

4. Carla Lazzareschi, "Suit over Cellular Radiation Raises Hazard Questions," *Los Angeles Times*, January 23, 1993, D1.
5. As recently as June 2006, scientists, who were still unable to resolve this question, joined with tumor victims for a conference sponsored by the National Brain Tumor Foundation. See "Brain Cancer and the Environment: What's the Connection? First-Ever Conference to Take Place in San Francisco," *PR Newswire*, June 21, 2006.
6. Manheim, *All of the People*.

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THE INTERNET AND
PUBLIC POLICY

Helen Z. Margetts

Editor's Note

Manipulating media effects means more than merely trying to steer news media behavior. It also encompasses making use of the unique capacities of a particular medium to accomplish hitherto improbable tasks. In chapter 36, Helen Margetts spins out visions of changes in government policy making made possible through the technological capacities of the Internet and the fact that access to this message channel is open inexpensively to nearly everyone. The chapter focuses on the changing role played by governments in political communication networks and the impact of new capabilities on the power to govern and sustain cultural values. On balance, the picture that emerges is reasonably bright, albeit still quite hazy.

When this essay was written, Helen Z. Margetts was a professor at the Oxford Internet Institute, University of Oxford, United Kingdom. She was also the editor-in-chief of a new journal, *Policy and Internet*. The journal is dedicated to analyzing the role of the Internet in public policy making and the consequences that ensue and affect societal patterns. This was the opening essay in the first issue and intended to articulate the journal's mission and scope.

Policymaking in the twenty-first century takes place in a changed environment. A significant proportion of social, economic and political activity across the world takes place on the Internet. The Internet is intertwined with financial markets, with government and public services, with social life and social problems, and with the criminal world. Increasingly the major

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allenges that face public policy—from climate change to crime to public health—are tackled with technological innovations that involve the Internet. The Internet is embedded in interactions between citizens, firms, governments and NGOs, bringing with it new practices, norms and structures. These developments require—and facilitate—a policy response. . . .

This article sets out the agenda, pointing across the cornucopia of issues. . . . First, it considers societal trends that relate to the Internet and their implications for policymaking. Second, it looks at how these trends might affect each of the four ‘tools’ of government policy: nodality, authority, treasure and organizational capacity, in terms of sustaining the operations of government and driving innovation. Third, it asks what ‘values’ we might expect the Internet to bring to policymaking. . . .

Internet-Fuelled Social, Economic and Political Change—Requiring a Policy Response

For many people across the world, large chunks of their social, economic and political life have moved online. By 2009 there were an estimated 1.7 billion users of the Internet worldwide, a quarter of the world’s population. Internet penetration has reached nearly 100 per cent in some Scandinavian countries, three quarters of the population in North America, half of the European population and nearly one fifth in Asia, where it continues to grow at a dramatic rate. Asian users already represent over 40 per cent of the total number of Internet users worldwide and over 380 million of them are using the Internet in Chinese (www.internetworldstats.com). For those who have access, the Internet is the first port of call for information on almost any subject, radically lowering the transaction costs of information seeking and exchange. People are . . . doing new things, particularly with the growth of so-called Web 2.0 applications, where users can easily produce as well as consume content themselves. Examples include social networking sites, used by around a third of Internet users; photo and video-sharing sites such as Flickr and YouTube; blogs and social media such as Twitter; and peer-produced information goods such as the online user-generated encyclopedia Wikipedia, the English language version of which has over 3 million articles and 11 million registered users. The huge growth in social networking and social media sites means that a significant proportion of Internet users now produces as well as consumes content on the Internet. . . .

Perhaps more than any other area, the economic world has moved online. From the first online bank in 1994 and the launch of Amazon.com in 1995, U.S. e-commerce and online retail sales reached over \$200 billion in 2008. Internet-based networks such as intranets and extranets span the whole value chain of all but the smallest of businesses in the developed world. By 2009, over 80 per cent of Internet users in the UK had bought or

searched for product information online. The Internet and related technologies have brought major changes to global financial markets, particularly in terms of reduced transaction costs, cross-border money flows and spiraling complexity. New ‘peer-to-peer’ markets have developed, where consumers sell to each other, including Internet auction ‘houses’ such as e-Bay where people buy from anonymous sellers and more personalized markets within social networking sites where people buy from people in their friendship networks.

