Imagining the Internet
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The Internet packs a punch in the evolution of institutions:
Most experts surveyed in Pew Internet/Elon University study
say new tools for networking are transforming bureaucracies

A survey of nearly 900 Internet stakeholders reveals new perspectives on the way the Internet is affecting human interaction and the evolution of businesses and governments.

The web-based survey, conducted by the Pew Research Center's Internet & American Life Project and the Imagining the Internet Center at Elon University, gathered opinions on 10 important issues from a select group of experts and the highly engaged Internet public. Results from this survey are being released in four major 2010 reports. The first came out in February; this second report outlines expert responses to the sixth survey question, in which people were asked to share their views of the Internet's influence on the future of institutional relationships between now and 2020. *(Details about the report on the initial five questions can be found here: http://www.pewInternet.org/Press-Releases/2010/Future-of-the-Internet-IV-AAAS.aspx. Two additional reports on the survey data will be released later in 2010.)*

One of the long-running hopes of technology supporters is that the Internet and cell phones will bring positive change to institutions of all kinds. Pew Internet director Lee Rainie and co-author Janna Anderson, director of the Imagining the Internet Center, asked this survey question to assess those hopes.

"Most people who took the survey believe the Internet will force change in institutions, no matter how resistant they are," Anderson noted. "Many said there is too much pressure from the public in today's age of collective intelligence and transparency for institutions to be able to continue to cling to 20th century forms. However some people shared concerns that entrenched institutions will find ways to maintain the status quo or to exercise new controls."

While 72 percent of survey participants agreed that innovative online cooperation will result in more efficient and responsive bureaucracies, most people hedged their answers, noting, for instance, that change will be varied and in some cases the rate of change will be slow. Some of the 26 percent who expressed pessimism about the advancement of institutions said communications networks and new digital tools give entrenched institutions new abilities to control and track people.

Here is a sampling of respondents' remarks:

Jeff Jarvis, *prominent blogger and a professor at the City University of New York*
"We are seeing many of these institutions and industries crumble and rise again from the ashes in new forms. What is happening to newspapers will happen to retail, advertising, many sectors of manufacturing, education, and government. There is no going back. There is no protecting the past."

Stowe Boyd, *leading technology strategist, writer, promoter*
"Businesses (and to a lesser extent, government) will wise up to the fact that the strongest motivations online are extra-market: not directly related to money, income, or costs. This will shake up notions of marketing in fundamental ways."

Peter Norvig, *Google Research director*
"It has already started, and other institutions will be forced to offer similar features to keep up. The remaining battlefield will be in countries with repressive, controlling regimes: will they open up to compete with freer countries, or clamp down in an attempt to prevent their citizens from seeing what is going on elsewhere?"

Doc Searls, *co-author of "The Cluetrain Manifesto"*
"Institutions that adapt to the Net's cooperation-encouraging technologies and functions will succeed. Those that don't will have a hard time. Having it hardest right now are media institutions, for the simple reason that the Internet subsumes their functions, while also giving to everybody the ability to communicate with everybody else… Even where the shapes of institution persist, their internal functions must be ready to listen, and to participate in the market's conversations, even when those take place outside the institution's own frameworks."

Dylan Tweney, *senior editor, Wired magazine*
"Bureaucracies being inherently conservative, this change will happen slowly – much more slowly than the opening-up of data. The result will be that in 2020, companies' customers will know far more about the companies than the companies do themselves. And citizens will know far more about governments than the government officials. This will lead to political and market tensions that will play out over many years."

Axel Bruns, *associate professor, Queensland University of Technology*
"Ultimately, I think that popular pressure will win the day, and the very inertia of many large institutions leaves them vulnerable to user-generated change which moves too quickly for them to react to. What we are likely to see will proceed from the grassroots, I think – in politics, from small, mobile, and possibly local organisations; in business, from a changing mix of start-ups and networked organisations; in the non-profit sector through loose alliances of like-minded groups. I don't quite know where all of this will lead, yet, but I like Pierre Lévy's formulation of 'molecular democracy,' and I think we might well see that idea filled with life."

Susan Crawford, *former member of President Obama's National Economic Council*
"Having just spent some time in government, I'm less optimistic about the possibilities for change than I used to be. It takes a very long time for entrenched interests to be open to paradigm shifts, and I'm afraid to say that our era is one of great entrenchment – at least in government. No matter how much information is online and available, there will still in 2020 be some small circle of men who will be hanging on to all the levers. For years to come, they'll give lip service to openness (and they will commit to better customer service), but they won't actually change their ways. Ask me again in 2020."

Anthony Townsend, *research director, Institute for the Future*
"Institutions are good not just at resisting change but at structuring it. Don't underestimate the social inertia provided by legal systems."

Barry Wellman, *online communities expert, University of Toronto*
"Institutions know how to protect themselves."

Oscar Gandy, *emeritus professor, University of Pennsylvania*
"As they say, change is the only constant, and we have already seen considerable change in the ways in which institutions relate to individuals; it is just not clear that efficiency or responsiveness is what we will see. Just think about automated telephone systems for customer service: Is that responsiveness?"

