

Through the Network (of Networks) – the Fifth Estate*

by

William H. Dutton

Professor of Internet Studies

Oxford Internet Institute

University of Oxford

*Prepared for an Inaugural Lecture, Examination Schools, University of Oxford, 15 October 2007. I thank Martin Elton, Linda Frankland, Ellen Helsper, Malcolm Peltu and Juliet Webster for their comments and encouragement to discuss this topic.

It is an honour for me to present my inaugural lecture to you, and to do so here in The Examination Schools. This is a special place and – as we all know – place matters. Today, I will focus on how – in Internet time and space – users are able to reconfigure their access to information, people and other resources in new ways that are of major significance for society.

The Rise of a Fifth Estate in Internet Time and Space

In an earlier era, printing was tied to the rise of the press as a major institution. Its subsequent growing role in conjunction with the development of radio, television and other mass media has created an independent institution in many nations, which has become known as the 'Fourth Estate'. This has become central to pluralist democratic processes.

Today I would like to explain why I believe it would not be an exaggeration to argue that a new form of social accountability is emerging in what I am calling the 'Fifth Estate'. It is enabled by the growing use of the Internet and related information and communication technologies (ICTs), such as the personal computer and World Wide Web. Essentially, the Internet is enabling people to network with other individuals and with a vast range of information, services and technical resources. This is being achieved in ways that can support greater accountability not only in government and politics, but also in other sectors. I will argue that this could be as important – if not more so – to the 21st century as the Fourth Estate has been since the 18th.

From the Reporter's Gallery to the Internet

Thomas Carlyle attributed¹ the Fourth Estate concept to Edmund Burke²:

Burke said there were Three Estates in Parliament; but, in the Reporter's Gallery yonder, there sat a Fourth Estate more important far than they all. It is not a figure of speech, or witty saying; it is a literal fact – very momentous to us in these times.

More interestingly, even in the 19th Century, the rise of the press led William Thackeray³ to refer to the Fourth Estate in ways that we might think of the Internet today:

Of the Corporation of the Goosequill – of the Press ... of the Fourth Estate. ... There she is – the great engine – she never sleeps. She has her ambassadors in every quarter of the world – her courtiers upon every road.

¹ Carlyle, T. (1905), *On Heroes: Hero Worship and the Heroic in History* (London: H. R. Allenson), pp. 349-350.

² In Britain in the 18th century, the first three estates may have referred to the clergy, nobility and commons. Now, in the US these are most often defined as the three branches of government. Since the 1800s, the Fourth Estate has enfolded the media generally, while continuing to be viewed as critical to checks and balances in pluralist democracies. Thus, over time, the press and mass media have been viewed as the Fourth Estate – however one characterizes the central institutions of power that comprise the other three Estates.

³ William Makepeace Thackeray [1848-1850], *The History of Pendennis*, Chapters 19, 30.

Her officers march along with armies, and her envoys walk into statesmen's cabinets. They are ubiquitous.

The Internet as Distinct from the Mass Media

Some have argued that the Internet is essentially a new medium similar to the traditional media. This has led to a view of the Internet as an adjunct of an evolving Fourth Estate. Others see elements of the Internet – such as the citizen journalist or the blogger – as composing a kind of Fifth Estate. However, both conceptions are tied to an overly limited notion of new digital media as being just a complementary form of news publishing.

The Internet is far more than a blogosphere or online digital add-on to the mass media. It is true that the Internet's broad social role in government and politics may have many similarities with that of traditional media. Equally importantly, it also plays roles that differ from traditional media, and it opens up other institutional arenas to greater social accountability – from everyday life to science.

Outline of this Talk

In this talk I will begin by reminding everyone of some of the countervailing viewpoints on the societal implications of the Internet. I will then place my conception of a Fifth Estate within this context. In going into more depth on its nature and implications, I will show how this conception is anchored in a set of findings across a wide range of research. These findings derive from the role of the Internet in everyday life, but also reflect findings about Internet use in politics, government, work, scientific research and education. This background provides the basis for a brief reflection on issues such as the governance of the Internet and other implications of the broad significance of the Fifth Estate.

The Politics of the Internet in Society

There is a growing sense around the world that the Internet is becoming increasingly central to many sectors of society. Most people attending this lecture might take this as given. However, the social role of the Internet remains a matter of considerable debate. Broadly, there are three contrasting viewpoints. I characterize these as: an emphasis on technical novelty; a technically deterministic debate about whether the Internet is a technology fostering greater freedom or control; and an understanding of the Internet as a network of networks, which can be shaped by people to reinforce the interests of individuals or major organizations or the networked individuals that form the Fifth Estate.

Technical Novelty

One view might now be called the 'passing fad'⁴ fallacy, which has focused on the supposed ephemeral nature of the Internet in comparison with other institutions and previous media. Even into the mid-1990s, many dismissed the significance of the Internet. For a time this included major players in the field⁵ who were slow to adapt to the increasing importance of this form of networking, but have since played central roles.

Despite evidence of a continuing growth in Internet use, the passing-fad thesis is refreshed from time to time,⁶ most dramatically with the bursting of the dotcom bubble in the late 1990s. With time, this passing fad thesis has become less credible, with debate focusing on two opposing views of the implications of Internet use. These see the Internet as either a technology of freedom or control.

Technologies of Freedom v. Control

The optimistic view is that the Internet will tend to democratize access to information and undermine hierarchies. For example, the late Ithiel de Sola Pool⁷ viewed computer-based communication networks like the Internet as inherently democratic 'technologies of freedom'.⁸ Individuals can network with people, information, services and technologies in ways that follow and reinforce their personal self-interests. The futurist John Naisbitt⁹ has best captured this view. According to Naisbitt:

⁴ Wyatt, S., Thomas, G., and Terranova, T. (2002), 'They Came, They Surfed, They Went Back to the Beach: Conceptualising Use and Non-use of the Internet', pp. 23-40 in Woolgar, S. (ed.), *Virtual Society? Technology, Cyberpole, Reality* (Oxford: Oxford University Press).

⁵ See, for example, Gates, B. (1995), *The Road Ahead* (London: Viking).

