which would consequently slow or even stop the spread of the disease.\textsuperscript{171}

In addition to highlighting limitations to freedom of speech, the government could justify interference with information dissemination by arguing that while regulation of content itself may be controversial, regulation of the way in which it is delivered is permissible.\textsuperscript{172} Under the proposed legislation, speech would only be curtailed within the context of a public health emergency. Furthermore, unlike China’s actions during the SARS outbreak, the regulations would not completely silence websites or Internet factions.\textsuperscript{173} Instead, interference would be minimal, with an aim to clarify or correct false or misleading information concerning an emergency.\textsuperscript{174} Clarifying information over the Internet is much less restrictive than banning websites from sharing information.\textsuperscript{175}


\textsuperscript{170} Joseph Barbera et al., Large-Scale Quarantine Following Biological Terrorism in the United States: Scientific Examination, Logistic and Legal Limits, and Possible Consequences, 286 JAMA 2711, 2716 (2001) (“A well-informed public that perceives health officials as knowledgeable and reliable is more likely to voluntarily comply with actions recommended to diminish the spread of the disease. Effective information dissemination would work to suppress rumors and anxiety and enlist community support.”). Providing detailed guidance such as how to behave in the aftermath of a public health emergency will ensure much-needed public confidence during a time of heightened attention from the media. Id.

\textsuperscript{171} See, e.g., id. (seeking to “inform[] the public through multiple appropriate channels of the nature of the infectious disease and the scope of the outbreak, provide[] behavioral guidelines to help minimize spread of illness, and convey[] details about how to get prompt access to effective treatment”).

\textsuperscript{172} See Hiller & Cohen, supra note 110, at 67.

\textsuperscript{173} See supra Parts II.C, III.B.1. See generally Farrell, supra note 63 (providing an overview of China’s response to the SARS outbreak and an in-depth discussion of China’s Internet regulations).

\textsuperscript{174} See supra Part III.B.2.

\textsuperscript{175} In fact, states should encourage websites to share information about emergencies within proper guidelines. After all, the media is frequently the best source of information for the authorities working on the problem, and the Internet can be used as yet another channel through which the media can disseminate information. See supra Part III.B.2; see also Meyer, supra note 157, at 582-83.
In addition to defending the legislation against First Amendment challenges by arguing that public safety interests outweigh individual interests in freedom of speech in the context of a public health emergency, the government could also use various political tools to ease concerns that the legislation may infringe individual freedoms.\textsuperscript{176} For example, the legislation could incorporate procedural due process measures\textsuperscript{177} to gain the public’s trust by demonstrating the government’s respect for individual rights.\textsuperscript{178} Specifically, if states impose regulations that restrict websites’ content or allow authorities to interfere with the content of such websites, such regulations should also provide a process by which the site administrator is notified of the purposes of imposed restrictions. The regulations should provide an opportunity for the site administrator and other interest groups to seek judicial review of restrictions placed on the site. The legislation should also place constraints on authorities to prevent overreaching into the realm of individual liberties.\textsuperscript{179}

2. Federalism Concerns

While states can regulate commerce occurring within their own territories, they must refrain from interfering with the federal government’s domain of interstate commerce.\textsuperscript{180} The Dormant Commerce Clause bars states from regulating interstate commerce “even in the absence of preemptive federal legislation under the commerce clause.”\textsuperscript{181} If state regulation of the Internet significantly burdens interstate commerce, it

\textsuperscript{176} States should make use of “the democratic process, checks and balances, clear criteria for decision-making, and judicial procedures designed to control the abuse of power by governmental agencies.” Gostin, supra note 7, at 1161.

\textsuperscript{177} Procedural due process provides litigants with notice of the proceedings and an opportunity to be heard. Murray’s Lessee v. Hoboken Land & Improvement Co., 59 U.S. 272, 280 (1856) (explaining that due process includes “regular allegations, opportunity to answer, and a trial according to some settled course of judicial proceedings”); see also KATHLEEN M. SULLIVAN & GERALD GUNTHER, CONSTITUTIONAL LAW 468 (15th ed. 2004) (“[C]oncepts of notice and hearing have been at the core of due process from the beginning.”).

\textsuperscript{178} Gostin, supra note 7, at 1166.

\textsuperscript{179} Id. at 1165 (recommending that “clear criteria” be required for public health agencies’ exercise of power).

\textsuperscript{180} United States v. Lopez, 514 U.S. 549, 558-59 (1995) (identifying three categories that Congress can regulate when exercising its commerce power: the use of channels of interstate commerce, the instrumentalities of interstate commerce, and activities substantially related to interstate commerce); see also HILLER & COHEN, supra note 110, at 12.

\textsuperscript{181} SULLIVAN & GUNTHER, supra note 177, at 111. See supra Part III.A.
would likely be unconstitutional. Since almost any regulation of the Internet would burden interstate commerce, the power to write and enforce Internet regulations can be expected to lie within the realm of the federal government’s exclusive jurisdiction. Consequently, parties to cases involving Internet regulations often assert arguments that the Internet functions as a tool for interstate commerce. Indeed, courts have found that state laws regulating individuals’ communication over the Internet violate the Commerce Clause of the Constitution because they regulate citizens in several states. In American Library Association v. Pataki, the Southern District Court of New York expressed concern that allowing a New York law to control certain Internet communication would unnecessarily burden interstate commerce and would result in the state controlling acts that were not occurring within its jurisdiction. The court opined that regulation of the Internet should be delegated to federal control because state regulation would subject users to inconsistent laws. Nevertheless, other courts have upheld the constitutionality of state Internet regulations, finding that the burdens they place on interstate commerce.