Political and interest group mobilization has also shifted onto the Internet. There has been a rise in global political activism, with Internet-based mass demonstrations against corporate globalization. New globally oriented interest groups have formed almost entirely online, such as the civic campaigning organization Avaaz, with its mission to ‘ensure that the views and values of the world’s people inform global decision making’ and a claim of more than three million members from every country in the world (www.avaaz.org), and the online NGO Kiva, the ‘world’s first person-to-person micro-lending website,’ which matches potential entrepreneurs in developing countries with potential donors. . . . In 2003, millions of people were mobilized rapidly across the world to demonstrate against their state’s involvement in the Iraq war. In 2006, millions of U.S. citizens protested against changes to U.S. immigration policy, including 500,000 in Los Angeles alone. Mass demonstrations took place in Iran in protest at allegedly rigged election results in 2009, both organized and broadcast across the world through Internet-based communications. Even more traditional groups operate through online networks and undertake a whole range of online activities, while running down their ‘offline’ activities. It is a topic of debate whether political parties may not be transforming themselves into mass membership organizations online (see Gibson and Ward, 2009; Margetts, 2006a), but in any case, the Internet has had a dramatic effect on how they interact with supporters, donors and potential voters.

Basically, then, the people, firms, interest groups and political organizations with whom governments interact and make policy ‘about’ are using the Internet in their lives and business in a huge variety of ways, with potentially profound policy effects. A taxation agency must take account of the virtualization and flows of capital across national boundaries. An employment agency must realise that job search has moved online and must enter a highly competitive market if it wishes to provide job seeking services. Education agencies must incorporate the Internet into teaching curricula and consider the possibilities of e-learning, health professionals must understand the proliferation of online health information, police agencies must contend with cybercrime, foreign offices deal with globally linked diaspora and protest movements. The list is endless.

Although these developments are much discussed as social and economic phenomena, the policy responses that they necessitate are less often analysed. The governance of the Internet is a hugely debated issue, perhaps ironically given the techno-utopian dream of the earliest users, who saw it as the ultimate ungovernable space (Barlow, 1996; Hofmann, 2010). The more diffuse yet pervasive implications for public policy of social, economic and political changes across sectors of society, the economy and government, has been less coherently explored. . . .

The Internet and the Tools of Public Policy: Shifting the Mix?

To consider what the implications of the Internet for policymaking might be, we need an analytical device to provide some structure to the diffuse range of possible policy effects. One such device is the 'tools of government' approach conceived by Hood (1983) and developed by Hood and Margetts (2007) for the digital era. When making policy, governments are trying to influence social behaviour and shape the world outside; these authors argue that to undertake this task, governments have four basic types of tool in their toolkit. First, *nodality* denotes the property of being 'nodal' to information and social networks and having the capacity to disseminate and collect information. Second, *authority* denotes the possession of legal or official power to demand, forbid, guarantee or adjudicate. Third, *treasure* denotes the possession of money or that which can be freely exchanged. Fourth, *organizational capacity* denotes the possession of a stock of people and skills, land, buildings, materials, computers and equipment, somehow arranged.

Any public policy will involve some mixture of these four basic resources. So for example, a governmental campaign to reduce levels of smoking in a population could involve a public information and advertising campaign (nodality), regulation of advertising and the banning of smoking in public places (authority), incentivization to give up smoking through the provision of free nicotine alternatives (treasure), and the provision of professional help to give up, such as a help-line or trained counselling (organizational capacity). A government planning such a campaign would be looking at some menu of these basic possibilities. . . .

. . . [W]hat important trends in policymaking might result from the shift of so much of societal life onto the Internet?

Nodality: Rising Competition in a Heterogenous Information Environment

First, with respect to nodality, the Internet has brought change to the whole information environment within which governments (and indeed all organizations) operate. In a fundamental shift in information seeking behaviour, the Internet is becoming the first port of call for any information

seeking task; over half of UK citizens now say they would go to the Internet first to find out the 'name of their MP if they didn't know it,' for example, and the figures for travel or product information are much higher (Dutton et al., 2009). As citizens go to the Internet first to find things out, what they find will depend on their search strategy and the algorithm of search engines as well as the capacity of organizations to make sure they appear in the top ten search engine results (beyond which most citizens do not stray, Petricek et al., 2005). So the nodality of government will depend upon government's ability to compete successfully in the online space, something that many governments find challenging. Nodality will also be crucially affected by the decisions of the most popular search engines (Google in the UK), which become important new actors on the policymaking stage. And a whole range of social media will have further implications; as information flows through viral networks on applications such as Facebook and Twitter, the nodality of any organization depends not just on its own Web space but on its ability to operate within these networks. Traditional media outlets such as television channels and newspapers struggle to reinvent themselves in this environment, with many (particularly local newspapers) failing during the late 2000s. With the proliferation of information channels online, it can become more difficult for government to disseminate information; the potential audience is increasingly fragmented.

