

CITIZEN PARTICIPATION IN AN INTERNET ERA

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Citizen participation in government has relatively recent roots. For centuries, Europe was dominated by monarchs who offered ordinary citizens limited opportunities to influence, governmental decisionmaking. Indeed, some monarchs claimed to have been placed on their thrones by God, and also claimed that their actions and decrees were manifestations of God's will.¹ Of course, if Kings are "divinely inspired," and carrying out God's will through their actions, it is difficult to argue that ordinary people can or should be allowed to question or criticize what they have done, or what God has purportedly done through them.

With the dawning of the Enlightenment, the Divine Right of kings came under intense scrutiny, and was ultimately rejected.² The right of hereditary succession was also questioned.³ Over time, democratic principles began to take root as a much more legitimate basis for the exercise of governmental authority. Illustrative is the U.S. Declaration of Independence.⁴ In an

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¹ See *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 96 (1996) (noting that "centuries ago" there was a "belief that the monarch served by divine right").

² See THOMAS PAINE, COMMON SENSE 6 (1776) (Dover ed. 1997) ("There is something exceedingly ridiculous in the composition of monarchy; it first excludes a man from the means of information, yet empowers him to act in cases where the highest judgment is required."). Thomas Paine, who was British born, but who was in the American colonies during the Revolutionary period and who wrote extensively, expressed serious reservations regarding the British monarchy's claim to rule by Divine Right: "no man in his senses can say that their claim (the British monarchs' claim to the throne) under William the Conqueror is a very honorable one. A French bastard landing with an armed banditti, and establishing himself king of England against the consent of the natives, is in plain terms a very paltry rascally original. – It certainly hath no divinity in it." *Id.*, at 13-14.

³ Even if the British monarchy had been legitimately established, Paine had grave reservations regarding the desirability of granting the monarchy the right of hereditary succession: it "is an insult and an imposition on posterity. For all men being originally equals, no *one* by *birth* could have a right to set up his own family in perpetual preference to all others for ever. . . . Most wise men, in their private sentiments, have ever treated hereditary right with contempt; yet it is one of those evils, when once established is not easily removed . . ." *Id.* at 12-13.

⁴ U.S. DECLARATION OF INDEPENDENCE (July 4, 1776).

effort to justify their decision to declare their independence from England and the English king, the Framers of the Declaration implicitly rejected the concept of Divine Right,⁵ and staked out a democratically-based approach to government: “Governments are instituted among Men, deriving their just powers from the consent of the governed.”⁶ Of course, most European nations evolved towards democratic principles over time.

Having created a document that contained democratic principles, the drafters of the Declaration then set out their reasons for revolting against the English king. They began by discussing the purposes of government, including the idea that citizens possess inalienable rights:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.⁷

The Declaration then went on to articulate a series of alleged abuses by the British king (some of which had been committed by the British Parliament rather than by the king),⁸ and sought to

⁵ See *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 96 (1996) (noting that “centuries ago” there was a “belief that the monarch served by divine right”).

⁶ *Id.*

⁷ DECLARATION OF INDEPENDENCE, *supra*.

⁸ *Id.* (“Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world. He has refused his Assent to Laws, the most wholesome and necessary for the public good. He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them. He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only. . . He has dissolved Representative Houses repeatedly, for opposing with manly firmness of his invasions on the rights of the people. . .”).

justify the decision to sever ties with England.⁹

Despite the sweeping language of the Declaration of Independence, the United States never fully embraced or implemented democratic principles. Indeed, many in the founding generation were distrustful of governmental power.¹⁰ Illustrative were the views of Thomas Paine who argued that, “Society in every state is a blessing, but government even in its best state is but a necessary evil; in its worst state an intolerable one.”¹¹ There may have been two separate and distinct reasons for citizen distrust of government. First, the new Americans, having just revolted against the British empire because of perceived abuses, were understandably fearful of powerful governments.¹² Second, many of the new Americans had emigrated to the American colonies in order to escape religious persecution in Europe.¹³ In particular, they were seeking to escape “established” religions that required everyone to support those religions, and aggressively

⁹ *Id.* (“When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.”).

¹⁰ *See* RALPH KETCHAM, *THE ANTI-FEDERALIST PAPERS AND THE CONSTITUTIONAL CONVENTION DEBATES: THE CLASHES AND COMPROMISES THAT BIRTH TO OUR GOVERNMENT* xv (1986) (“Uncertain that any government over so vast a domain as the United States could be controlled by the people, the anti-federalists saw in the enlarged powers of the central government only the familiar threats to the rights and liberties of the people.”).

