

**PREPARED REMARKS OF FCC CHAIRMAN GENACHOWSKI  
“THE GLOBAL INTERNET AT A CROSSROADS”  
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It is a privilege to be here at CFR. Thank you to CFR for hosting me, and to Dan Prieto for moderating.

Let me start with one provocative sentence from Jeffrey Sachs of Columbia University. He said recently: “The information and communications technology revolution is surely the most powerful single force for economic development in the world today.”

I’ll talk about that today, about the enormous opportunities the broadband revolution is creating.

I’ll also talk about the dangerous fact that the global Internet is at a crossroads. Threats to the future of the Internet have never been more serious, and if we don’t tackle these threats, the U.S. and other nations will pay the price in the form of lost economic growth and development, stifled innovation and social progress, and diminished opportunity. I’ll describe those threats, and talk about what needs to happen for us to keep the global Internet on the right path, to harness the opportunities of new communications technologies to benefit all people.

There’s a lot that’s new about the relationship between communications technologies and world events.

But in some important ways, the relationship between communications technologies and world history has always been a profound one. The printing press was a new communications technology that changed the world. I won’t take us back that far, but for a few minutes I will take us back fifty years, to a powerfully important speech given by an FCC Chairman in 1961.

That May, John F. Kennedy’s pick as FCC Chairman, a 35-year-old named Newt Minow, spoke to the nation’s broadcasters. His speech is generally remembered for the declaration that TV had become a “vast wasteland.”

But the speech – and I recommend reading it – was actually about much more, and its core insights provide enduring lessons.

Newt Minow spoke in May 1961 about the new communications technologies of his day – broadcast TV, what we now call cable TV, and satellite communications.

His overriding message was that these technologies offer new opportunities to do good, and to do the opposite. He said our obligation was to seize the positive opportunities of new communications technologies – to harness the power of technology for the benefit of all people – to advance the cause of prosperity and freedom – to educate and inform – to help our children fulfill their potential; to help our great nation to a bright future.

And to do these things at home, and around the world.

Newt Minow spoke of, “the technological knowledge that makes it possible, as President [Kennedy] has said, not only to destroy our world but to destroy poverty around the world.”

His speech explicitly imagines a future where new communications technologies will tie together “Indiana and India,” “Chicago and the Congo”.

That speech, Newt Minow’s insights, were inspirational to me when I first read them about 20 years ago, and they help inform today how the FCC thinks about today’s new communications technologies. And the primary new communications technology today is broadband Internet.

Let’s start with the opportunities.

The benefits already being delivered by wired and wireless broadband are nothing short of extraordinary.

We see it here at home.

It’s no exaggeration to say that high-speed Internet is reshaping the U.S. economy. We can hardly imagine a world without Google, Facebook, Twitter, Amazon, Wikipedia – without email, texting, or the app stores people are using to download 100 million apps a day.

Broadband is also transforming education, enabling distance learning and interactive digital textbooks, which is why Education Secretary Arne Duncan and I have set a goal of equipping every American student with digital textbooks by 2017. It’s revolutionizing health care with remote monitoring, remote diagnostics, and digital health records. Energy. Public safety. Government performance and elections. You name it – broadband is already a game changer, and we’re still in the early innings.

This is known around the world, and when I meet my international counterparts, in every region of the world they are focused on the opportunities of broadband. They each want to become 21<sup>st</sup> century hubs for broadband-related innovation.

And in today’s flat global economy, where capital can flow anywhere and innovators can work anywhere, U.S. leadership is not a given. It’s something that has to be earned anew every day. And U.S. broadband leadership is particularly vital as developing countries grow and the middle class expands around the world. These are good developments, but we should embrace them as a spur to focus on our global competitiveness, to ensure that we have world-leading broadband infrastructure, to ensure that tech-related capital and talent continue to flow here, to ensure that we are the world’s leading innovation economy for the 21<sup>st</sup> century.

There is good news. Over the past four years, the U.S. has regained global leadership in key areas of the broadband economy.