Glen Edens, *former director at Sun Microsystems Labs, chief scientist Hewlett Packard*
"Having been a senior executive at some of America's largest corporations I am convinced that model is ultimately doomed. An entity that lasts forever and grows forever is just not possible and is silly anyway. It is a waste of resources. Society deserves a better model for the organization and deployment of resources to provide products and services… The big question is how do corporations gracefully end? How can we break the cycle of Wall Street – a strong financial services industry is simply not good for society. Wall Street does not improve productivity, the model is parasitic, transferring huge resources out of the system. I am looking forward to the next phase of the industrial revolution."

Jamais Cascio, *Institute for the Future and Institute for Ethics and Emerging Technologies*
"Online tools will change how we use governments/businesses/etc., but won't necessarily result in better efficiency and more responsiveness. Rather, the willingness of those institutions to employ online tools will be proportional to the increased control they have over the interactions with stakeholders."

Jim Warren, *longtime tech entrepreneur and activist*
"The two *major* deterrents and dangers I see are (a) the zeal for knowledge control – both access and content – by the would-be information conglomerates, and (b) both corporate and government frenzy for choking timely public access to adequate information on which to make sound decisions about our own businesses, governance, and lives."

Andy Oram, *editor and blogger, O'Reilly Media*
"The widespread sharing of information and ideas will definitely change the relative power relationships of institutions and the masses, but they could move in two very different directions. In one scenario… the ease of whistle-blowing and of promulgating news about institutions will combine with the ability of individuals to associate over social networking to create movements for change that hold institutions more accountable and make them more responsive to the public. In the other scenario, large institutions exploit high-speed communications and large data stores to enforce even greater centralized control, and use surveillance to crush opposition. I don't know which way things will go… I tend toward pessimism."

Ginger Paque, *educator at Diplo Foundation*
"There may be new ways for citizens, clients, and others to give input, but the institutions will have to find ways to process the information and incorporate it. If the difficulty one has to find the 'contact us' icon on many websites is any indication, not all institutions want more communication."

Dave Rogers, *web designer and developer at Yahoo!*
"The Web's ability to help non-profits is only beginning to develop in such movements as Kiva and Donorschoose. They will remain more interesting and effective than commercial or political/governmental endeavors precisely because non-profits are non-profit. Which brings us to the commercial world. Don't expect anything to improve or change the relationships between corporations and consumers. As long as profit trumps all other responsibilities of corporations, their Internet presence will always be self-serving and duplicitous."

Karl Auerbach, *chief technology officer, InterWorking Labs, Inc.*
"I find the erosion of our abilities to engage in critical thinking and non-inflammatory discourse to be disquieting. It seems as if electronic communications cause us to lose our ability to look past errors of expression and to treat one another as humans worthy of respect. We are in an era in which the concept of the nation-state as bounded by geographic limits is eroding. Nations are losing the clarity of where their sovereign powers begin and end or who exercises powers over matters that cross geographic boundaries. The powers are not disappearing but are, instead, flowing into bodies, often corporate but also often quasi-non-governmental, such as ICANN, that are not constructed on the lessons that were so hard-learned during the 18th and 19th centuries regarding

the allocation and control of authority. The Internet needs to re-learn Madison and Jefferson, Voltaire and all the rest of the people who wrestled with these questions back then."

Stephen Downes, senior research officer, *National Research Council, Canada*
"By 2020, the changing nature of these institutions will have become clear, and we will be well into the process of replacing industrial-age institutions with information-age ones. It won't even make sense to talk of these institutions as 'efficient' or 'responsive' – these are economists' terms presuppose a client-server model of governance. But by 2020, it will be clear that people are governing, managing, educating, and supporting themselves, not waiting for some institution to be 'effective' or 'responsive' to these needs."

Daniel Flamberg, *blogger at iMedia Connections*
"Inertia, bureaucracy, entrenched interests, siloed structures, and a lack of leadership will ensure that government and probably business will lag in the adoption of online cooperation. A handful will break out and set the precedents but most will take a wait-and-see posture so that the effectiveness and efficiency that the Internet can potentially bring will not be fully realized by 2020."

Many additional thought-provoking responses to the question on institutions and to the first five survey questions can be found **at http://www.pewInternet.org and http://www.elon.edu/e-web/predictions/expertsurveys/2010survey/default.xhtml.**

The Imagining the Internet Center (www.imaginingtheInternet.org) is an initiative of Elon University's School of Communications. The center's research holds a mirror to humanity's use of communications technologies, informs policy development, exposes potential futures and provides a historic record. Among the spectrum of issues addressed are power, politics, privacy, property, augmented and virtual reality, control and the rapid changes spurred by accelerating technology. Imagining the Internet has teamed with the Pew Internet Project to complete a number of research studies under the direction of Janna Quitney Anderson, associate professor of communications.

The Pew Research Center's Internet & American Life Project (http://wwwpewInternet.org) is a nonprofit, non-partisan "fact tank" that provides information on the issues, attitudes and trends shaping America and the world. It produces reports exploring the impact of the Internet on families, communities, work and home, daily life, education, health care, and civic and political life. It is one of seven projects of the Pew Research Center, a nonpartisan, nonprofit organization.