An 'Arms Race' for Authority

For authority, the Internet does not change the basic resource—something that government possesses by virtue of being government. But it does vastly influence government's ability to wield that authority, both in terms of how citizens use the Internet to challenge or circumvent authority, and how governments use the Internet and related technologies to respond. The network architecture chosen for the early Internet allowed a freedom of content exchange that led early Internet users to believe it to be an anarchic, ungovernable space (Hofmann, 2010). Indeed one of the pioneers famously proclaimed in his 'Declaration of the Independence of Cyberspace' to 'Governments of the Industrial World': 'I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us' (John Perry Barlow, 1996). From this time, the Internet itself has been a highly contested policy object itself, with intense debate over the susceptibility of the Internet to regulation, particularly with the growth in e-commerce (Lessig, 2006). And those arrangements that have developed for governing the Internet have implications for how we understand governance *per se*. . . .

The intertwining of the Internet with authority could lead to a reshaping of state-citizen relationships across regimes of all kinds. In authoritarian states, opposition movements shift online and develop new forms of political mobilization, as in the Iranian demonstrations of 2009; many regimes

respond by operating sophisticated Internet filtering regimes (Deibert et al., 2008) and targeting cyber-activists. In more democratic regimes, criminal justice agencies use the Internet to mine personal information held by government and to target authority at suspect groups or key areas (crime 'hotspots') in what some have come to label the 'surveillance state' (Lyon, 2003), raising issues of 'privacy' and 'identity' which have become key areas of concern for many Internet researchers. Internet technologies also present possibilities of 'techno-regulation,' both in terms of policing the Internet itself (through automatic censoring of child abuse images, for example) and new ways of directing authority within the state, for example, for regulating health professionals, and in the use of Internet-based systems as a means to limit state corruption in developing countries. Nearly all states face spiralling cybercrime of an increasingly professionalised kind (Hofmann, 2010) and some have even experienced 'cyber war,' requiring government agencies to participate in an 'arms race' of technological sophistication in their handling of authority.

Targeting Treasure: Conditionality in Public Policy

Third, treasure was perhaps the earliest resource to move online; firms and governments moved their financial systems online from the 1950s onwards and e-commerce boomed, busted and boomed again in the early days of widespread Internet use. Changes in the way that governments and firms process treasure range from macro to micro; it is uncontroversial to argue that the Internet has brought a 'virtualization of capital' (Castells, 2009) and a spiralling complexity of financial products that played such an important role in the worldwide banking crisis of 2008–9 and that pose major challenges to financial regulation and taxation policy. The Internet and related technologies greatly enhance government's ability to identify certain categories of citizens eligible for specific benefits and tax credits, bringing a general shift towards 'conditionality' in public policy (Henman, 2010). The Internet allows more fine-tuning of treasure in other areas, for example in labour markets, where it becomes possible for certain services (including governmental operations) to be located remotely in any part of the world. Forms of spot contracting of labour have also emerged, such as Amazon's micro-labour market Mechanical Turk, where users can work at home on their computers performing a range of tasks for micro-payments.

Organizational Capacity: Shifting Boundaries between Governments and Citizens

Widespread use of the Internet means that to some extent, the balance of government's organizational capacity relative to that of society has shifted, with the emergence of new 'para-organizational' forms, such as the rise of trans-national diaspora as coherent players in foreign policymaking

(Westcott, 2008). As noted in the introduction, social movements have leapt online, seemingly remodelling the 'logic' of collective action as the costs of mass mobilization reduce and real-time 'social information' can increase incentives to participate (Lupia and Sin, 2003; Margetts, John et al., 2009). Social media facilitate 'storms' of citizen-initiated policy activity that put pressure on policy-makers to change policies. The growing phenomenon of 'peer production' (Benkler, 2006) has led to the success of Wikipedia and a whole host of other freely available user-generated information goods. Government has lagged in making use of these models of production, weakening their capacity vis-à-vis society.