Take mobile. We’ve moved from laggard to leader. Four years ago people were talking about mobile innovation in Asia and mobile infrastructure in Europe, and describing the U.S. as a backwater.

Today, the U.S. is the clear world leader on mobile innovation. U.S. companies invented the apps economy, and in four years the percentage of mobile devices globally with U.S.-made operating systems has grown from 20% to 80%.

On mobile infrastructure, the U.S. is now leading the world in deploying at scale the next generation of wireless broadband networks, 4G LTE. This new mobile platform will allow us to enjoy broadband speeds on the go comparable to what we're used to from our Wi-Fi connections at home. Today the U.S. has more LTE subscribers than the rest of the world combined, and we're on a path to maintain leadership into the future. This is incredibly important because LTE is the leading platform for mobile, and mobile will be a powerful platform for innovation for years to come.

There is a similar story of improved innovation and infrastructure on wired broadband. And wired and wireless broadband together are having a positive affect on the U.S. economy – private investment and job creation in the sector are strong and growing.

For all the benefits broadband is creating at home, its power to spur economic growth and opportunity may be even greater in emerging economies.

The World Bank estimates that a 10% increase in broadband penetration corresponds to a 1.4% increase in GDP in developing countries, higher than the corresponding rate for developed countries.

And the fact is that the global broadband story is just beginning globally. Today, we have about 1 billion mobile broadband subscribers worldwide, the bulk in developed countries. That number is projected to grow to 5 billion by 2016, with the bulk in developing countries.

Think about that: 5 billion mobile broadband subscribers by 2016. Whether it's creating new opportunities for small businesses worldwide, banking the unbanked, getting weather and market information to farmers, or spreading access on prenatal care information to expecting mothers, the opportunities are amazing and hard to understate.

That's why USAID, under the leadership of Raj Shah, is now using broadband technologies to promote development worldwide.

By focusing on the opportunities of broadband I don't mean to suggest there are no risks. Of course there are. Very serious ones. Cyberthreats. Texting and driving. Theft of intellectual property.

Throughout history, every technological breakthrough creates new dangers along with new opportunities. This was one of Newt Minow's points. The challenge is: How do we realize the incredible potential of broadband, maximize its benefits for global prosperity and opportunity, while addressing the dangers?

The first step is focusing on how to unlock the benefits of broadband – what pillars, what priorities – and then address the dangers with meaningful, tailored and smart strategies, without undermining the recipe for economic growth and broad opportunity.

I see three key pillars of a vibrant broadband ecosystem: infrastructure, innovation, and inclusion.

Start with infrastructure. If you build it, apps and services will come. But you've got to build it, and that has its own set of challenges in every country. What makes the challenge even greater is that, when it comes to wired and wireless broadband networks, you've got to keep building it. To compete in the global, digital economy, countries – ours and others – will need to deploy ever faster and higher-capacity networks.

That's not the only challenge. In this space, we need to address the infrastructure we can see – like fiber and towers – and our invisible infrastructure, the airwaves or spectrum, which is under tremendous stress from growing digital demand, and requires policy breakthroughs. This is why we've focused on the FCC on developing bold ideas like incentive auctions, spectrum sharing, and next-generation unlicensed spectrum use.

Second pillar: innovation.

The interconnection between infrastructure and innovation is one of the key insights of the U.S. National Broadband Plan, which the FCC wrote and released in early 2010. Other countries had developed broadband plans that focused just on the infrastructure piece. We said smart policy requires promoting a healthy broadband ecosystem – networks as well as applications. Policies should promote a virtuous circle where broadband networks spur innovative applications, those applications drive growing user demand for bandwidth, which generates returns and incentives for network operators to invest in improving and expanding broadband networks, and on we go.

The FCC's resolution of the net neutrality – or open-internet – issue two and a half years ago was driven by the desire to promote this virtuous circle, and indeed in the U.S. private investment and innovation in both networks and applications is up significantly in this period, and growing.