⁶ One recent example is provided by those identifying a new micro-trend in the so-called 'new Luddites' who drop off the Internet. This is a theme of the pollster Mark Penn, one of Hillary Clinton's advisors for her current Presidential campaign (see:

<http://www.freerepublic.com/focus/f-news/1901230/posts>). However, the evidence suggests this is not a trend but a consistent pattern of churn. In the UK, for example, the proportion of individuals who drop off, or discontinue, use of the Internet has not increased since the OII began tracking its use and non-use in 2003, holding at around 5 percent at any given time.

⁷ Pool views networks as inherently democratic, calling himself a soft technological determinist. See: Ithiel de Sola Pool (1983), *Technologies of Freedom* (Cambridge, MA: Harvard Press, Belknap Press).

⁸ It is also problematic to extrapolate the societal implications of a technology from knowing some of its key features. In fact, technologically deterministic thinking has been a major factor contributing to the generally poor track record of the many pundits and researchers forecasting the future of communication. However, as I am highlighting in this talk, it is possible to discover the implications of technical change by observing patterns of use and impact over time, including through field trials and pilots. See: Dutton, W. H. (1995), 'Driving into the Future of Communications? Check the Rear View Mirror', pp. 79-102 in Emmott, S. J. with Travis, D. (eds), *Information Superhighways: Multimedia Users and Futures* (New York: Academic Press).

⁹ Nash, V., Dutton, W. H. and Peltu, M. (2004), Innovative Pathways to the Next Level of e-Learning, *OII Forum Discussion Paper No.2* (Oxford: Oxford Internet Institute), p. 20. See: www.oii.ox.ac.uk/resources/publications/FD2.pdf

The really powerful networks are those where every member of it experiences that they are in the centre, and all the information is coming and going through us: we are the nexus, we are the centre.

Many others have countered this inherently individualistic, democratic notion of emerging communication technologies. They contend that institutions will adopt, design and use the Internet to enhance their control of existing institutional structures and organizational arrangements. For example, various e-initiatives, such as in the area of e-government or e-learning, are aimed at supporting or enhancing existing institutional arrangements. Bureaucratic organizations can use electronic networks to create e-bureaucracies. At the extreme, pessimists in this vein tie new technologies, from networked sensors to Web cameras to the rise of a surveillance society in Britain and other nations¹⁰ – hardly the outcome of a technology of freedom.

The Fifth Estate: Interplay between Individual and Institutional Networks

In response to this freedom v. control debate, it needs to be remembered that the Internet can support and reinforce many different forms of networks.¹¹ These connect not only in the one-to-many pattern of the mass media, but also one to one, many to one, many to many, and so on. Therefore, the Internet can be shaped by developers, users, and regulators to support the ‘communicative power’¹² of both institutions and individuals in many ways. Also – and this is critical – platforms for new networks of individuals that have a public, social benefit can be supported by the Internet and related ICTs, such as social networking Web sites, mailing lists and text messaging.

Self-selected individuals can build horizontal, peer-to-peer or even very centralized networks that are designed and used to meet broader social objectives more than those of the purely self-interested personal networks suggested by the individualist viewpoint¹³, which serve up a ‘daily-me’ in entertainment or conviviality.

‘Networked individuals’ can move across, undermine and go beyond the boundaries of existing institutions. This provides the basis for the pro-social networks that compose what I am calling the ‘Fifth Estate’.¹⁴ They are neither

¹⁰ Surveillance Studies Network (2006), A Report on the Surveillance Society for the Information Commissioner. (Wilmslow, UK: Office of the Information Commissioner), September.

¹¹ My own early work on reinforcement politics supported this conclusion, albeit in an earlier era of computing. See: Danziger, J., Dutton, W. H., Kling, R., and Kraemer, K. L. (1982), *Computers and Politics* (Oxford: Oxford University Press).

¹² Nicholas Garnham’s use of the term ‘communicative power’ does not mean that the Internet on its own can give new power to its users in the real world. But it does allow the formation of networks that can then lead to real-world power-shifts. See: Garnham, N. (1999), ‘Information Politics: The Study of Communicative Power’, in Dutton, W. H. (1999) *Society on the Line: Information Politics in the Digital Age* (Oxford and New York: Oxford University Press), pp. 77–78.

¹³ Sunstein, C. R. (2007), *Republic.com 2.0* (Princeton: Princeton University Press).

¹⁴ I am using the concept of networked individuals to reflect my sense of its correspondence to Barry Wellman’s concept of ‘networked individualism’, a term he uses to break old

personal nor institutional networks. They capture many attributes Manuel Castells¹⁵ views as an embodiment of a 'network society', and James Moore¹⁶ might have meant by 'the second superpower'. I would equate them with a particular form of what Gary Hamel describes more generally as 'Internet-enabled networks'.¹⁷

These self-selected, Internet-enabled, networked individuals often break from existing organizational and institutional networks that are themselves being transformed in Internet space. For example, medical professionals can reach beyond their local practices to share information with other professionals and patients anywhere in the world; or local government officials can engage with individuals on community Websites within – but also well beyond – their local constituencies.

The ability the Internet affords individuals to network within and beyond various institutional arenas in ways that can enhance and reinforce the 'communicative power' of 'networked individuals' is key. The interplay of change within and between such individual and institutional 'networks of networks' lies at the heart of what I am arguing is a distinctive and significant new Fifth Estate.

It would be quite fair of you at this point to wonder if this new space is some Alice in Wonderland viewed through a looking glass, rather than an empirical phenomenon organized through the 'network of networks'¹⁸ we call the Internet. I hope to convince you – using Burke's observation on the Fourth Estate – that the Fifth Estate enabled within this space is not: 'just a witty saying, nor wishful thinking, but a literal fact'.

Reconfiguring Access to the Fifth Estate

This potential to create new local and global networks stems from the role that the Internet and related ICTs can play in 'reconfiguring access'¹⁹ – to people,

dichotomies between the individual and place-based communities. This conception is developed, for example, in Wellman, B. (2001), 'Physical Place and Cyberplace: the Rise of Personalized Networking', *International Journal of Urban and Regional Research*, 25 (2), June: 227-52.