The Internet challenges one category of organizational capacity in particular: organizational expertise. That is, it facilitates deprofessionalization and a remodeling of 'principal-agent' relationships across public and private sectors. Changes in the scale and quality of information available to Internet users can in some contexts drastically shift information asymmetries between professionals and citizens, often in citizens' favour. Healthcare professionals regularly encounter patients that have used search to uncover large amounts of deeply specialised information, while university lecturers must face the fact that even while they speak, their students often have literally at their fingertips a huge range of knowledge and expertise which could challenge their pronouncements. . . .

As these trends develop, it has been argued that the Internet and related technologies could really transform government's organizational capacity, presenting a new paradigm for how government is organized, in what some have labelled Digital-Era Governance (DEG) (Dunleavy, Margetts et al., 2006) where digital technologies play a central role in public management reform. Under this view, government's organizational capacity is crucially affected by its capacity to use the Internet and related technologies internally and to interact with citizens, firms, voluntary organizations and other governments, in what is now widely known as 'e-government,' surely a topic for extensive analysis. . . . Under the DEG view, Internet-based technologies (particularly 'Web 2.0' applications) could allow a 'co-production' or even 'co-creation' of public services, where citizens enter the front office of government in a 'democratization of innovation' (von Hippel, 2005).

Each of the four 'tools' of government policy then is affected in distinct ways by widespread use of the Internet, which offers new solutions and new challenges to policy-makers. For nodality, we might expect to see growing competition for governments seeking to use nodality in public policy initiatives and an increasingly fragmented information environment, in which disseminating generalized messages to the world at large may become more difficult. For authority, we see challenges to governmental authority which can require (or are perceived to require) policy responses that ratchet up

technological capability, which can become an 'arms race' between governments and citizens. For treasure, the Internet makes new forms of group-targeted incentivization possible, making it potentially a more agile and flexible policy tool. Finally, for organizational capacity we see a blurring of boundaries between public and private sectors and shifts in information asymmetries between professionals and citizens.

A 'tools' approach can thereby lead to a more nuanced vision of the relationship between the Internet and policy, rather than a general cry of 'all change' or 'no change' as was often the conclusion of early studies. Differential changes to government's capacity to use the tools are important, because they can shift the 'mix' of policy tools that policymakers are likely to select. So the challenge to government's use of nodality, for example, might lead to more authoritarian or costly government through increased use of the other tools, which are more likely to be costly, in terms of effort, expense and staffing requirements and the bringing of 'trouble, vexation and oppression' to citizens (Smith, 1910; Hood and Margetts, 2007: 155).

Generalized Policy Effects: The Internet and Changing Values in Public Policy

As well as bringing changes to each of the 'tools' of government, the Internet might bring more generalized change to policymaking and to the norms, values and ethics of public policy. For all four tools discussed above, Hood and Margetts (2007) noted a development towards digitally enabled 'group targeting' with a move away from the 'general' or 'particular' ends of the spectrum noted above. Basically, technological developments tend to make easier policies geared at some particular group or category of people, while making highly particular and widely generalized applications proportionately more difficult and expensive, in what communications scholars would call narrowcasting. Government can target authority specifically at certain groups, for example, by 'fast-tracking' travellers entering the country, or conversely by restricting the movement of other categories, through electronic tagging of prisoners for example. Treasure, as noted above, can be targeted conditionally towards groups according to their particular circumstances. Even organizational capacity may be operated in a group-targeted way, for example as in those road barriers that retract into the ground when authorized vehicles (such as taxis and ambulances) drive up close. Group targeting can make public policy more targeted and more efficient—it can also have less desirable effects, such as rising inequities between those who end up being fast-tracked and those who are slow-tracked.

The Internet could also bring new 'values' to public policy. . . . The Internet has been much heralded for its capacity to facilitate innovation (in what Zittrain, 2006, 2008 has termed generativity); its freedom and openness; its

capacity to engender trust in social and economic interactions; and the extent to which it lowers social boundaries and facilitates equity. If public policymaking and implementation is intertwined with the Internet and related technologies, could we expect some of these values to penetrate public policy trends as well?