¹¹ *See* Paine, *supra* note 2, at 3 (“Society in every state is a blessing, but government even in its best state is but a necessary evil; in its worst state an intolerable one; for when we suffer, or are exposed to the same miseries by a *government*, which we might expect in a country *without government*, our calamity is heightened by reflecting that we furnish the means by which we suffer.”).

¹² *See, e.g.*, U.S. Declaration of Independence (July 4, 1776) (listing grievances against the English King (although, in fact, some of the offenses had been committed by the British Parliament rather than the King)).

¹³ *See Everson v. Board of Education*, 330 U.S. 1, 8-9 (1947) (“A large proportion of the early settlers of this country came here from Europe to escape the bondage of laws which compelled them to support and attend government favored churches. Catholics had persecuted Protestants, Protestants had persecuted Catholics, Protestant sects had persecuted other Protestant sects, Catholics of one shade of belief had persecuted Catholics of another shade of belief, and all of these had from time to time persecuted Jews.”).

persecuted those who tried to practice other religions.¹⁴ As a result, even though the Declaration made clear that the power to govern flows from the “consent of the governed,” the early Americans did not unequivocally embrace democracy, and instead sought to limit and constrain governmental power. In particular, , the Framers of the U.S. Constitution embraced the ideas of Baron de Montesquieu, the French philosopher, who is credited with articulating the doctrine of separation of powers, and they used that doctrine as a way to limit governmental authority.¹⁵ They also provided that some governmental officials (e.g., the President and the U.S. Senate) would not be directly elected.

This article discusses how, in the context of the U.S. governmental system, the Internet has enhanced citizen participation in governmental processes. As we shall see, the Internet has enabled so-called “sousveillance” of the government, given citizens the ability to actively participate in governmental decisionmaking processes, and provided them with the means to influence and promote change in the political process.

I. DEMOCRATIC DIFFICULTIES

An effective and functioning democracy contains two essential elements. First, a free and democratic society must be premised on the right to freedom of expression.¹⁶ If the citizenry is free to decide who they will vote for, and which ideas or propositions to support, promote or oppose, they must be free to communicate their ideas with each other, and to attempt to persuade others to support their positions.¹⁷ Second, the people must have access to information regarding the functioning of government. It is difficult to have meaningful democratic participation, or democratic accountability, when the government conceals information from the public, and starves the public of information regarding its functioning.¹⁸

¹⁴ *Id.*

¹⁵ BARON DE MONTESQUIEU, *THE SPIRIT OF LAWS* 151-152 (Cosimo Edition 2011).

¹⁶ See C. Edwin Baker, *Scope of the First Amendment Freedom of Speech*, 25 U.C.L.A. L. REV. 964 (1978); Robert H. Bork, *Neutral Principles and Some First Amendment Problems*, 47 IND. L.J. 1 (1971); Thomas I. Emerson, *Toward a General Theory of the First Amendment*, 72 YALE L.J. 877 (1963); Alexander Meiklejohn, *The First Amendment as an Absolute*, 1961 S. CT. REV. 245; RUSSELL L. WEAVER, *UNDERSTANDING THE FIRST AMENDMENT* 10-13 (5th ed. 2014).

¹⁷ *See id.*

¹⁸ See John M. Ackerman & Irma E. Sandoval-Ballesteros, *The Global Explosion of Freedom of Information Laws*, 58 ADMIN. L. REV. 85, 89 (2006) (“The current rules on open government are for the most part mainly a question of public hygiene. This regulation is intended to increase the transparency of public administration, with a view to better democratic control and social accountability of government.”); Katherine McFate, *Keynote Address: The Power of*

In the United States, citizens have always had the ability to participate in government, but their ability to do so has been limited by various considerations. For much of human history, the U.S. government has not been particularly transparent or forthcoming with information. Indeed, until the 1930s in the United States, governmental officials could adopt rules and regulations without consulting with the citizenry. They were not required to give citizens notice of what they were thinking about doing, or a chance to comment or provide input on the proposed action. Only with passage of the Administrative Procedure Act (APA) in the 1930s could the citizenry access somewhat greater information, and only then did it have an increased right to participate in governmental processes.¹⁹ Under the APA's informal rulemaking processes, agencies were required to give people "notice" of proposed regulations, and an opportunity to "comment" thereon.²⁰ When agencies created "formal" rules, they were required to conduct trial-type proceedings.²¹

Historically, communication between citizens could also be difficult.²² Of course, throughout history, ordinary people could find it relatively difficult to communicate with each other. Prior to the 1400s, speech technology was relatively limited, and communication was necessarily slow, difficult and inefficient. A Roman Emperor might wait days or weeks to hear the outcome of a critical battle fought in a distant land. Without telephones, telegraphs or the Internet, the "news" had to be transported to Rome by foot, chariot, horseback or sea.