¹⁵ Castells, M. (1996), *The Rise of the Network Society* (Oxford: Blackwell Publishers).

¹⁶ Moore, J. F. (2003), 'The Second Superpower Rears its Beautiful Head'. Unpublished manuscript available at: <http://cyber.law.harvard.edu/people/jmoore/secondsuperpower.html>

¹⁷ Hamel, G. with Breen, B. (2007), *The Future of Management* (Cambridge: Harvard University Press).

¹⁸ The concept of a 'network of networks' was coined in the early years of the ARPANET. See Craven, P. and Barry Wellman, B. (1973), 'The Network City', *Sociological Inquiry* 43 (1): pp. 57-88.

¹⁹ This concept is developed in Dutton, W. H. (1999), *op. cit.*; and Dutton, W. (2005), 'The Internet and Social Transformation', pp. 375-398 in Dutton, W. H., Kahin, B., O'Callaghan, R., and Wyckoff, A. W. (eds), *Transforming Enterprise: The Economic and Social Implications of Information Technology* (Cambridge, MA: MIT Press).

information, services and other resources.²⁰ The Internet, for example, can reconfigure access in two fundamental ways.

First, it can change the way we do things, such as how we get information, how we communicate with people and how we obtain services and access technologies.

Secondly, and perhaps more fundamentally, the use of the Internet can alter the outcomes of these activities. It changes what we know, whom we know and whom we keep in close touch with. We are also using the Net to change what services we obtain, what technologies we use – and what know-how we require to use them.

New ICTs – from the book to the Web – can reconfigure access by changing cost structures, by expanding or contracting the geography of access²¹ and by eliminating or introducing new gatekeepers. New technologies can reconfigure access by giving greater or lesser control to users, viewers or readers.²²

Unintended, accidental and strategic technical choices have enabled individuals to network in Internet time and space in an infinitely malleable number of ways. Understood in this way, the development of platforms supportive of a Fifth Estate is not inevitable. Instead, it has developed over time through the unpredictable interaction of choices made by many actors with many different competing and complementary objectives.

These networks can blur the boundaries of households, organizations, institutions and nations. They enable individuals – not only institutions – to create local and global networks, as illustrated by the mobilization of political and financial support around the world for causes as varied as climate change and struggles against dictatorial state control, as we have witnessed recently in Burma. Yet, as seen in Burma, they can be suppressed if not completely silenced.

²⁰ Although reconfiguring access helps to explain how patterns of digital divides and choices can change the communicative power of individuals, groups and nations, it cannot be used to forecast the societal implications of the Internet. In fact, I have argued over the years that such outcomes are inherently unpredictable at micro and macro levels because they depend on the interaction of numerous strategic and non-strategic choices made by yourself and other actors about how you and they seek to shape access to and from yourselves and the outside world. Think, for instance, of the strategies of yourself and e-marketers as they try to get access to you over the Internet. Or think of the strategies of yourself and politicians as you seek to get access to them.

²¹ This does not make geography irrelevant. To the contrary, it makes geography more important as the Internet could enable you to be where you need to be in order to have face-to-face communication, say by enabling you to be here today because you can stay within the electronic reach of colleagues or family members.

²² Dutton (1999; 2005) op. cit.

Related Conceptions

There are alternative related conceptions to my formulation of this concept. For instance, like many, I find Jürgen Habermas' seminal idea of the 'public sphere' to be inspired, but too closely tied to a romantic view of the past, and not able to capture the rise of an entirely new sphere of influence.

The notion of an 'information commons' and its many variants is used by many others to characterize aspects of the new virtual Internet space. However, this appears to be a movement and normative prescription that is anchored more in ideology than in empirical observation of trends.²³ The Internet and Web may be packed with material that is free, but they also contain much that is owned – trademarked, copyrighted, proprietary, licensed and more. For example, the personal computer is a key component of the Internet's infrastructure²⁴, and is normally owned by individuals or organizations.

My description of this new space is naturally rooted in my social science background. But it travels across other disciplines. For instance, leading computer scientists and engineers have made similar observations. Sir Tim Berners-Lee – an Oxford physics graduate who was a key creator of the Web – and his Web Science colleagues speak of the Web as an 'engineered space' that creates a distributed 'information space'.²⁵ However, they realize that this space is being engineered by an increasingly diverse set of actors, including users, and for a wide range of purposes. And they acknowledge that many of these emergent outcomes were not those originally engineered for the Web by its designers. This has led them to call for more multidisciplinary collaboration with the social sciences.

Networked Individuals and Networked Institutions: the Evidence

By enabling a huge range of people across the globe to reconfigure their access to information, people, services and technologies, the Internet and related ICTs have the potential to reshape the communicative power of individuals and groups in numerous ways. Of course, powerful actors and institutions – not only groups – can enhance their communicative power by strategically using the Internet. This is shown by the increasing influence of companies anchored in cyberspace, such as Google, and the growing online presence of traditional Fourth Estate media giants like News International or the BBC.

²³ There are a number of projects inspired by the movement to create an information commons, such as the Free Expression Policy Project. See:

www.fepproject.org/policyreports/infocommons.contentsexsum.html

²⁴ Zittrain, J. (2006), 'The Generative Internet', *Harvard Law Review*, 119 (7), May: 1974-2040.

²⁵ Berners-Lee, T., Hall, W., Hendler, J. A., O'Hara, K., Shadbolt, N., and Weitzner, D. J. (2006), 'A Framework for Web Science', *Foundations and Trends in Web Science*, 1(1): 1-134. See: <http://www.nowpublishers.com/product.aspx?product=WEB&doi=1800000001>

But what evidence is there for the emergence of an Internet-enabled Fifth Estate that is not just a potential but, as Burke said of the Fourth Estate, a literal and momentous fact? Here, I will give a glimpse of the mounting evidence from studies at the OII²⁶ and elsewhere that is identifying patterns of use of the Internet which lend substance to the picture I am painting today of the establishment of a Fifth Estate. I will start with evidence from the particularly interesting area of the Internet's growing impacts in everyday life. Then I will move on to concrete developments in other important arenas.

