TOWARD A SINGLE GLOBAL DIGITAL ECONOMY

The First Report of the Aspen Institute IDEA Project

IDEA

INTERNATIONAL DIGITAL ECONOMY ACCORDS
a project of the Aspen Institute Communications and Society Program

THE ASPEN INSTITUTE
Communications and Society Program

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Most importantly, the Communications and Society Program is grateful to all of the corporate, civil society and government participants from the United States, Europe, India and Brazil. Though their participation in the IDEA Project does not necessarily reflect agreement with any particular statement in this report, it is through their collaborative insights that the IDEA Project is able to advance the public discussion about establishing a fair, effective and empowering multi-stakeholder system for governing the flow and use of data in a single global digital economy.

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Toward a Single Global Digital Economy:
The First Report of the Aspen Institute IDEA Project

Introduction

The Internet is the most robust medium of information exchange in history. Two billion people are now connected, and at current growth rates everyone with Internet access will join the Internet community within a decade. Barring technological and political disruptions, the world's populace will then be on a single common digital platform. The global medium can provide unparalleled personal well-being, economic growth and beneficial social change.

The risk of technological and political disruption now looms very large. The power of the medium to promote change has produced a counter-revolutionary response among many political and business interests. In numerous countries, leaders have called for government to interrupt the free flow of data (the essence of the Internet) at state borders and to create within political boundaries unique national regimes for regulating the Internet. Regulation in many instances means the specific curtailment of the capability to exercise the full potential for change provided by the Internet. In some cases, business and government leaders have called for bilateral or multilateral government regulation, sponsored, for example, by the United Nations. These calls raise grave risks to the robust expansion of the Internet that do not seem outweighed by any benefits that might be created for the Internet community.

To consider now, in what still are the early years of the global spread of the Internet, the appropriate forms of governance of this medium, the Aspen Institute, supported by major foundations, and working with a broad array of stakeholders, conducted the two-year project called the International Digital Economy Accords—the Aspen Institute IDEA Project. This is the report emanating from IDEA.

Summary of Opportunity and Risks

The Aspen IDEA Project began by considering the advantages of a single common medium. Technological advances in computing and mobility and in software and data-driven services can foster the growth of the Internet to everyone everywhere. As it grows in scale and scope, the Internet advances creativity and learning, accelerates innovation in new and existing businesses, and enhances the

creation and delivery of public goods, including better government. The Internet can empower citizens of any state or every state to work together to grow their economies and solve their social problems. Its building block is the individual user, but its value is in the network effects of a common global medium.

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As a global network, the Internet gives the farmer in Africa instant access to weather conditions, crop prices and health information. It allows migrant workers in the United Arab Emirates to connect with family and friends left behind in India. It enables children in rural Brazil to take virtual tours of museums in Europe or to engage in massive multiplayer games with peers in Asia and around the world. It offers small businesses in Indonesia, Ireland or Ethiopia cheap and flexible fulfill-ment possibilities as they access global markets. It serves the aspirations of individu-als everywhere, whether they are advancing their personal well-being, their local communities, their standards of living or their aims for self-governance.

In addition, the Internet has a magic quality that reinforces its own potential: namely, the Internet thrives because no single government or private firm, or even group of governments or firms, controls it. It is run by the many for the benefit of all.

It is in everyone's interest, then, to have a trusted, robust and reliable Internet, where access is easy and where the rights of privacy, property and security are respected. But the advantages of a global common medium evaporate if the Internet fragments into regional or local networks. If countries wall themselves off from the global medium, or unduly restrict users' access to content, or if jurisdic-tional niceties block the transfer of information across borders, the public suffers in the following ways:

- Undue barriers to trade and increased protectionism lead to the loss of the benefits of competition: lower prices, choice of services and increased innovation.

- Deviations from a rule-of-law approach lead to a lack of trust as it relates to privacy, security and intellectual property protection.

- Lack of harmonization can lead to differences in deployment of broadband infrastructure, impede spectrum management and hamper interoperability.

- Jurisdictional and regulatory differences can lead to differences in the adoption of human rights, particularly with respect to the freedoms of communication.

Yet, as with free trade or free speech, the Internet is such a powerful medium for change that some governments and firms want to control it in order to limit its impact. Indeed, even if no one can know the ultimate outcome of the recent challenge to the long-standing government of Egypt, when that government shut down its people's access to the global Internet, the world learned a new lesson about the importance of connectivity.

The advantages of a global common medium evaporate if the Internet fragments into regional or local networks.

We are now at an important crossroads in how the Internet will evolve as a global common medium. Will it remain open, free to unleash tremendous innovation and to be the engine of economic growth? Or it will become fragmented, where the free flow of information and services will be hampered and locked down into separate zones of control?

Today there is a window of opportunity to develop a baseline of principles, policies and practices that can promote the Internet as a global medium and prevent fragmentation. That is why the Aspen Institute Communications and Society Program convened the IDEA Project.

How IDEA Was Conducted

The goal of the Aspen Institute International Digital Economy Accords (IDEA) Project was to establish a fair, effective and empowering system for governing the flow and use of data in a single global digital economy. The Project engaged businesses and nongovernmental organizations (NGOs) in the design of enduring principles and of a governance system that implemented those principles. At the center of IDEA's mission was the establishment of the Internet as the common medium through which all of the world's people could securely, fairly, openly and freely exercise their economic and human rights. It became clear, as well, that a multistakeholder approach to governance would be best.