Ancient methods of communication made it particularly difficult for ordinary individuals to engage in speech or to convey political information between themselves. Ordinary people could talk to others, and communicate, by giving speeches, but oral communication was inherently limiting because it could only reach small numbers or groups of people. People could also draft and circulate letters, announcements and petitions. However, since there was no special technology (other than quill pens and parchment) for preparing or reproducing writings, early written documents had to be laboriously prepared by hand. Moreover, because distribution methods were more limited, it was difficult for ordinary people to mass disseminate writings once created. As a result, mass communication was understandably difficult (if not virtually

an Informed Public, 38 VT. L. REV. 809, 825 ("Access to information is an important tool of democratic accountability. Governments need information to provide citizens with protection from harmful products and practices. Citizens need to understand what their government is doing in their name.").

¹⁹ 5 U.S.C. § 553, 556-557.

²⁰ 5 U.S.C. § 553.

²¹ 5. U.S.C. § 556-557.

²² See RUSSELL L. WEAVER, FROM GUTENBERG TO THE INTERNET: FREE SPEECH, ADVANCING TECHNOLOGY AND THE IMPLICATIONS FOR DEMOCRACY (2013).

impossible) for the average person.

The first major breakthrough in speech technology occurred in the Fifteenth Century when Johannes Gutenberg invented the first printing press. Essentially, Gutenberg hit upon the idea of creating movable type that could be used to relatively quickly (for the time) compose pages for printing.²³ Once composed, these type-set pages could be inserted into a printing press and used to mass produce copies of that page.

Gutenberg's invention was "transformative." Prior to his invention, most books were created by monks using laborious hand-written methods. Since monks usually wrote in Latin, and created primarily religious texts, their works were not widely accessible to (or widely accessed by) the masses. Moreover, monks did little to assist ordinary individuals in conveying their ideas (political or otherwise). The printing press revolutionized communication because it allowed non-clergy to mass produce written works, in their own languages, and ultimately to communicate much more easily with their fellow citizens. The ability to mass create written works was ultimately credited by some with leading to the Renaissance, the Scientific Revolution, and the Protestant Reformation.²⁴ By 1499, some 2,500 European cities had printing presses, and some 15 million books (representing some thirty thousand book titles) had been

²³ The printing press changed the equation by making it possible for individuals to mass produce written works. See Rogelio Lasso, *From the Paper Chase to the Digital Chase: Technology and the Challenge of Teaching 21st Century Law Students*, 43 SANTA CLARA L. REV. 1, 4 n.2 ("Printing changed every aspect of the human condition--from thinking, learning, and language, to science, religion, and government." "The 17th century became known as 'the century of genius' in large part due to the explosion of creativity and new ideas fueled by printing. Creativity is often the result of a combination of intellectual activities. For example, reading two books on separate topics and combining their themes in one mind produces a creative interaction. Increased output of printed works led first to the combination of old ideas, and later to the creation of entirely new systems of thought."); Peter Linzer, *From the Gutenberg Bible to Net Neutrality – How Technology Makes Law and Why English Majors Need to Understand It*, 39 MCGEORGE L. REV. 1, 4-5 (2008) ("Some time around 1450, building on existing machines, Johannes Gutenberg invented the printing press and movable type. Because of the printing press, mass communication became more than talking to a crowd or a church congregation.").

²⁴ See George Paul & Jason Baron, *Information Inflation: Can the Legal System Adapt?*, 13 RICH. J. L. & TECH. 1, 8 (2007) ("There has been only one transformative advance in the original writing technology. Circa 1450 Johannes Gutenberg invented the movable type printing press, which dramatically lowered the cost of producing written records. The printing press allowed mass production of information and thus contributed to the Renaissance, the Scientific Revolution, and the Protestant Reformation.").

printed.²⁵

As dramatic as the development of the printing press might have been, the early presses were exceedingly slow and inefficient compared to the technologies that followed. Moreover, the printing press did not necessarily enable ordinary individuals to communicate with each other. In the broad sweep of history, as technology has improved and advanced, private actors were able to limit or control the ability of ordinary individuals to communicate with each other. Even though Gutenberg's invention of the printing press had a profound impact on communication, it too was subject to gatekeepers. Even though the press had revolutionary potential, it was expensive to create printed works.²⁶ Moreover, few people had enough money to buy or operate their own operate printing presses, and the English government affirmatively limited the number of presses that were available. Although individuals could pay printing press owners to print their ideas (assuming, of course, that licensing restrictions did not prevent the publication), the cost could sometimes be high.²⁷ Even individuals who could afford to pay printing costs confronted substantial distribution costs that were beyond the means of ordinary individuals.²⁸ As a result, even though the press revolutionized technology, the elite (*e.g.*, governmental officials, newspapers, universities and the rich) were the primary beneficiaries of the new technologies, and were the ones who were able to use the printing press to disseminate their ideas.²⁹

²⁵ Joseph Karl Grant, *Shattering and Moving Beyond the Gutenberg Paradigm: The Dawn of the Electronic Will*, 42 U. MICH. J. L. REFORM 105, 111-112 (2008).