Everyday Use of the Internet

We have one of Britain's most authoritative sources of information about the use of the Internet. The Oxford Internet Surveys (OxIS)²⁷, conducted every two years since 2003, involve face-to-face interviews with Britons.. Each OxIS survey is based on a multi-stage probability sample of over 2,000 individuals in Britain aged 14 and older.²⁸ We can link these with the research of over two dozen other nations through the World Internet Project.²⁹ Let me briefly identify a number of our findings related to the growing significance of the Internet in everyday life and the emergence of a Fifth Estate. These cover the widespread diffusion and growing centrality of the Internet as a place to meet people and to go for information, as well as the degree to which people trust the Internet.

Digital Choices and the Diffusion of the Internet

First, let me address the passing fad thesis. In 2000, when the OII was being conceived here at Oxford, the Internet was used by about one-third of Britons, primarily through low-speed dial-up access. An ESRC research project around that time speculated that the Internet was a fad.³⁰ Now, the resilience of the Internet is clear, as two-thirds of Britons currently use it.³¹ It is neither a technological novelty, nor are new Luddites emerging as a visible micro-trend.

However, this basic statistic defines a digital divide in Britain as about one-third of the population does not use the Internet – most of whom have never used it (only 5 percent say they used it in the past but no longer do so). This is reflected worldwide to greater or lesser degrees. Many countries in Scandinavia and North America have more of their population online, but many more have far less, such as across the global South.

²⁶ See: <http://www.oii.ox.ac.uk/research/> for details of the OII research mentioned.

²⁷ See: <http://www.oii.ox.ac.uk/microsites/oxis/>

²⁸ Unless otherwise noted, all Internet usage statistics cited in this talk are from the latest OxIS findings reported in Dutton, W. H., and Helsper, E. J. (2007), *The Internet in Britain: 2007*, p. 8 (Oxford: Oxford Internet Institute, University of Oxford). See: www.oii.ox.ac.uk/microsites/oxis/

²⁹ See: <http://www.worldinternetproject.net/>

³⁰ Wyatt, S., Thomas, G., and Terranova, T. (2002), 'They Came, They Surfed, They Went Back to the Beach: Conceptualising Use and Non-use of the Internet', pp. 23-40 in Woolgar, S. (ed.), *Virtual Society? Technology, Cyberpole, Reality* (Oxford: Oxford University Press).

³¹ 66 percent of Britons 14 years and older.

The social and economic development of nations and regions, and groups within them, is clearly a major factor shaping access to the Internet and other ICTs. Along the access divide, the economic 'haves' get more access to the Internet than the have-nots. This underpins concerns that the Internet reinforces socio-economic inequalities in society.

However, OxlS has shown that social and economic status does not explain all patterns of adoption and use. The making of what we call 'digital choices' about whether or not to use the Internet also comes into play. For instance, many people choose not to use it, even when they are not excluded (e.g. on the basis of their economic wherewithal or disabilities that would prevent them from being able to gain access). This is perhaps most evident for older people. Less than one-third³² of seniors in Britain over retirement age currently use the Internet. This is explained in large part by the digital choices made by individuals who do not find the motivation to go online when they could.

Does this divide, shaped by social and economic disparities, or cultural choices, have significant consequences for societies? Or is it simply another division of material goods, with some people consuming things, whether it is a car or game, and others not? To the degree that the Internet plays a critical role by enabling social accountability through the creation of a Fifth Estate, we can dismiss the view that this is simply another consumer product. But what is particularly interesting about the Fifth Estate is that the Internet has already achieved a critical mass, enabling networked individuals to become a significant force even though there are continuing digital divides. The existence of a Fifth Estate is not dependent on universal access.

The Centrality of the Internet

Not only has the Internet diffused widely, but it has become increasingly central to everyday life over the past few years. It has become a place to meet³³ – to renew old acquaintances and make new friends³⁴. It has also become a place to go for entertainment.³⁵ For example:

- Broadband access has become the norm, with 85 percent of Internet households accessing the Internet through broadband connections. That is well over half (56%) of all households in Britain.

³² Dutton and Helsper, op.cit., p. 11.

³³ The Internet is used for a wide range of purposes, but communication has always been central. This is shown by the key role e-mail has continued to play. More recently, and more generally, the Internet is becoming an important tool for social networking, as indicated by frequent news stories about sites like Facebook, SecondLife, YouTube and MySpace. Through these, people are meeting new people online, and then frequently meeting them in person.

³⁴ di Gennaro, C. and Dutton, W. H. (2007 forthcoming), 'Reconfiguring Friendships: Social Relationships and the Internet', *Information Communication and Society*, forthcoming.

³⁵ The Internet is also rivalling other sources – such as the traditional media, commercial enterprises and government – as the prime place to go not only for information and services but also conviviality and entertainment. The Internet is now one of the most widely-used entertainment media, increasingly for downloading music or video, playing online games, viewing television and listening to the radio.

- Internet use once varied across households, from a few times a month to several times a day. By 2007, nearly three-quarters of all users (73%) access the Internet daily – becoming a routine of everyday life.

These trends – together with moves to growing wireless (WiFi) and mobile phone Internet access – suggest that beyond its mere diffusion the Internet is becoming a critical infrastructure of everyday life.³⁶ But it is even more than that. It represents a space that is networking information and people in ways never before possible.

A Place to Go for Information

For example, the Internet is becoming the place to go for information. OxIS asked Internet users and non-users a series of questions about where they would go to first for information when undertaking a number of tasks, such as planning a trip or looking for information about a book. Would they use the telephone, personally visit some location, use a book or directory – or use the Internet?

Across these tasks, we found that the Internet was the first or second most common place that people would first choose to go for information. Among Internet users, we found that over half would go to the Internet first, whether they were planning a trip (77%), getting information about a book (67%), looking for the name of their MP (64%), getting information about taxes (55%) or looking for information about local schools (55%).

