

## Obama's Online Opportunities

### What Our Research Suggests about where President-elect Obama's Technology Policy May Lead

By John B. Horrigan, Associate Director for Research, Pew Internet & American Life Project

There is no shortage of suggestions to the incoming Obama administration about what to do about communications policy in the United States. America's middling standing in world rankings on broadband adoption has served as a call to arms for the new administration to develop a national broadband strategy to boost the economy, aid the environment and improve delivery of health care and government services.

The body of research from the Pew Internet Project, dating to 2000, indicates that online Americans might have one more suggestion: Make sure the internet remains a place where users define what it means to be digitally connected. To help understand what that means for policymakers, let's first review how user behavior has evolved in the past decade.

In the 1990s, the promise of advanced networks had to do with *one-to-many communication*. That is, applications such as distance education or telemedicine would connect a single expert to a far wider audience than was previously possible; high-speed networks would deliver this to the home. In this vision, users benefit from information flows, but are not central actors in the information commons.

As the information superhighway developed, this one-to-many vision did not take root. Part of the reason is that high-speed networks to the home did not roll out as quickly as some had hoped. Another part of the reason is that many internet users were not content simply to consume information pushed at them by recognized experts (for instance, doctors, teachers and media companies). Instead, user behavior took online life in another direction. When, in the late 1990s and early 2000s, Americans started to access the internet at home using dial-up connections, *many-to-many communication* was an anchor of online life. In 2001, the Pew Internet Project found that 23 million adults were active participants in some sort of online community, whether that pertained to their neighborhood or work lives.<sup>1</sup> In spite of the slowness of dialing into the internet, some 20% of online users made the effort several times a week to converse with others about topics of common interest.

Then came the third stage of online evolution: blogging. Something as simple as a webpage that recorded the thoughts and experiences of a writer, or group of writers, spurred *many-to-many societal conversations* about a range of topics. Although 2004 might have been the year of the blog, with its assimilation into political discourse, politics was just the tip of the iceberg for the range of blog-driven online conversations fostered by the phenomenon.<sup>2</sup> Most bloggers were discussing their personal lives and experiences, not posting about politics or critiquing mass media coverage of public events.

Today, home broadband adoption, combined with the prevalence of mobile access to the internet (whether using a laptop or a handheld device), is ushering in the fourth era of *many-to-many collaboration* among technology users. Want to know what is going on in Mumbai? Where is flu season getting underway? Users, as much as traditional sources of news and information, often shape how people come to understand events worldwide.

The common denominator in this evolution is innovation by the user -- the capacity of people to do things with online access that designers of communication hardware and software do not expect. To be sure, more powerful gadgets and faster, more widely available networks are enablers to this process. But turning users loose to find ways to use communications capacity is the animating principle for innovation in the digital society.

What does this lesson about user co-creation suggest about how the new administration might approach internet policy? Here are two ideas that emerge from our surveys.

### **Openness in Wireless**

The Pew Internet Project has found that 42% of cell phone users, on the average day, use their device for a non-voice data application. The most frequent users of these applications are found in minority groups -- African Americans and English-speaking Hispanics. This diversity in the user base suggests there could be a distinct brew of creativity as people tinker with wireless applications in unexpected ways.<sup>3</sup> This suggests that users would appreciate policies for wireless devices and networks that keep the gadgets and their connections open to outside innovation. In the private sector, several firms embrace this. For instance, Google's Android project is committed to allowing outside application developers to have access to its devices, and Verizon has made a commitment to allow outside developers to create applications for Verizon's devices.

These moves show that many industry actors believe there are benefits in being open to user innovation. Technology-users behavior suggests that they would take advantage of policies that make sure openness is one of the rules of the wireless road -- whether that takes the form of formal rules or watchful oversight of an industry that is moving toward openness on its own. In the technology community, there is a widely-held belief that such openness can give voice to a diverse set of tech users who were not early adopters of the traditional wired internet.