²⁶ See Peter K. Yu, *Of Monks, Medieval Scribes and Middlemen*, 2006 Mich. St. L. Rev. 1, 13.

²⁷ See Adrienne J. Marsh, *Fair Use and New Technology: The Appropriate Standards to Apply*, 5 CARDOZO L. REV. 635, 635 n.1 (1984) (concluding that Gutenberg's invention of the printing press "brought books and the written word to the masses.").

²⁸ See Markenzy Lapointe, *Universal Service and the Digital Revolution: Beyond the Telecommunications Act of 1996*, 25 RUTGERS COMPUTER & TECH. L.J. 61, 80 (1999) ("When Gutenberg developed the first moveable printing press and published his famous Bible in 1445, a communications revolution was greatly anticipated. However, this momentous invention failed to immediately ignite the expected information revolution. For centuries, books were available primarily to the rich, the academics, and the clerics. It was not until the creation of institutions like public libraries, which made books more accessible and the technological enhancement of the printing press, which allowed the production of books to become more affordable, that a true revolution finally began to take place.").

²⁹ See Peter K. Yu, *Of Monks, Medieval Scribes and Middlemen*, 2006 Mich. St. L. Rev. 1, 11 ("The initial demand for printed books came from universities, the clergy, monasteries and convents, the Civil Service, the feudal nobility (and their ladies), lawyers and physicians, and

Ordinary individuals might be able to disseminate their ideas or opinions if they could persuade the owners or editors of newspapers or magazines to publish them (e.g., some individuals might write op-ed pieces or persuasive articles for newspapers). However, the editors (and reporters) of newspapers served as gatekeepers who could choose whether or not to publish the ideas of other people, and ordinary individuals did not have assured access to the print medium in disseminating their ideas. If the gatekeepers of the print media refused a publication request, the individual would be left with only more primitive methods of communication. Of course, the difficulty for the average individual is that gatekeepers were sometimes interested in pushing their preferred political positions, and used their newspapers or magazines to push those views, to suppress views with which they disagreed.

The next major advance in speech technology came in the nineteenth and twentieth centuries with the development of electricity which led to invention of the telegraph, and later to the development of broadcast technology, including both radio and television. As noted, all three of these technologies were revolutionary in terms of their speech potential. All of these technologies dramatically expanded communication possibilities, and made it possible to quickly convey information over long distances.³⁰ With the development of these technologies, it became possible to send images and content around the world very quickly, sometimes almost instantaneously. As a result, it was possible to see and hear images of the First World War and the Second World War, if not in real time, without having to wait for months.

Radio and broadcast media were also accompanied by private gatekeepers, and all three technologies had limited value for average people who could passively receive media generated images, but who could not easily generate their own content. Radio and television, in particular, suffered from this problem. Because of a limited number of airwaves, as well as because of the sizeable expense necessary to acquire, establish and operate a radio or television station, few individuals could hold broadcast licenses.³¹ As a result, a non-licensee's ability to access the air waves through an op-ed piece, or even through an advertisement, was subject to the discretion of those who did hold licenses.³² Although some broadcasters allowed private individuals to air op-ed pieces, just as some newspapers published op-eds or letters to the editor, an individual's ability to communicate by air or in print has nonetheless been subject to gatekeepers: the newspaper or broadcaster's editor or producer who could decide whether to permit the individual

schoolboys and their teachers. There was also "a wide market for prayer-books, missals, almanacs, calendars, prognostications, broadsides, and other printed matter." In fact, the demand and supply for printed materials varied considerably from one geographical region to another.").

³⁰ See *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969).

³¹ See *id.* (commenting on the scarcity of broadcast licenses).

³² See *Columbia Broadcasting System, Inc. v. Democratic National Committee*, 412 U.S. 94 (1973).

to air his/her views.