Another example of the increasing centrality of the Internet for obtaining information was the response by Internet users to a question about how frequently they use the Internet for seven particular purposes.³⁷ The Internet was used for all these purposes by a significantly larger portion of people in 2007 than in 2005. The least change was in ‘Looking for information about sports’, where only 56 percent said they looked for information online in 2007 compared to 54 percent in 2005. The greatest change was in ‘finding information about health or medical care’, where 68 percent of users in 2007 said they used the Internet to find health related information. That is up from 37 percent in 2005.

As you can see, going to what Manuel Castells calls a new ‘space of flows’³⁸ is becoming the first place to find information about matters both trivial and more serious, of everyday or once in a lifetime need. Importantly, users usually do not go to a particular place on the Internet, but rely on search engines to find information within this space of flows because what is being

³⁶ Mobile access to the Internet is at an early stage. Less than a third (29%) of Internet households have WiFi access. Fewer (21%), access the Internet via a mobile phone or personal digital assistant, such as a Blackberry. But this is growing.

³⁷ Dutton and Helsper, op. cit., p. 67.

³⁸ Castells, M. (1996), *The Rise of the Network Society: The Information Age* (Oxford: Blackwell Publishers); and Castells, M. (2001), *The Internet Galaxy* (Oxford: Oxford University Press).

looked for could be located anywhere in the world. In 2005, about one in five users (19%) primarily went to a search engine. In 2007, well over half (57%) said they would primarily use a search engine – a dramatic shift.³⁹

Why is this important? Governments, libraries, newspapers, universities, and other institutions are just beginning to realize that an increasing number of people are choosing not to come to them specifically for information, for example, but instead are going to a search engine on the Internet.

Learning to Trust the Internet

A frequent response to this is to say that people will come to us – the newspaper, for example – because we are trusted. Well, we have found that Internet users trust what they find on the Internet about as much as they trust broadcast news – and, in Britain at least, more than they trust the newspapers.⁴⁰ Generally, the more experience people have with the Internet, the more they develop what I would call a ‘learned level’ of trust in the information they can find and the people they can meet online. They remain sceptical, as they should be, and more educated individuals are relatively more sceptical, but the most distrustful are those individuals who have never used the Internet. This leads us to call the Internet an ‘experience’ technology.⁴¹ As experience online continues to build, more users are therefore likely to develop such a learned trust in the Internet. This will make the space of flows we call the Internet even more the place to go for information, for making contact with other people and finding services and entertainment.

Evidence of the Use of the Internet in Key Institutional Spheres

You can see the basis for a Fifth Estate in these changing patterns of everyday Internet use we have captured through OxIS. However, there is also evidence of complementary patterns across various other institutional arenas, such as the media, government, the workplace, education and research. In all of these, existing institutional actors are trying to use the Internet and Web in various e-initiatives designed to reinforce and enhance the effectiveness of their operations and services. In each case, a key feature is that those involved in a sphere – such as media audiences or political constituencies – can go outside their respective institutional sphere to reach alternative sources of information and services over the Internet. Let me explain through a few simple examples across a number of arenas (Table 1).

In each arena, I will argue, the Internet is crucially enabling individuals to network in new ways that reconfigure and enhance their communicative power – as a type of Fifth Estate.⁴²

³⁹ Dutton and Helsper, *op. cit.*, p. 66.

⁴⁰ Dutton and Helsper, *op.cit.*, pp. 28-29.

⁴¹ Dutton, W. H., and Shepherd, A. (2006), ‘Trust in the Internet as an Experience Technology’, *Information, Communication and Society*, 9(4): 433-51.

⁴² Institutions rooted in the other Estates are also being networked in new ways, such as through the opening of new online communication channels by print and broadcast media. In

The Press and Mass Media

I should begin with the press and media arena, as the Fourth Estate. Here the Internet has been criticized along two dimensions critical to the functioning of democratic institutions. Firstly, use of the Internet has been said to be eroding the quality of the public's information environment. It has also been criticized as threatening to undermine the integrative role of the media in society. There are two main logics behind these concerns.

Table 1. A Categorization of Networked Institutions and Individuals

Arena	Networked Individuals of the Fifth Estate	Networked Institutions of the Other Estates
Press and Media	Bloggers, online news aggregators, contributors to Wikipedia	Online journalism, radio and TV
Governance and Democracy	Web-based political movements (e.g. Moveon.org).	e-Government (government on the Web), e-democracy (e-consultation)
Business and commerce	Peer-to-peer file sharing (e.g. music downloads), distributed problem solving networks	Online business-to-business, business-to-consumer (e.g. e-shopping, e-banking)
Work and the organization	Self-employed work collaborations, open source software creation and distribution, wikis	Flatter networked structures, networking to create flexible work location and times
Education	Informal learning via the Internet, checking facts and information, teacher assessment (e.g. RateMyTeachers)	Virtual universities, multimedia classrooms, online courses
Research	Collaboration across disciplinary, institutional and national boundaries	Institutional computing services, online grant and proposal submissions

One is that the individuals who use the Internet to produce much online content are not professional journalists, but amateurs who are spewing misinformation or trivial non-information while marginalizing high-quality

addition, institutional networking is supporting strategic organizational shifts in activities such as e-commerce, e-business, e-government, e-learning and other transformational e-opportunities. There is growing overlap and interaction between these networks, with individuals in institutions participating in networks that move outside their institutions to connect to networked individuals as well as other networked organizations.

journalistic coverage.⁴³ The other is that, despite having an almost unlimited array of content at their fingertips, the users of the Internet and Web will choose to access only a narrow spectrum related to what most interests them. In the words of Cass Sunstein⁴⁴, users are ‘cocooning’ themselves, creating ‘echo chambers’ in which their own personal prejudices will be reinforced rather than challenged.

These views ignore the degree to which all communication technologies are two-edged swords, with constructive and destructive cutting edges. For instance, they dismiss some of the same weaknesses of the traditional mass media, such as the ‘if it bleeds it leads’ focus on negative news stories. More importantly, there is also often an unjustified assumption that the Internet will substitute for, rather than complement, traditional media.