### **Understanding the Disconnected**

Some 75% of Americans are internet users (66% with access from home) and 57% have broadband at home. That leaves 9% of American internet users with dial-up access at home and 25% of Americans without access at all. There are several reasons why adoption gaps exist:

- People can't get broadband where they live.
- Information technology is hard for them to use.
- Modern gadgets and services aren't relevant to them.
- People can't afford access (either broadband or dial-up).<sup>4</sup>

We heard from experts in a workshop we conducted in the summer of 2006 that better measurement of communications infrastructure could address the first problem.<sup>5</sup> In October, the Broadband Data Improvement Act was signed into law, which calls for better data collection on broadband by both the Federal Communications Commission and the Commerce Department. The FCC has also ordered carriers to report by Census tract how many people use broadband and at what speeds. Both these initiatives are aimed at generating better information to policymakers and consumers about the availability and quality of service. How they are implemented will ultimately determine their usefulness and that is a key task for the new administration.

Addressing usability of technology and its relevance to some adults are different kinds of challenges. The technology industry is the main actor here. On the one hand, the industry has ample incentives to improve usability and enhance the relevance of digital content to people's everyday lives. Yet the fact remains that the nature of modern gadgetry is daunting to many people, especially older ones.<sup>6</sup> Many respondents to our surveys tell us they would appreciate a hand in mastering technology and the Obama tech team might decide that government can play a catalytic role in nudging industry to improve usability and relevance through procurement.

In his campaign and during the transition, Obama has promised that e-government services will continue to be expanded and upgraded. As this is done, his team might consider guidelines for contractors serving less tech-oriented population segments. Not only will this widen the scope of efficiencies e-gov may bring about, but our research suggests it could also draw some Americans into deeper engagement with communications technology and its social benefits.

Amar Bhidé at Columbia Business School has written *The Venturesome Economy*, in which he argues that the willingness of American consumers to try new things is a source of our innovative culture. In a broadband and increasingly wireless internet, it is not just about trying new things, but, for many users, also reworking and using them in new ways. Our research into internet use suggests that maintaining such an online environment will give users the wherewithal to continue to innovate and surprise.

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<sup>1</sup> John B. Horrigan, "Online Communities: Networks that nurture long-distance relationships and local ties." Oct. 31, 2001. Available online at: [http://www.pewinternet.org/PPF/r/47/report\\_display.asp](http://www.pewinternet.org/PPF/r/47/report_display.asp). Active participants were defined as those who said they emailed an online group at least several times per week.

<sup>2</sup> Amanda Lenhart and Susannah Fox, "Bloggers: A portrait of the internet's new storytellers," July 19, 2006. Available online at: [http://www.pewinternet.org/PPF/r/186/report\\_display.asp](http://www.pewinternet.org/PPF/r/186/report_display.asp). This report found that 11% of blogs devoted themselves to politics, while 37% focused on the bloggers' life experiences.

<sup>3</sup> John B. Horrigan, "Seeding The Cloud: What Mobile Access Means for Usage Patterns and Online Content," March 5, 2008. Available at: [http://www.pewinternet.org/PPF/r/245/report\\_display.asp](http://www.pewinternet.org/PPF/r/245/report_display.asp).

<sup>4</sup> John B. Horrigan, "Home Broadband 2008: Adoption Stalls for low-income Americans even as many broadband users opt for premium services that give them more speed. July 2, 2008." Available online at: [http://www.pewinternet.org/PPF/r/257/report\\_display.asp](http://www.pewinternet.org/PPF/r/257/report_display.asp).

<sup>5</sup> Kenneth Flamm, Amy Friedlander, John B. Horrigan, and William Lehr, "Measuring Broadband: Improving Communications Policymaking through Better Data Collection," Nov. 17, 2007. Available online at: [http://www.pewinternet.org/PPF/r/227/report\\_display.asp](http://www.pewinternet.org/PPF/r/227/report_display.asp)

<sup>6</sup> John B. Horrigan, "A Typology of Information and Communication Technology Users," May 6, 2007. Available online at: [http://www.pewinternet.org/PPF/r/213/report\\_display.asp](http://www.pewinternet.org/PPF/r/213/report_display.asp).