Given the existence of media gatekeepers, the flow of information through broadcast outlets has historically been limited by the views of publishers (although, as we shall see, even that is changing). At various points in history, broadcasters have stridently attempted to use their media to attempt to influence public opinion, in much the same way that newspaper owners and editors have done,³³ and they have not served as honest brokers of information and news. On the contrary, some have used their broadcast ability to air or discuss issues only in ways that comport with their political or social beliefs. Of course, in a free society, the broadcast and newsprint media can and should have journalistic license and discretion, and therefore should have freedom to report in the way they deem most appropriate. The point is that, during most of the Twentieth Century, the average individual had few affordable or guaranteed means of mass communication. As before the invention of the printing press, individuals could give speeches, and could draft arguments and position papers. Using typewriters and crude word processors as they became available, as well as copy machines, it was easier for individuals to reach more people, but the ability to reach others was limited by practical and technical considerations such as distribution costs and logistical difficulties. Individuals could also use shortwave radio technology, but shortwave suffered from a number of limitations that limited its use and effectiveness.

During the last quarter century, the nature of speech technology has changed dramatically. For one thing, a variety of new media options have developed, including cable television,³⁴ and satellite radio and television. Cable and satellite technologies dramatically increased the number of options available to viewers and listeners, sometimes increasing station availability by hundreds of times. Moreover, cable television has gained an increasingly large market share, now approaching fifty percent.³⁵ But even cable communication has been limited to the rich and the powerful, or those who they allow to use their technologies. As important as the development of cable and satellite mediums might have been, they did not dramatically increase the ability of average individuals to access the media or participate in freedom of expression. Even though some cable companies established local access channels,³⁶ the overwhelming majority of the hundreds of cable and satellite channels were (and remain) controlled by media

³³ See Jerome A. Barron, *Access to the Media – 1967 to 2007 and Beyond: A Symposium Honoring Jerome A. Barron’s Path-Breaking Article “Access Reconsidered,”* 76 GEO. W. L. REV. 826, 832 (2008).

³⁴ See *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622 (1994) (discussing the Cable Television Consumer Protection and Competition Act of 1992).

³⁵ See Brian Stelter, *Cable Networks Trying to Build on Their Gains in Ratings*, N.Y. TIMES, May 26, 2008.

³⁶ See John J. O’Connor, *How Much Access Have We to Public Access?; Television*, N.Y. TIMES, June 3, 1973.

conglomerates.

II. THE INTERNET AND CITIZEN PARTICIPATION IN GOVERNMENT

The real revolution in speech technology resulted from two other developments. The first major breakthrough involved the invention of the personal computer (PC) because it allowed individuals to quickly and easily produce high quality printed content. No longer did an individual need to invest in an expensive printing press, or pay the owners of printing presses, in order to create printed documents. Indeed, as PCs became more sophisticated, it became possible for the average individual to mass produce documents with high quality graphics.³⁷ The second breakthrough involved the development of the Internet which allowed individuals to quickly and easily distribute information, around the world, with the click of a computer mouse.

The Internet has led to a societal revolution, including a dramatic reshaping of society. Moreover, it has created great possibilities for active citizen participation in the mechanisms of government. Indeed, in the history of mankind, the potential for participation is almost unprecedented. While the shift from monarchy to “the consent of the governed” marked a dramatic shift in the basis for government, the Internet creates the very real possibility that the “consent of the governed” will actually come to fruition.

A. “SOUSVEILLANCE” OF GOVERNMENT

Professor William Gilles is a strong advocate of the idea of “sousveillance” – the idea that members of society can observe and attempt to influence the actions of governmental

³⁷ See George Paul & Jason Baron, *Information Inflation: Can the Legal System Adapt?*, 13 Rich. J. L. & Tech. 1, 9 (2007):

[Q]uite recently there has been an evolutionary burst in writing technology - a jagged punctuation on a 50 century-long sine wave. A quick succession of advances clustered or synced together, to emerge into a radically new and more powerful writing technology. These include digitization; real time computing; the microprocessor; the personal computer, e-mail; local and wide-area networks leading to the Internet; the evolution of software, which has "locked in" seamless editing as an almost universal function; the World Wide Web; and of course people and their technique. These constituents have swirled into an information complex, now known as the "Information Ecosystem." In such a system, the whole exhibits an emergent behavior that is much more than the sum of the parts. Critically for law, such systems cannot be understood or explained by any one person. As a result, writing has now grown into something akin to a new "form of life." Because of its long-standing stasis and the importance of writing as a global technology, such a development may legitimately be said to herald a new phase of civilization.

officials.³⁸ He describes sousveillance as involving the “increasing tendency of the citizenry to watch, gaze, look and monitor, from the bottom, the practices of their governments, or even more widely, everyone’s action thanks to the democratization of ICT tools.”³⁹ In the modern era, sousveillance is possible. As one commentator noted, “Today, one environmental advocate with a 56k modem and a \$20 per month Internet account has more power to acquire information, to communicate, and to participate than a whole staff of people did ten years ago.”⁴⁰