The Internet as a platform for policy innovation: If this were the case, one such value would certainly be innovation. As Zittrain (2006) put it, the lack of any central controlling power means that the Internet should be conceptualized as a 'generative grid' including both PCs and networks, open to the creation and distribution of innovations. For the first time, digital technologies are being widely used by individuals and groups to innovate through interconnection with each other, in contrast to earlier information technologies which were largely internal to large firms and governments. As noted above, this proliferation of societal driven innovation requires a policy response across the policy tools. Quite simply, government has to innovate to preserve its nodality in the face of competition, to wield authority, to tax, to spend and to organize in the age of the Internet.

Openness in policymaking: Another value that the Internet might bring to public policy is openness, characterised by the freedom from control by any central agent in the design of the Internet; open access to information; and new possibilities for citizens to participate in policymaking. Openness is a value which contrasts strongly with the traditional perspective of governments and firms. The Internet has the potential to bring increased transparency (Hood and Heald, 2006), for example through open software which has even been hypothesised to lead to more effective democratic government (Camp, 2006), through reduced complexity of 'joined-up' government, greater accessibility of public information, moves towards freedom of information and 'open-book' government and more 'rule-like' government processes (Margetts, 2006b).

Trust in government?: Another potential value that the Internet could bring to public policy processes is trust, perhaps surprisingly given the traditional assumption that trust is something that evolves through face-to-face interaction. There is evidence to suggest that the Internet and the Web are 'experience technologies'; the more that people experience them the more they trust the applications and information that they provide (Dutton and Shepherd, 2006). . . . As electronic public services become ubiquitous, . . . [w]ill citizens trust government more online—because they feel that decisions have been made in an automated rules-based and impartial way—or less, because they perceive a ruthless automated dehumanised officialdom? And how can issues of privacy and online identity be resolved in ways that maintain trust in citizen-government and business-citizen relationships?

Equity—and inequity: Finally, equity was at the heart of the new forms of social organization heralded by the early techno-utopians who saw cyberspace as a place where traditional prejudices, social boundaries and inequities could be broken down. The anonymity that the Internet provides (encapsulated by the famous *New Yorker* cartoon of a dog sitting at a computer terminal with the caption 'On the Internet, no-one knows you are a dog,' 5th July 1993) can be one way that prejudices are reduced (although in the dog's case, they would re-emerge). In policy terms, however, it is clear that the Internet has also brought the potential for new inequities, particularly for those who lack Internet skills or access. Digital exclusion has been shown to be associated with social and economic exclusion (Helsper, 2008; Helsper and Galacz 2009) and such inequities between the digitally included and excluded could be exacerbated as electronic interaction becomes the norm, with the potential for 'residualization' of services for excluded groups, as offline channels are run down or even withdrawn altogether. Online equity is enhanced by the development of the non-English Internet, as huge new language populations move online, although other inequities could be on the way as the Web becomes increasingly segmented according to language.

There is of course nothing inevitable about the appearance of these values in public policy trends, but we can expect to see them raised by those analyzing the relationship between the Internet and policy. And if they do become prevalent in policymaking environments, then we might also expect particular counter-values in policymaking to arise. For example, as governments—traditionally viewed as poor innovators particularly where technology is involved—are forced into positions where they have to innovate, we might expect higher levels of risk in policymaking, and the attempt to counter risk by bringing robustness and resilience, at the heart of traditional perspectives on public administration, back in as counter-values (Hood, 1991). Likewise, if the values of openness and trust mean that public sector information becomes widely available and people more trusting of Internet-based applications, we might see security emerging as a key value of public policy and administration. Alternatively, as personal information becomes so freely available online, meaning that nothing is forgotten but remains available indefinitely, Mayer-Schöberger (2009) has argued that we need to bring specific policies geared at 'the virtue of forgetting,' such as mandatory expiry dates on documents that contain such information. And as openly produced and freely consumed goods have become widely available, such as encyclopaedias and news sources, we have seen the traditional producers of private goods, such as mainstream media, devise ways of returning such goods to the market; for example, various prominent media figures claim that most newspapers will soon be charging for content online (as the *Financial Times*

already does). Finally, as noted above, the possibilities for equity facilitated by the Internet provoke new questions of inequity for those who do not have Internet access or skills, discussed under the banners of 'digital divides' and 'digital exclusion.' . . .

