

Keeping the Internet's Promise: Universal, Open and Safe

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Looking back on 2009, it is clear that telecommunications policy worldwide is in a potentially valuable and far-reaching period of change, as governments consider the most effective role they can play in spreading broadband technologies and connecting their citizens to the Internet.

Approaches to connectivity vary across developed and developing economies. Singapore has developed a plan for a heavily regulated next generation network that will be divided into at least four tiers. Australia is weighing the feasibility of a government-financed fiber-to-the-premises network, which aspires to connect 90 per cent of its homes and businesses, but would require an investment of US\$34 billion. The United Kingdom's 'Digital Britain' report, released in June 2009, seeks universal broadband access by 2012 and also recommends a tax on phone lines to pay for extending advanced networks to areas that are unlikely to receive commercial service. In the United States, the Federal Communications Commission has embarked on an expansive process to develop a National Broadband Plan to be delivered to Congress in March 2010.

Despite the different paths these countries may choose to meet their own particular market facts, they are all seeking to strengthen their citizens' national and international sense of community by delivering next generation Internet connectivity to all. Importantly, the goal of connectivity extends beyond national borders. As the Internet Governance Forum has noted, it is vital that governments and nongovernmental groups consider 'ways and means to accelerate the availability and affordability of the Internet in the developing world' (<http://www.intgovforum.org/cms/index.php/aboutigf>). The international community recognizes, among developing and developed economies alike, the profound importance of inclusiveness through connectivity to the Internet and high-speed deployment.

In this way, broadband serves as a great unifier, an agent of inclusiveness that brings Internet users from all corners of the world into a single online community that

can widely deliver new opportunities. The global inclusiveness brought by broadband connectivity is essential for achieving broad societal goals by helping to build stronger economies, facilitate more efficient use of resources to foster environmental sustainability, deliver better health care and empower individuals with a greater ability to communicate, exchange information and access educational resources.

First, focus on broad goals. Do not gear policy toward specific technologies.

In addition to connectivity and inclusiveness, policy must seek to ensure that users have a quality experience when online. Users will benefit if policy makers take a holistic approach to broadband policy. Just as each component of a network has an effect on other pieces, every decision that governments make about broadband and the Internet will shape the broader digital society that is now emerging around the world. An Internet that truly works for everybody must be universal, open, respect individual privacy and be safe for all users.

By universal, I mean that broadband service must be available and affordable to consumers everywhere. When all are connected, all can share the benefits made possible by this unique 'many-to-many' platform that we call the Internet.

Openness means an Internet ecosystem that enables users to exchange ideas and communicate freely; connect to the lawful applications and content of their choice; and select the service and equipment packages that best meet their needs. It also means that content providers, network operators, search engines, websites and other Internet participants promote interoperable platforms and technologies in order to innovate with new products, ideas and business models that provide more choices to consumers.

Providing a safe experience and protecting users' privacy and personal data must also be high priorities. Sadly, the Internet's benefits can be placed at risk by cybercrime, phishing, viruses, spamming and other harmful behavior. Because global networks are linked and freely cross national borders, fighting these online threats requires the same level of international cooperation that is needed to fight

Second, listen to consumers and embrace broadband diversity.

disease pandemics. Online users are also concerned about privacy and increasingly expect greater control over the way online service providers and websites use personal information.

While these goals are widely shared, there is less agreement on the best way to achieve them. As a company committed to continuing to build a better Internet, here are AT&T's guiding principles.

In the drive for universal connectivity, policy makers would be wise to focus on broad objectives rather than pursuing goals that are tied to a specific technology or flavor of broadband service. History tells us the difficulty of knowing which technologies will succeed in the long term and which will fade. Experience in Texas offers a cautionary tale. Convinced that Integrated Services Digital Network (ISDN) was *the* broadband technology of the future, the state's public utility commission in the early 1990s required the incumbent phone company to make ISDN available to all of its customers. Today, if we remember ISDN at all, we know it to be a slow, expensive and obsolete technology that few people ever adopted. In the end, the mandate for ISDN just wasted money and resources without benefit to consumers.