The press, from the newspapers to broadcast media, have been at the forefront of efforts to use online journalism to reach their readers and viewers in new ways. About 30 percent of current Internet users say they read an online newspaper or news service.⁴⁵ In this way, the Internet may be thought to be reinforcing and helping to sustain the role of the Fourth Estate. However, almost half (49%) of those who said in 2007 that they read the news online said this was different from the newspaper they read offline. About one-fifth of Internet users are reading news online that they do not read offline.

The Internet is therefore more realistically seen as becoming a source of news that in part complements the Fourth Estate. At the same time, citizen journalists, bloggers, researchers, politicians, government agencies and more are putting information online that provides a related, but independent, source of news as a competing alternative to the Fourth Estate.

For instance, Salam Pax, the now famous ‘Baghdad Blogger’, helped to change the media agenda on the war in Iraq by using his enhanced communicative power to present to a worldwide audience a local Iraqi perspective that could not find a strong voice in the mainstream Fourth Estate, which then gave him a platform. In contrast, the press ignored a long, complex blog on the counter-insurgency in Iraq, which lent support to keeping Coalition Forces in Iraq for the time being. However, this became increasingly visible through a grassroots movement using e-mail and other blogs.⁴⁶

Democratic Politics on the Line

Parallel developments can be seen in the political arena. In campaigns, elections and democratic politics, many still view the Internet as largely irrelevant or marginal. Others argue that it is likely to undermine democratic institutions. Here are found the critics who view e-democracy primarily as an

⁴³ Keen, A. (2007), *The Cult of the Amateur: How Today's Internet is Killing Our Culture* (New York: Doubleday).

⁴⁴ Sunstein, C. R (2007), *Republic.com 2.0* (Princeton, NJ: Princeton University Press).

⁴⁵ Dutton and Helsper, op.cit., pp. 68-9.

⁴⁶ A colleague and former journalist wrote about a story called ‘The Anatomy of a Tribal Revolt’. See: <http://smallwarsjournal.com/blog/>

innovation that could erode traditional institutions of representative, deliberative democracy by providing the means for citizens to participate directly in public policy-making.⁴⁷ For example, the ability to gather and deliver signatures for online e-petitions to the UK Prime Minister has been dismissed by some as ineffectual – another supposed example of a minor technical novelty. Others worry that this initiative and other more direct forms of ‘point and click’ participation pose a real threat to deliberative democracy. However, each era has its own version of this threat, such as the way interactive cable communication raised concerns over so-called ‘push-button democracy’.⁴⁸

These fears raise genuine issues but tend to conflate two very different institutional arenas. One is an effort to use the Internet and related ICTs to enhance existing democratic institutions and processes, such as voting⁴⁹ or parliamentary consultations with citizens. This sees e-democracy as being focused primarily on supporting a more efficient and equitably ‘managed democracy’ based on traditional representative processes. The other arena prioritizes the networking of individuals to enable the public to hold all institutions of government and politics more accountable.

Critics are right to point out that most Internet users do not seek information about politics or public policy through the Internet, despite many e-democracy initiatives. For instance, 25 percent of Internet users in Britain have signed a petition, but only 7 percent have signed one online.⁵⁰ Less than 3 percent of Internet users in Britain went online to contact a politician or political party, or to donate money to or join a civic organization.⁵¹ Only a small proportion of Internet users employ the technology as a means for participating in politics or as a channel for reaching governments. This represents the Internet as being marginal to democracy and governance, even though it has become highly visible and widely used in business, entertainment, research and other areas.

However, these statistics do not expose the degree to which the Fifth Estate’s network of networks can enable political movements to be orchestrated

⁴⁷ Coleman, S. and Norris, D. F. (January 2005), *A New Agenda for E-democracy, OII Forum Discussion Paper No. 4* (Oxford: Oxford Internet Institute). See: www.oii.ox.ac.uk/resources/publications/FD4.pdf

⁴⁸ Laudon, K. (1977), *Communication Technology and Democratic Participation* (New York: Praeger).

⁴⁹ A growing group of concerned computer scientists also view the introduction of electronic voting, particularly remote Internet voting, as posing a potentially grave threat to democratic elections. One key reason is that the security of these systems and their ability to authenticate the identity of voters cannot be guaranteed. See: Simon, B. (2004), ‘Electronic Voting Systems: The Good, the Bad, and the Stupid’, *ACM Queue*, 2 (7), October (available at: <http://www.acmqueue.com/modules.php?name=Content&pa=showpage&pid=219>). This concern also stems from the ability of electronic voting to facilitate more votes on more issues at any point in time. Such threats are exacerbated in the view of the critics by digital divides in citizen access to the tools of e-democracy. As a result, the more Internet-savvy citizens – typically in the most prosperous social groups – could be in a more advantageous position to influence politics and public policy. From this perspective, the Internet poses a threat to deliberative democracy, free elections and equality of opportunity.

⁵⁰ Dutton and Helsper, *op. cit.*, p. 72.

⁵¹ *Ibid.*

among opinion leaders and political activists – all in Internet time, which can be far quicker than real-world time. This provides a novel means for holding politicians and mainstream institutions accountable through the online interaction between ever-changing networks of individuals, who form and reform continuously depending on the issue that is generating the particular network.

A dramatic example is the use of texting after the 11 March 2004 Madrid train bombings to alert people to anti-government rallies, which challenged the government's claims and contributed to unseating José María Aznar's Partido Popular (PP) administration.⁵² In the UK, on Number 10 Downing Street's e-petition site⁵³ the many signatures posted to the Prime Minister opposing the expansion of road charging schemes may not have changed policy. But it forced the Government to reconsider and explain its case for moving ahead on this issue.

Although politicians know that the public generally does not yet flock to their Web sites, they are increasingly thinking about how they can reach the online public. The Conservative Party's Webcameron⁵⁴ experiment is a move in this direction. The Labour Government has also sought to understand how to reach citizens online – going to the Fifth Estate, rather than expecting citizens to come to the government online.⁵⁵ In addition, individual political activists⁵⁶ are posting their own opinions in blogs, creating forums on their own Websites to promote political discussion oriented towards their own particular slants or creating a presence in social networking sites like Facebook or SecondLife.