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182 See PSINET, Inc. v. Chapman, 167 F. Supp. 2d 878, 880, 891 (W.D. Va. 2001) (statute regulating distribution of obscene materials to minors placed burden on interstate commerce because website administrators could not “limit access to online materials by geographic location”); Cyberspace Comms’n, Inc. v. Engler, 142 F. Supp. 2d 827, 830-31 (E.D. Mich. 2001) (holding that a statute prohibiting dissemination of obscene materials to minors exceeded the state’s authority because it attempted to regulate commerce occurring beyond its borders); Am. Library Ass’n v. Pataki, 969 F. Supp. 160, 169 (S.D.N.Y. 1997) (New York statute prohibiting Internet users from sending explicit images to minors via e-mail unconstitutionally subjected citizens of other states to New York law and placed a burden on interstate commerce that outweighed the local interest in protecting minors).

183 See Am. Library Ass’n, 969 F. Supp. at 173 (“The inescapable conclusion is that the Internet represents an instrument of interstate commerce, albeit an innovative one; the novelty of the technology should not obscure the fact that regulation of the Internet impels traditional Commerce Clause considerations.”). Given that the Internet does not have any geographic boundaries, a user's actions might subject that individual to suit in other jurisdictions. See Sableman, supra note 1, at 240 (giving the example of an Internet advertiser, who may be subject to suit wherever the Internet is available).


185 Am. Libraries Ass’n, 969 F. Supp. at 181 (advising that “[r]egulation [of the Internet] by any single state can only result in chaos, because at least some states will likely enact laws subjecting Internet users to conflicting obligations”).

186 Id. at 169.

187 Id. at 181.
commerce are insignificant when viewed in light of the local interests that such statutes serve. Therefore, if the legislation is challenged on Dormant Commerce Clause grounds, the government should argue that the burden placed on interstate commerce is insignificant considering that the legislation would only impose regulations in the context of a public health emergency and for the purpose of protecting public welfare.

3. Policy Conflicts

Yet another objection to restricting Internet content is that the United States has demonstrated an unwavering commitment to the free flow of information over the Internet. Proposed legislation, such as the Global Internet Freedom Act (“GIFA”) and the Global Online Freedom Act (“GOFA”), demonstrates our nation’s commitment to maintaining freedom of speech over the Internet. The GIFA includes congressional findings that protection of speech over the Internet is crucial to combating repression and to preserving fundamental rights of free societies. GOFA findings similarly associate speech over the Internet with basic human rights. In fact, the United States already limits interception of information communicated over the Internet through legislation and law enforcement. On the other hand, the goals identified in the National Strategy to Secure Cyberspace (“NSSC”) declare that measures must be taken to increase the security of the information

188 See, e.g., People v. Hsu, 99 Cal. Rptr. 2d 184, 190-91 (Cal. Ct. App. 2000) (holding that a statute furthering a state’s compelling interest in protecting minors from obscene materials did not place a significant burden on interstate commerce and noting that “[s]tatutes affecting public safety carry a strong presumption of validity”).

189 See, e.g., Shields, supra note 149, § 2 (“Freedom of speech and of the press rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.”).


192 Global Internet Freedom Act § 2.

193 Global Online Freedom Act of 2007 § 2 (acknowledging that free speech over the Internet is protected in the Universal Declaration of Human Rights).

194 For example, the Electronic Communications Privacy Act limits the ability to monitor or intercept communications using electronics and requires authorization before anyone can intercept or access messages. HILLER & COHEN, supra note 110, at 95. In addition, law enforcement must obtain subpoenas or warrants in order to search either stored or “real-time” electronic information. Id. at 167.
communicated over the Internet. This strategy suggests that the United States is not completely averse to Internet regulations that aim to improve public safety.

CONCLUSION

Federal, state, and local public health statutes should be revised to reflect the communication capabilities of modern society. Unless legislation accounts for the impact of the Internet in emergency response plans, efforts to properly inform the public and lead an organized response to a public health emergency will be incomplete and largely ineffective. Emergency response statutes must provide public health authorities with specific guidance for handling Internet communication. In drafting or reforming emergency response statutes, legislators should incorporate plans to combat the Internet’s potential for spreading false or misleading information that interferes with communication to the public. Regulations that acknowledge this threat and provide ways to monitor misleading or incorrect online information will help avoid confusion, control panic, and yield more efficient responses to public health emergencies. Regulations that establish specific means of communicating to the public and plan for a way to keep information consistent, accurate, reliable, and widely available over the Internet will lead to greater success in responding to public health emergencies and keeping the public safe.

Laurie N. Stempler

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195 THE NATIONAL STRATEGY TO SECURE CYBERSPACE x (Feb. 2003), http://www.whitehouse.gov/ncipc/cyberspace_strategy.pdf (stating as one of the goals for cybersecurity response to “improve and enhance public-private information sharing involving cyber attacks, threats, and vulnerabilities”). The government has not made much progress on the NSSC, and the need to ensure that communications over the Internet are reliable remains. Hoar, supra note 68, at 6 (“Although the original architecture of the Internet was appropriate for its initial purposes, it lacks the necessary integrity for secure commerce and communication.”).

196 In fact, the United States would not be alone in embracing some form of Internet regulation, for such regulation is widespread despite the fact that it involves some curtailment of individual freedoms. See Farrell, supra note 63, at 577 (“Nearly every single state, even those with an apparently strong commitment to democratic principals and civil liberties, filters or censors access to Internet content in some way.”).

† J.D. Candidate, Brooklyn Law School, 2009; B.A., Wellesley College, 2003. The author thanks her family for providing unwavering support and encouragement. The author also thanks Professor Karen Porter for her invaluable feedback and the members of the Brooklyn Law Review for their time and tremendous effort.