In truth, there simply is not one type of broadband that fits every consumer's needs. Rather, broadband is a range of capabilities that consumers use for the specific features or services they want. A utility using smart-grid technology may only require a low-speed wireless connection to keep tabs on network activity. A doctor reading medical images in real time needs a high-resolution transmission that is secure against disruption. A movie fan may insist on a very high-speed connection for rapid download of a new film. Other users may place the highest value on mobility. In effect, each broadband user is an individual market that is best served by different types of broadband.

Policy makers should listen to consumers and embrace broadband diversity. In other words, they should take their cue from Internet users and the way they actually use broadband. Rather than prescribing to users, policy makers should create an environment that embraces the widest range of broadband technologies, encourages interoperability and promotes investment of private sector dollars to deliver the solutions that users prefer. Given the right environment, private money and creativity will push technology forward.

For hard-to-serve areas, which in the United States comprise about 10 per cent of the population, government subsidies and creative public/private partnerships may be necessary to ensure that broadband is available to all. Other countries such as Australia face the similar challenge of bringing service to vast land areas that are home to relatively small populations. At the same time, the private sec-

tor should remain the driving force for investment and innovation to serve the vast majority of users who live in areas where broadband is spreading successfully without special assistance.

Policy makers need to facilitate innovation in order to reap its natural benefits. Sometimes, less is more. As a former policy maker, I understand the motivation for decisive action and programs that attack challenges aggressively. But the best way to encourage innovation is a policy framework that opens the door to input from

Third, facilitate innovation and reap its natural benefits.

users, and allows individuals and businesses alike to try new ideas and new ways of doing business.

It is the inclusiveness brought by connectivity that drives innovation, and policy makers should take care that well-intended laws and regulation do not unintentionally limit the ability of innovators, both individual and corporate, to invest and create new products.

Transformative technologies, like the Apple iPhone and Amazon's Kindle book reader, exemplify the type of innovation that is possible when governments resist prescriptive regulation that insists on certain types of business models. Some have commented that the iPhone was specifically designed to run on certain networks and others are unhappy that Kindle uses proprietary technology that only downloads books in a format designed by Amazon. But the business strategies that produced these breakthrough

Fourth, enable wireless technologies.

devices also generate enormous spin-off benefits to consumers as competitors respond with their own competing products. This competi-

tion has unleashed a cycle of innovative one-upmanship and response that is delivering lower prices and better products for consumers.

Similarly, the exploding marketplace for iTunes Apps, a phenomenon created and driven by the vision and ingenuity of Internet users and individual innovators, illustrates the beneficial power of an inclusive and diverse user community. Appropriate regulation that empowers Internet users enables all to benefit from the collective imagination of the online community.

Perhaps the most exciting recent development in broadband connectivity is the accelerating pace of wireless innovation. In addition to offering new applications and portability that wireline services simply cannot support, mobile broadband has the potential to bring connectivity to geographically remote areas where no wired services currently exist and might be more expensive to deploy. In these circumstances, wireless also might enable emerging economies to enter the broadband age more rapidly.

Further, consumers everywhere seem to love mobility, which frees them from the tether of the desktop computer in much the same way that Internet-enabled broadband

has freed all of us from many of the limits historically imposed by geography and distance.

In short, given its potential literally to connect every man, woman and child around the world, the development of the Internet may be one of history's most transformational events. But for policy makers, as well as network operators, building the right kind of Internet poses challenges that are almost as numerous as the bene-

fits connectivity brings. Ultimately, policy makers should be guided by a vision of an Internet that is universal, open, protects personal privacy and is safe for users. Private companies, policy makers and other participants in the Internet ecosystem need to find ways to spread broadband so that it links the world and helps fulfill the Internet's full promise.