Government on the Line

The same patterns are clear again for citizen access to government. Many administrations have made major strides in putting public information and services online, even though they have not generally kept up with the commercial sector. In Britain, this means citizens and businesses can go online to complete tax returns, apply and pay for some local services (such as a Control Parking Zone permit) – and much more. Important initiatives to develop e-government services are gaining momentum, for instance with much support from the European Commission⁵⁷. The growth in this kind of Internet use is evident in the way, between 2005 and 2007, OxIS found that

⁵² See: <http://info.interactivist.net/article.pl?sid=04/09/02/1821228&mode=nested&tid=12>

⁵³ The e-petition site represents a good example of a boundary-spanning case. It was organized by Number 10 Downing Street, but provides a platform for networking individuals, allowing them to set the agenda and vote on the issues. See: <http://petitions.pm.gov.uk/>

⁵⁴ See David Cameron's personal Web site at: <http://www.webcameron.org.uk/>

⁵⁵ Dutton, W.H. and Peltu, M. (2007), Reconfiguring Government-Public Engagements: Enhancing the Communicative Power of Citizens, *OII Forum Discussion Paper No. 9*. See: <http://www.oii.ox.ac.uk/research/publications/FD9.pdf>

⁵⁶ For example, Guido Fawkes (<http://www.order-order.com/>).

⁵⁷ See, for example, European Commission (2006), *i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All*, Brussels: European Commission, http://europa.eu.int/information_society/activities/egovernment_research/doc/highlights/egov_action_plan_en.pdf and the Breaking the Barriers to eGovernment project led by the OII (<http://www.egovbarriers.org>).

significantly more Britons – although still not a majority – have started to go to the Internet for information about local or central government, to pay taxes, and to learn about government policy or an MP, local councillor or politician.⁵⁸

In public, private and voluntary sectors, organizations must begin to understand that people will not necessarily go to their organization for the information or services they want – even when that organization is the responsible body. The more than two-thirds of Internet users in Britain who go to the Internet for health or medical related information are choosing this channel even if they might have been able to contact the NHS or a particular doctor or hospital about the matter. They go to the Internet where they can search a network of information distributed around the world. When they see a doctor, some come armed with ring binders full of information gathered online and all the questions that arose from their search.

Government, business and NGOs – alongside individual users – can contribute to this distributed information network. But it is becoming increasingly separate and independent from any single government department, agency, NGO, business or other entity.

For such reasons, all organizations need to consider not only how they can reconfigure services in ways that they can be provided more efficiently online. They should also identify what services and information they need to provide, taking account of what capabilities and resources they are best positioned to provide and what information is being provided well by others, including over the Internet.

Work and the Boundaries of the Firm

The Fifth Estate also has a crucial transformative potential in the workplace and the business firm and other organizations. For instance, I am currently in the early stages of a study of what my colleagues and I have called Distributed Problem Solving Networks (DPSNs). These are Internet-enabled networks that come together to solve a problem – or which solve a variety of problems when they come together. Wikipedia, for instance, was a surprising success because it has become widely used and trusted despite the continuing controversy over the relative merits of its creation through open inputs from Internet users, compared with more conventionally edited proprietary encyclopaedias. Likewise, open source software is produced by creative arrangements of distributed expertise, enabled by the Internet and Web.

Internet users not only read Wikipedia or use open source software, but are helping to produce these and a host of other products, services and information. They do this by exercising their communicative power through the network of networks. There are also similar developments in open content film production and in the gathering of health and medical information – such as a system enabling doctors to answer as well as post questions to their fellow

⁵⁸ Dutton and Helsper, op. cit., p. 73.

medical professionals in ways that generate information valuable enough for insurance and drug companies to track and pay for.⁵⁹

It is important to recognize that most firms do not choose to use these networks, as they may actually threaten to blur the boundaries and operations of the firm. Instead, physicians in hospitals, programmers in corporations, etc., are simply individually choosing to join distributed problem solving networks to enhance their own productivity, performance, or esteem. Some of you will recall how many people started to bring personal computers into the organization during the 1980s, even when it was against corporate IT policy. The rise of DPSNs could signal a similar transformation in where people go for information.

Organizations are trying to understand how such innovations can be exploited for the benefit of the enterprise as a whole, and not simply the individual user.⁶⁰ Thus, while only about one-third (34%) of current Internet users say they use the Internet at work⁶¹, there might well be a serious wider transformation already taking place in the use of the Internet at work as users go outside the firm to networks addressing their problems. This can enhance their personal productivity and provide an alternative source of information through networked individuals – another feature of an evolving Fifth Estate.

Education and Research

Speaking at a university, there is little need to provide an overview of the degree to which students and researchers are networking in ways that move beyond the boundaries of the classroom and the university. E-learning and e-research environments are being built to create virtual spaces that follow and reinforce existing institutional structures, such as with the teacher as the primary gatekeeper in a multimedia classroom or virtual learning environment (VLE). At the same time students are linking with one another and world-wide through e-mail lists, the Web and social networking sites in ways that enable them to challenge their teachers in real time, to initiate the questions guiding the class, to bring other authorities to bear on the discussion, and so forth. This can be a positive force or a disruption in the classroom and the university, depending on how prepared we are to harness these Internet-enabled learning networks.

Likewise, universities are building campus grids, digital library collections and institutional repositories to maintain and enhance the productivity and competitiveness of the institution – but researchers are also likely be collaborating more than ever before⁶² in ways not possible without Internet-enabled networking, often across institutional and national boundaries. They

⁵⁹ See, for example, the system called Sermo, created for licensed physicians in the US, at: <http://www.sermo.com/>

⁶⁰ For example, see: Hamell, op. cit., and Tapscott, D., and Williams, A. D. (2006), *Wikinomics: How Mass Collaboration Changes Everything* (New York: Penguin Group).

⁶¹ Dutton and Helsper, op. cit., p. 43.