References

- Barlow, J. P. 1996. *A Declaration of the Independence of Cyberspace*. 8 February. Available at: http://w2.eff.org/Censorship/Internet_censorship_bills/barlow_0296.declaration
- Benkler, Y. 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, Yale University Press.
- Camp, L. J. 2006. 'Varieties of Software and their Implications for Effective Democratic Government,' in C. Hood and D. Heald (eds.), *Transparency: The Key to Better Governance?* Oxford University Press.
- Castells, M. 2009. *Communication Power*, Oxford University Press.
- Deibert, R., Palfrey, J., Rohozinski, R., and Zittrain, J. 2008. *Access Denied: The Practice and Policy of Global Internet Filtering*, Cambridge: MIT Press.
- Dunleavy, P., Margetts, H., Bastow, S., and Tinkler, J. 2006. *Digital-era Governance: IT Corporations, the State and e-Government*, Oxford University Press.
- Dutton, W. H., and Shepherd, A. 2006. 'Trust in the Internet as an Experience Technology,' *Information, Communication and Society* 9 (4).
- Dutton, W. H., Helsper, E., and Gerber, M. 2009. *The Internet in Britain: The Oxford Internet Survey (OxIS) 2009*, Oxford: Oxford Internet Institute.
- Gibson, R., and Ward, S. 2009. 'Parties in the Digital Age—A Review Article,' *Representation* 45 (1): 87–100.
- Helsper, E. J. 2008. *Digital Inclusion: An Analysis of Social Disadvantage and the Information Society*, Oxford: Oxford Internet Institute.
- Helsper, E. J., and Galacz, A. 2009. Understanding Links between Digital Engagement and Social Inclusion in Europe, in A. Cheong and G. Cardoso (eds.), *World Wide Internet: Changing Societies, Economies and Cultures*, Macao University Printing House: Taipa, Macau.
- Henman, P. 2010. *Governing Electronically*, Palgrave Macmillan.
- Hofmann, J. 2010. 'Et in Arcadio Ego: From Techno-utopia to Cybercrime,' in Helen Margetts, Perri 6 and Christopher Hood (eds.), *Paradoxes of Modernization: Unintended Consequences of Public Policy Reform*, Oxford University Press.
- Hood, C. 1991. 'A Public Management for all Seasons,' *Public Administration* 69 (1): 3–19.
- Hood, C. 1983. *The Tools of Government*, London: Macmillan.
- Hood, C., and Heald, D. (eds.) 2006. *Transparency: The Key to Better Governance?* Oxford University Press.
- Hood, C., and Margetts, H. 2007. *The Tools of Government in the Digital Age*, London: Palgrave Macmillan.
- Lessig, L. 2006. *Code and Other Laws of Cyberspace, Version 2.0*, New York: Basic Books.

- Lupia, A., and Sin, G. 2003. 'Which Public Goods Are Endangered? How Evolving Communication Technologies Affect the Logic of Collective Action,' *Public Choice* 117: 315-331.
- Lyon, D. 2003. *Surveillance as Social Sorting: Privacy, Risk and Digital Discrimination*, London: Routledge.
- Margetts, H. 2006a. 'Cyber Parties,' *Handbook of Party Politics*, London: Sage.
- Margetts, H. 2006b. 'Transparency in Digital Government,' in C. Hood and D. Heald (eds.), *Transparency: The Key to Better Governance?* Oxford University Press.
- Margetts, H., John, P., Escher, T., and Reissfelder, S. 2009. 'Experiments for Web Science: Examining the Effect of the Internet on Collective Action,' Proceedings of the WebSci'09: Society On-Line Conference, 18-20 March 2009, Athens, Greece.
- Mayer-Schönberger, V. 2009. *Delete: The Virtue of Forgetting in the Digital Age*, Princeton University Press.
- Petricek, V., Escher, T., Cox, I. J., and Margetts, H. 2005. 'The Web Structure of E-Government—Developing a Methodology for Quantitative Evaluation,' in Proceedings of the 15th International World Wide Web Conference (WWW 2006).
- Smith, A. 1910. *The Wealth of Nations*, London: Dent. First published 1776.
- von Hippel, E. 2005. *Democratizing Innovation*, Cambridge: MIT Press.
- Westcott, N. 2008. 'Digital Diplomacy: The Impact of the Internet on International Relations,' Oxford Internet Institute Working Paper, Number 16.
- Zittrain, J. 2008. *The Future of the Internet, and How to Stop It*, London: Penguin Books.
- Zittrain, J. 2006. 'The Generative Internet,' *Harvard Law Review* 119: 1974-2040.

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