Along with infrastructure and innovation, there's one more essential pillar: inclusion. Inclusion is important for two reasons. One is equity. Having large swaths of people who can't connect to the Internet in the 21<sup>st</sup> century is today's equivalent of people without access to electricity in the 20<sup>th</sup>.

The other reason inclusion matters is what's often called “network effects.” The more people on broadband networks, the more valuable they become to everyone on it.

How best to build the pillars of infrastructure, innovation and inclusion. At the FCC, we've focused our policies on four key priorities:

First, private investment. We need massive private sector investment to unleash the opportunities of broadband, and a thriving private market for broadband and other advanced communications services. We need massive investment in infrastructure and massive investment in applications and services. So we need to foster a strong and healthy climate for private investment, which involves recognizing the legitimacy and the need for returns on investment, because without those returns there's no incentive or private capital to invest in networks or services.

Second, competition. Competition is the lifeblood of our free-market economy, and a uniquely powerful tool to drive private investment, innovation, and increasing consumer value. The more competition, the less the need for regulation. But history teaches that government action is indeed required to promote and preserve competition in the ICT sector. In the U.S., for example, the mobile marketplace two years ago was on the doorstep of duopoly. But our rejection along with the Justice Department of the proposed AT&T-T-Mobile deal, and other pro-competition actions we've taken, have led to an improving competition picture in the United States.

The third priority: preserving Internet freedom and openness. The ability to speak, innovate, and engage in commerce online without having to ask anyone's permission has driven the Internet's unparalleled success.

At the U.N. last year, the President spoke strongly about this, saying that the U.S. "will support a free and open Internet, so individuals have the information to make up their own minds." And no one has been a more forceful advocate of the economic and social opportunities of the open Internet than Secretary of State Clinton, who delivered a landmark speech on Internet Freedom in 2010, when she said that one of the fundamental freedoms of the Internet age was the "Freedom to Connect – the idea that governments should not prevent people from connecting to the internet, to websites, or to each other."

Internet freedom is sometimes cited as an obstacle to addressing the issues of cybersecurity and intellectual property theft. I disagree with that. I disagree not because I question the importance of those issues – they are very serious problems that we have to address. But I believe based on my experience that we can address those issues without undermining core values like Internet freedom and privacy.

We've taken important steps along these lines at the FCC – for example, driving a multi-stakeholder process that developed a botnet code of conduct for ISPs and other concrete steps to improve network security, steps consistent with Internet freedom and supported by the Internet community as well as network operators.

Let me turn to the fourth priority, universal access. History and economics teach us that the private market on its own won't deliver universal access to communications services. As population density thins, and topography becomes more challenging, the economics of network buildout and operations just don't add up. And even where networks exist, too many people don't subscribe because of cost and other reasons. The digital divide is real issue, particularly as the costs of digital exclusion continue to rise. Smart government action can help drive universal access, and this is why the FCC last year adopted a once-in-a-generation comprehensive overhaul of the U.S. Universal Service Fund, transforming it from a telephone-focused program (and a wasteful one at that) to an efficient program focused on universal broadband.

These pillars and priorities not only guide our policy work in the United States, they guide our international engagement in the ICT sector. And they have in the past, in ways that have had profound effects.

To explain how, I'll take a detour to the Arab Spring.

In Egypt last year, when the government shut down the Internet and mobile service, many asked: How were they able to do that, and what does it mean that they could do that?

Very important questions. But let me focus on another important question that fewer people asked: How did Egypt come to have an Internet and mobile service worth shutting down?

The short answer lies in the most important policy accomplishment of the Clinton Administration that most people (present company excluded) never heard of: The World Trade Organization Agreement on Basic Telecommunications.

Back in the 1990s, monopolies operated communications networks in most countries around the world, generally government owned or controlled. This was before the Internet and mobile communications took off, and not a coincidence that the Internet and mobile didn't take off in that environment.

U.S. leaders at the White House, Commerce Department, State Department, U.S. Trade Representative's office, and, yes, the FCC developed what many thought was a crazy, or at least hopeless, idea: what if we pushed to privatize communications markets around the world, with open market access, robust competition, and rule of law?