⁶² Wuchy, S., Jones, B. F., and Uzzi, B. (2007), 'The Increasing Dominance of Teams in Production of Knowledge', *Science*, Vol. 316, (May 18): pp. 1036-39.

are more likely to go to an Internet search engine before they go to their library, as likely to use their networked personal computer to support network-enabled collaboration than meet their colleagues in the next office, and post their work on their Web sites and blogs rather than in institutional repositories. Universities have spent millions on systems to support collaboration, such as for multi-point video conferencing⁶³, but YouTube, Facebook and other social networking sites readily available over the Internet offer tools for collaboration that are arguably more powerful.

Academics themselves mobilize around local issues, such as university governance, as well as more international issues like copyright through mailing lists, Web sites and blogs. Even in academia, there is an emerging Fifth Estate, enabled by the Internet, providing checks and balances on the more established academic institutional structures. As an individual academic, for example, I view myself as accountable to the faceless blogosphere of fellow academics as I do to the anonymous reviewers of my work submitted to journals.

Ensuring the Vitality of the Fifth Estate

Across many arenas, the Internet is becoming not only a new source of information, but also a platform for networking individuals in new Internet-enabled groups that can challenge the influence of other, more established, bases of institutional authority. It is not a utopian fantasy.

Moreover, it is robust. As discussed, it can flourish despite a digital divide in access. And it can be a significant force even though only a minority of users are actively producing material for the Internet, as opposed to simply using it. For example, only about 28 percent of current users even post pictures on the Internet. Less than one in five use a distribution list for e-mail (19%), post messages on discussion boards (16%), try to set up a Web site (16%) or maintain a personal Website (15%).⁶⁴

However, the role of the Internet – and of networked individuals – is not uniformly positive. The gates the Internet opens to allow in those aspects of the outside world of benefit to the user also bring in those causing harm by intent or accident, including spammers, fraudsters, pornographers, bullies, terrorists, and more. Just as environmental or positive political movements can exploit the Internet, so can extremist groups establish a strong Internet presence as a resource for recruiting, funding and magnifying their images. The list is growing.

Although these problems can be offset by a similarly long list of actual and hyped advantages enabled by the Internet, the thrust of the critique remains – that the Internet can empower the malicious in addition to the well intentioned. This has led increasingly for calls from citizens, governments, business and others to introduce online gatekeepers and other controls to govern what was

⁶³ The Access Grid is one major initiative. See: <http://www.accessgrid.org/>

⁶⁴ Dutton and Helsper (2007), op. cit., 61.

originally conceived by the Internet's designers as an open, end-to-end network with minimal central control, particularly in allowing a free flow of content⁶⁵.

Governance of the Fifth Estate Space

Policy makers and others concerned with fair and effective democratic governance will need to investigate how many relevant issues of Internet governance can affect the Fifth Estate. This includes topics that have become well understood in other Estates, such as media ownership and concentration and protection of the rights of minorities. Freedom of expression is a critical aspect of a Fifth Estate role. This could require a right to anonymity, which is under threat by some initiatives – but not all -- aimed at better authenticating the identity of users. The vitality of Internet-enabled Fifth Estate networks rests less on new policy initiatives since its emergence than on preventing over-regulation or inappropriate regulation of the Internet.

Questions about the governance of the Fifth Estate are likely to become more prominent as people realize that the Internet is a social phenomenon with broad and substantial societal implications. Appropriate forms of governance of social and political processes – not just technical Internet and infrastructure aspects – will be required to ensure public debate and accountability are enhanced in this network of networks, which encompasses a wide ecology of actors.

Of course, the Fifth Estate could undermine institutions, impose an ideological consensus that can quash debate, or become a conservative force by establishing ever more checks and balances. An intriguing avenue to explore could be to seek to hold Internet users more accountable through the development of innovative approaches to using the Fifth Estate's Internet-enabled networks to regulate itself, such as seems to be developing through what some have called the 'peer production of Internet governance'⁶⁶. These are typified by self-governing processes developed for successful novel online applications, such as Wikipedia and the eBay online auction service, where users participate in establishing and monitoring governance rules. These could stimulate ideas for approaches to governance of the space of flows in ways that protect the Fifth Estate.

Summary and Conclusion

My conceptualization of the Fifth Estate builds on the depiction by Manuel Castells of the Internet as creating a space of flows, in contrast to a space of places. When you 'go to' the Internet, you enter this new space of flows that connects with people and places. This is dramatically different from a physical place, such as this hall. Both are important. Both serve major social roles in

⁶⁵ Dutton, W. H., and Peltu, M. (2007) 'The Emerging Internet Governance Mosaic: Connecting the Pieces', *Information Polity*, 12: 63-81.

⁶⁶ Johnson, D. R., Crawford, Susan P. and Palfrey, J. G. (2004), The Accountable Net: Peer Production of Internet Governance, *Virginia Journal of Law and Technology* 9(9). See: <http://ssrn.com/abstract=529022>

shaping the quality of our information environment. They complement one another, such as in distributing the text of this lecture through the Web.

This space of flows enables a multitude of actors to reconfigure access to information, people, services and technologies. In this space, they can reinforce existing institutions, such when the press move into online journalism. They can also enable individuals to be at the centre of their own personal networks, as when a teenager collects thousands of recordings. However, they can also network individuals in ways that can provide an independent source of social accountability across multiple arenas – a Fifth Estate.

A key implication of this for society at large is that the Internet can be used to increase the accountability of the other Estates, for instance by being used as a check on the press. It can also be deployed as an alternative source of authority and as a check on other established positions of authority, such as politicians, doctors and academics, by offering alternative sources of information, analysis and opinion to citizens, patients, and students.

In conclusion, you may have noted that I have not pursued the argument that the growing centrality of this network of networks is enabling a new 'information' or 'network' society. Instead, I am making the more modest – but less conventional – claim that through the space of flows, the network of networks, the Internet is enabling the development of a Fifth Estate that is enhancing the accountability of many sectors across all societies, from Burma to Britain, and from the press office to the classroom. These Internet-enabled networks of the Fifth Estate need to be identified and better understood if they are to be protected and fostered in the coming decades as a means for realizing the growing potential of the Internet.

Thank you.