Although sousveillance is possible in many different areas of the law, the environmental area illustrates how the concept works. There are a number of websites, including governmental websites, that allow the public to access environmental information.⁴¹ For example, the United States Environmental Protection Agency (EPA) maintains a website entitled “Envirofacts”⁴² that is designed to provide “multi year information about stationary sources of air pollution; large-quantity generators of hazardous wastes; treatment, storage and disposal facilities; Superfund sites; facilities required to develop Risk Management Plans under the Clean Air Act; facilities that submit Toxic Release Inventory reports characterizing multimedia releases of toxic chemicals; and facilities required to report wastewater discharges pursuant to the Permit Compliance System.”⁴³ Some analysts tout Envirofacts as “one of the best sources of environmental information on the Internet” because it is available in multiple formats, is easy to and can be accessed through a “fill-in-the-blank” form, and “almost all of the information on the site is derived directly from industry self-reporting to the U.S. EPA and/or its state counterparts, pursuant to mandates imposed by law.”⁴⁴

Individuals can also access environmental information through private websites. For example, the Right-To-Know Network⁴⁵ “offers information from government files about

³⁸ William Gilles & Irene Bouhadana, *From the Right to Be Let Alone to the Right to Be Forgotten: How Privacy Is Moving in the Collecting Data Age*, in RUSSELL L. WEAVER, STEVEN I. FRIEDLAND, WILLIAM GILLES & IRENE BOUHADANA, *PRIVACY IN A DIGITAL AGE: PERSPECTIVES FROM TWO CONTINENTS* ____ (2016) (forthcoming).

³⁹ *Id.*

⁴⁰ See Keith Harley & Holly D. Gordon, *Public Participation and Environmental Advocacy in the Internet Era*, 16 NAT. RESOURCES & ENVIRONMENT. 296 (2001).

⁴¹ *See id.*

⁴² www.epa.gov/enviro

⁴³ See Harley & Gordon, *supra* note 40, at 297.

⁴⁴ *Id.*

⁴⁵ www.rtknet.org

chemical accidents and unpermitted releases, chemical testing and federal civil enforcement action, and also includes other information (*e.g.*, census, environmental, and mapping information).⁴⁶ In addition, Environmental Defense maintains the website Scorecard⁴⁷ which publishes information in an effort to “encourage and sustain activism.” Scorecard focuses on matters “like lead poisoning and runoff from animal lots,” and includes “a report card ranking system by which states (and in most cases, smaller geographic areas) and facilities are contrasted with each other.” Another website is maintained by the Natural Resources Defense Council’s (NRDC) which posts information on its website⁴⁸ related to the EPA’s Cumulative Exposure Project (CEP).⁴⁹ There are other similar websites.⁵⁰

Individuals can also use the Internet to locate scientific and technical information that will help them evaluate the technical environmental information that they find on the EPA website or other sites.⁵¹ For example, the U.S. EPA’s Office of Air Quality, Planning and Standards provides the Technology Transfer Network⁵² provides a “clearinghouse of the scientific and engineering information used to generate EPA’s multiple Clean Air Act activities.”⁵³ The website includes the Maximum Achievable Control Technology (MACT), including emissions and pollution control information reported by industry sector, and the Ozone Transport Assessment Group, which documents “nitrogen oxide (NO_x) transportation across the eastern United States.”⁵⁴ Of course, individuals can also use search engine directories such as the Google Web Directory which “offers numerous subcategories of websites under ‘environment,’ including ten sites on environmental ethics, seventy-six sites on forests and rainforests, and 385 sites on biodiversity.”⁵⁵

⁴⁶ See Harley & Gordon, *supra* note 40, at 297.

⁴⁷ www.scorecard.org

⁴⁸ www.nrdc.org/air/pollution/cep

⁴⁹ See Harley & Gordon, *supra* note 40, at 297.

⁵⁰ *Id.* (“Perhaps the best site for obtaining quality, understandable information about potential hazards posed by different chemicals is offered by the Agency for Toxic Substances and Disease Registry (ATSDR), a division of the Centers for Disease Control.”).

⁵¹ *Id.*

⁵² www.epa.gov/ttn

⁵³ See Harley & Gordon, *supra* note 40, at 297.