It wasn't easy, and it took years. I watched as my then boss, FCC Chairman Reed Hundt, worked tirelessly with Vice President Gore and U.S. Trade Rep Charlene Barshefsky. The result? 69 nations, representing over 90% of the world's telecommunications revenues, signed a World Trade Organization agreement in early 1997, committing to open private markets and competition, and rule of law.

The agreement, and the private market competitive markets it launched, helped spur trillions of dollars in new investment in infrastructure in telecommunications around the world, and helped spur a huge wave of innovation worldwide, including improving mobile and Internet service.

Global access rose, especially for mobile services in developing countries that leapfrogged wired networks. Between 2001 and 2011, mobile phone adoption increased globally from 15% to 86%, from roughly 900 million to about 6 billion.

The U.S. benefitted from this global growth. U.S. exports in information and communications technology services quadrupled over that decade. And as the global market continues to grow the U.S. economy will continue to benefit.

Guided by this history, when I became FCC Chairman in 2009, I made it a priority for the FCC to re-engage on international issues.

These efforts have led to agreements signed or dialogues opened with a broad range of countries.

On the economic front, the FCC helped broker an agreement among 33 OECD member governments, observers and stakeholder groups on principles for Internet policy-making. This

March, I signed an MOU with the Body of European Regulators for the European Commission, also known as BEREC, formally committing to collaboration on regulatory strategies with our European peers. We reached agreement with Canada and Mexico for sharing wireless spectrum, which enabled operators to deploy 4G wireless broadband services near the U.S.-Canadian and U.S.-Mexican borders. And in 2011, we initiated a Broadband and Innovation Dialogue with our counterparts in China, which has us working together on consumer broadband tools, 4G deployment, and implementing new regulatory tools like incentive auctions.

On the public safety front, we signed an MOU with Mexico to crack down on the re-sale of stolen cell phones. And we've provided practical assistance in the aftermath of natural disasters like the Haiti earthquake.

Our work internationally stemmed from our early recognition at the FCC of the opportunities of broadband, opportunities that could benefit all countries and all people – but also the looming threats to a vibrant broadband future.

And what we've learned internationally has led me to the view that we are now at a crossroads when it comes to the future of the Internet.

Down one path is a free and open Internet that drives new innovations that will grow economies, create opportunity, and raise the standard of living for billions around the world.

Down the other path is a balkanized Internet that stunts opportunity for countless people around the world. Slower economies. Less access to life-changing innovations in healthcare and education. Less freedom around the world.

Let me describe three major threats that could put us on the wrong path for the future of global communications networks.

The first big concern is proposals to create a new layer of international Internet regulation, proposals to have international bodies impose new heavy-handed rules that would radically change the proven model of Internet governance.

Next month, the World Conference of International Telecommunications – known as WCIT – will convene in Dubai to review what are called International Telecommunications Regulations, a framework that has never applied to the Internet. There is a lot at stake.

The U.S. government has been preparing for the WCIT for a long time, and there is no confusion about our bipartisan and unwavering position. To ensure continued investment and Internet-driven economic growth and opportunity, the WCIT must reject proposals for new international Internet regulations and instead embrace the successes of the last two decades and a market-driven, multi-stakeholder approach that preserves the free flow of data and information over the Internet.

Among the proposals that are deeply troubling: proposals that would have an international authority dictate how companies exchange and compensate each other for Internet traffic. Other proposals would bring cybersecurity under the auspices of the International Telecommunications

Regulations, and could be used by countries to support monitoring and restrictions on online communications.

These proposals would not only ignore the successes of the past two decades, they would fundamentally change the Internet as we know it.

They would increase uncertainty and raise costs for online innovators everywhere; they would limit access to Internet content and applications for consumers in developing countries, which would in turn suppress demand for broadband. Rather than promoting a virtuous cycle of investment and innovation in networks and applications, this would unwind it, to the detriment of people all over the world.