⁵⁴ *Id.*

⁵⁵ *Id.*

In addition to accessing technical and scientific information on the Internet, individuals can also access legal information through such sites as “Findlaw” and the Government Printing Office’s “GPO Access.”⁵⁶ Findlaw⁵⁷ “provides a wide array of useful legal documents and links to legal resources for environmental advocates,” including the United States Code, the Code of Federal Regulations and *Federal Register* notices, as well as statutes and administrative codes for many states, and some U.S. Supreme Court opinions and lower court information and opinions.⁵⁸ “Findlaw also provides links to websites for nonprofit legal groups and information regarding the U.S. House of Representatives, Senate, and Council on Environmental Quality.”⁵⁹ GPO Access⁶⁰ provides many of the same documents available on Findlaw, including a collection of earlier U.S. Supreme Court opinions, as well as “congressional bills and hearing reports, House and Senate reports and *Congressional Records*.”⁶¹

B. ENABLING CITIZEN PARTICIPATION IN GOVERNMENTAL PROCESSES

The Internet has also enabled citizen participation in governmental decisionmaking processes such as permitting, rulemaking, and legislation. For one thing, individuals can now use the Internet to ascertain information regarding ongoing administrative processes. For example, the EPA's rulemaking process can be accessed through the web.⁶² On a local level, many states and regional EPA now place online draft permits, public notices, final permits, summary documents, and point-of-contact information online.⁶³ For example, in Illinois, air permits are posted on a single website.⁶⁴

C. ENABLING CITIZEN ACTIVISM

Perhaps as important, if not more important, the Internet has enabled ordinary citizens to organize in an effort to affect and control the broader political processes.

⁵⁶ *Id.* at 297-298.

⁵⁷ www.findlaw.com

⁵⁸ *See* Harley & Gordon, *supra* note 40, at 298.

⁵⁹ *Id.*

⁶⁰ www.access.gpo.gov

⁶¹ *See* Harley & Gordon, *supra* note 40, at 298.

⁶² www.epa.gov/fedrgstr

⁶³ *See* Harley & Gordon, *supra* note 40.

⁶⁴ *Id.*

The Internet has also enabled and empowered citizen activism. For the first time in history, ordinary people are able to widely disseminate their ideas all over the world and to do so instantaneously. Not only can individuals send e-mails and create websites, they can also create chat rooms, list serves and blogs. They can also send text messages, and communicate in lots of other (new) ways.

The impact of the Internet has been profound. In the environmental area, this activism has been obvious. The Internet also offers public interest advocates a new way to communicate with one another and to organize political constituencies. For example, the Clean Air Network (CAN) is a Washington-based organization that builds coalitions among a wide range of groups from across the country in an effort to promote clean air.⁶⁵ The Internet has also enabled the media to advocate for governmental responses to climate change.⁶⁶ For example, one blog on the New York Times website advocated in favor of the climate change theory,⁶⁷ and another blog discussed ways that ordinary people can combat climate change.⁶⁸ The evidence suggests that some blogs have broad readership.⁶⁹ In addition, there is evidence that governmental policymakers are aware of what is being written in blogs.⁷⁰ For example, governmental policymakers have critiqued information contained in blogs (even though those policymakers might not have been altered or shifted by the blogs).⁷¹

Even in China, a country in which the government has engaged in aggressive censorship,

⁶⁵ *Id.* at 298.

⁶⁶ See Daniel Altman, *Blogging and Thinking About the Big Issues: Managing Globalization*, *International Herald Tribune* 12 (May 30, 2007).

⁶⁷ See Eric Berger, *BLOG: SciGuy: Climate Olympics: Two Compete for the Grandstanding Medal*, *International New York Times* (Nov. 8, 2015).

⁶⁸ See Bettina Wassener, *A Fight That Doesn't Need Heroes*, *International New York Times* 19 (Apr. 8, 2010).

⁶⁹ See Daniel Altman, *Blogging and Thinking About the Big Issues: Managing Globalization*, *International Herald Tribune* 12 (May 30, 2007) (“When an editor suggested finding out why so few women left comments by taking the subject on in a post, female “lurkers” immediately made their presence known with varying degrees of indignation.”).

⁷⁰ *Id.*

⁷¹ *Id.* (“While commenters butted heads and shared their knowledge, was anyone in high places reading? Apparently so, as Stephen Adams, a spokesman for Peter Mandelson, the European Union's commissioner for trade, took issue with the headline “Mandelson: Repent, repent!” He had read it as “Mandelson, repent, repent!” After a short offline discussion of punctuation, Adams contributed a substantive response to the blog.”).

the Internet is beginning to significantly reshape society.⁷² China now has some 298 million Internet users, as well as some 70 million bloggers,⁷³ and those bloggers have repeatedly found ways to avoid governmentally-imposed Internet restrictions.⁷⁴ The Internet has been vigorously employed by ordinary Chinese people to pressure the Chinese government on environmental issues. For years, the Chinese government has tried to downplay the existence of pollution within the country.⁷⁵ As a result, when airline flights are cancelled or delayed due to pollution, airport authorities make no reference to pollution in their announcements, but instead suggest that the cancellations are due to “weather conditions.”⁷⁶ Likewise, when smog envelopes a city, the government characterizes the haze as “fog, not fumes.”⁷⁷ These efforts to silence communication are repeatedly being challenged. Although Twitter feeds are blocked in China, U.S. Embassy pollution readings in China are distributed through unblocked sites.⁷⁸ Likewise, when the Chinese government claimed that air quality was improving, disbelieving activists purchased air quality monitors, and began posting environmental readings on the Internet.⁷⁹ Environmental activists in other Chinese cities did likewise.⁸⁰ As pollution data began to mount, Chinese citizens began to demand environmental improvements, and air quality standards were

⁷² See Andrew Jacobs & Jonathan Anstiel, *For China, “Stability Above All”: State Pours Resources Into Monitoring Critics and Quelling Dissent*, *The International Herald Tribune*, at 6 (Dec. 10, 2010).

⁷³ See Anne Stopper, *China Appears to Tighten Internet Access Around Tiananmen Anniversary*, PBS News Hour (June 1, 2009).

⁷⁴ *Id.*

⁷⁵ See Edward Wong, *Anger Rages as Beijing Chokes in a Dark Cloud: Unreported Levels*, *The International New York Times* 1 (Dec. 7, 2011).

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ See Sharon LaFraniere, *Activists Crack China’s Wall of Denial About Air Pollution*, *The New York Times*, at A4 (Jan. 28, 2012).

⁸⁰ *Id.*

heightened.⁸¹ In one instance, a video about the environment went viral in China.⁸² The video received millions of hits within the space of a week,⁸³ and was ultimately banned by the Chinese government,⁸⁴ but not before it created a national stir over Chinese environmental issues.⁸⁵

CONCLUSION

The Internet has profoundly influenced communication, and has also enabled a new era of active citizen participation in governmental decisionmaking processes. This enabling has occurred in many different areas. Not only has it enabled citizens to gather information regarding governmental decisionmaking processes (Professor William Gilles' idea of "sousveillance"), but has enabled citizens to participate in those processes. In addition, it has given citizens the ability to organize in an effort to affect and control political processes and governmental decisionmaking. In other words, the Internet has the potential to profoundly transform society and government.

The Internet is not without its detractors or adverse impacts on citizen participation in governmental processes. It can be used not only by environmental activists, but also their opponents, and can be both a source of legitimate information and misinformation.⁸⁶ As one commentator noted, although "blog after blog denies climate change is a problem or that people's

⁸¹ *Id.* (The Chinese government decreed "that about 30 major cities must begin monitoring the particulates this year, followed by about 80 more next year. The Ministry of Environmental Protection also promised to set health standards for such fine particulates 'as soon as possible.'").

⁸² See Edward Wong, *China Blocks Web Expose on its Air Pollution*, *International New York Times* 1 (Mar. 7, 2015).

⁸³ *Id.* ("Under the Dome," a searing documentary about China's catastrophic air pollution, had hundreds of millions of views on Chinese websites within days of its release one week ago.").

⁸⁴ *Id.* ("Then on Friday afternoon, the momentum over the viral video came to an abrupt halt, as major Chinese video websites deleted it under orders from the Communist Party's central propaganda department.").

⁸⁵ *Id.* ("The startling phenomenon of the video, the national debate it triggered and the official attempts to quash it reflect the deep political sensitivities in the struggle within the bureaucracy to reverse China's environmental degradation, among the worst in the world.").

⁸⁶ See Lindsay Peterson, *Climate Scientist: Don't Trust Uninformed Blogs*, *Tampa Tribune* (Feb. 12, 2010).

actions have anything to do with it,” but often, “there's no basis behind what is reported.”⁸⁷ In one instance, computer hackers sought to undermine claims regarding climate change.⁸⁸ They did so by breaking into a computer server at a climate research center in Britain, stealing correspondence between U.S. and British researchers, and claiming that the correspondence showed that the case for climate change had been overstated and “attempted to manipulate data.”⁸⁹ Disclosure of the information created a furor because it was released only weeks before the Copenhagen climate change conference.⁹⁰

⁸⁷ *Id.*

⁸⁸ See David Stringer, *Computer Hackers Leak E-mails, Stoke Global Warming Debate*, *Seattle Times* A9 (Nov. 22, 2009).

⁸⁹ *Id.*

⁹⁰ *Id.*