The second threat is protectionist policies that would slow the continued growth of global markets powered by unimpeded cross-border flows of data.

Some countries, for example, have implemented rigid requirements on where data and data-centers reside, requirements that undercut the efficiency and cost savings offered by cloud computing. Some countries are pressing forward on policies that require local manufacturing of technology.

These policies are not only bad for the U.S. economy – because U.S. companies including Amazon, Google, Microsoft, and IBM are leading the world in cloud computing – they'll ultimately be counterproductive for the economies in which they are imposed. Countries that suppress cloud computing are suppressing the abilities of their local companies to expand their markets and lower their costs; they're suppressing their own innovation economies.

The third threat is blatant government control of online activity that restricts the freedom of information online and invades privacy

Last month, Freedom House released its third iteration of the Freedom of the Net report. The study found that 20 of the 47 nations they examined were on a negative trajectory when it comes to Internet freedom.

After years of non-engagement, the Commission has had five high level visits with our counterparts from China in just the last year. In December 2011, I spoke directly about open markets and Internet freedom – emphasizing that the free flow of information and freedom of expression lead not just to stronger economies, but more stable societies.

During a trip to Russia this spring, I spoke with Communications Minister Nikiforov about the need to avoid over-regulating of the Internet. However, a few months later, Russia passed a law that requires websites and service providers to remove or block content the government puts on a blacklist. As I said at the time, this law is deeply troubling.

These policies are harmful to the Internet as both an economic engine and as an engine of opportunity. And they're inconsistent with fundamental freedoms including the freedom of speech, and the rights of people worldwide. President Obama, Secretary Clinton and others in the administration have consistently and forcefully called on other nations to end these practices.

Each of these threats, unfortunately, will continue, and they'll remain part of the international landscape for some time to come. The upcoming WCIT conference won't be the last international setting in which these issues arise. And all of us in the U.S. government, my colleagues at the State and Commerce Departments and at USTR, will need to continue to work on a coordinated and ongoing strategy.

We'll need to continue to think creatively about all of our levers, from trade to aid, updating our strategies to meet this digital moment.

We have a powerful story to tell, a story about the ways that a growing Internet globally can increase economic growth and opportunity worldwide, and about the necessary link between that growth and principles of openness, freedom, competition and private markets.

And so when we think about foreign aid, I see real value in sharing expertise and policy solutions.

At the FCC, we are partnering with USAID to support the Broadband Partnership of the Americas, announced by President Obama in April, which works to expand broadband infrastructure and utilization throughout Latin America, particularly in rural areas.

Working with the U.S. Telecommunications Training Institute, we've helped policy officials from 143 developing countries, and in 2012 alone, we hosted 49 delegations to the FCC's International Visitors Program.

Just last week, I participated in a forum hosted by CENTCOM, where I spoke with communications ministers from about a dozen Middle Eastern countries including Egypt, Iraq, and Saudi Arabia about the strategies we are pursuing to promote economic growth and opportunity and combat cybersecurity threats without undermining those opportunities.

Let me close with a story. Last month, I was in Brazil. As I try to do on all my international trips, I met with a group of local innovators, entrepreneurs and executives. I spoke with them about basically the same things I've spoken about today – the importance of private markets, competition, and a free and open Internet.

When we went to Q&A, nearly every question or comment was about how our countries could work together to ensure international adherence to these principles.

I've had similar experiences around the world, and my point is this. Whether you're in Baltimore or Brazil, Kansas City or Cairo, there are young men and women with the desire and the potential to build a bright future – to work on business and social innovations that can – unleash new waves of opportunity and prosperity.

For this generation, the Internet is the primary platform for innovation – where their future is being invented.

My experience has convinced me that we *are* at a crossroads. The threats are real.

But nothing I've seen has shaken my optimism. Working hard and working together, I'm convinced we can turn back the threats and ensure that all people benefit from the amazing opportunities of the Internet, that – as Newt Minow envisioned – we *can* harness new communications technologies to help deliver a future of prosperity and peace.

Thank you.