To persuade all to adopt a multistakeholder process based on durable principles, IDEA took on two tasks: (1) to develop a consensus view about the beliefs and values of the Internet and (2) to construct a means of implementing that view. The test of success would be whether the ideas of IDEA could resolve real cases of deviation from generally accepted principles and problematic cases of enforcement of said principles. There were many dramatic examples of hard cases in these last two years.

The goal of the IDEA Project was to establish a fair, effective and empowering system for governing the flow and use of data in a single global digital economy.

The Project proceeded by means of four plenary sessions, multiple working groups and a series of working papers and documents. At least 36 American and European companies, 14 representatives of civil society, and 4 foundations were represented. All devoted much time and intellectual capital to the effort. High-level government officials from 6 countries representing 18 different agencies provided valuable input and insights. This two-year process has led to this report, which (1) publishes the Aspen IDEA Principles and (2) advances some thoughts about a multistakeholder, trade-based implementation system.

As to broad principles, the Aspen IDEA Project produced a clear statement of the ideal Internet culture. The Principles resulted from an extensive process, although they were not endorsed by each of the participants, and cannot, in whole or in part, be attributed to any specific participant or group of participants in the Project. Nevertheless, the Principles were aimed at delivering common views among commercial, civil society and individual users on the most significant and difficult issues facing Internet governance. These Principles are as follows: the free flow of communications; free trade of digital goods, services and ideas; creation of a trusted environment for use of the Internet (including two sides of a coin of rights—piracy and privacy); and transparency in a multistakeholder process. The Aspen IDEA Principles may have influenced and at least supplemented principles developed at other forums, including the government-sponsored work at the Organisation for Economic Co-operation and Development (OECD), in what a White House official participating on the Project called "The Year of Principles–2011."

With respect to any set of principles, the test for their efficacy is: Do they speak to problems that most agree need solving? As discussed below, the Aspen IDEA Principles pass this test.

As to the implementation of the Principles, the Project aimed to define a multistakeholder process, or trade agreement, that emphasized market access for broadband at the hardware, software and content levels. No adequate mechanism now exists to carry the culture of the Internet—the fabric of beliefs and values shared by more than two billion people—to all the expanding frontiers of the Internet. The Project's goal was to define a mechanism that did not require government enforcement of the Aspen IDEA Principles, but did encourage respect for the Principles by every nation and all the interest groups in every nation. The result sought was to generate a digital economy that demonstrated respect for rights of property,

privacy, security and that acknowledged all human rights. The essence of such an implementation mechanism is the idea of multistakeholder governance for the Internet. These enforcement mechanisms were designed to carry that notion into governance of a single global digital economy.

The Project also hoped to outline a trade-based solution that was to be based in large part on the success of the World Trade Organization's Basic Telecommunications Agreement (BTA), which is annexed to the General Agreement on Trade in Services (GATS). The negotiations of the GATS were started by the WTO in Marrakesh in 1993. The basic principles in the BTA were defined by U.S. Vice President Al Gore in a major speech to the International Telecommunications Union (ITU) Development Conference in Buenos Aires in early 1994. Drawing on that precedent, the Project proposed to link a multilateral trade agreement to the Aspen IDEA Principles, as stated in a reference paper.

At the fourth Aspen IDEA Plenary Session in November 2011, IDEA staff offered a "thought experiment" aimed at generating ideas about implementation. In the ensuing discussions and deliberations, there was strong agreement on the need for a multistakeholder governance process. There was also spirited discussion on whether there was a need for any "connective tissue," i.e., a way to coordinate, in any respect, the collection of existing and future multistakeholder entities. A consensus on coordination did not develop by the time that the IDEA Project reached its end. Several aspects of the "thought experiment" appear below, and other forums in the coming years will need to pursue the quest for means to implement principles into practice.

The Aspen IDEA Project Participants and Process

The Plenary Sessions and Working Groups benefited enormously from the participation of a broad range of corporate, civil society, foundation and government representatives. The government representatives did not join the Working Groups; but they gave generously of their time and expertise in the Plenary Sessions, and Project staff consulted with them throughout the process.

The Project was funded by, and owes particular gratitude to the following foundations: the Markle Foundation, John S. and James L. Knight Foundation, Ford Foundation and the John D. and Catherine T. MacArthur Foundation. In particular, Stefaan Verhulst of the Markle Foundation deserves special thanks for his support, insights and day-to-day participation in the process. However, financial support of the Project does not imply the funders' agreement with any particular statement made in this report.

American and European companies from every digital industry segment were instrumental in the development of the Aspen IDEA Common Statement

and Principles, and they provided valuable insight into implementation issues. Similarly, civil society participants from the U.S., Europe, South America and Asia were vital to the process. The Project benefitted greatly from the input and advice of key government officials and agencies from six countries, plus representatives from the European Parliament and the European Commission. More specifically, in addition to the EU representatives, officials from the following countries and agencies contributed to the effort: Canada—Canadian Radio-Television and Telecommunications Commission; Denmark—National IT and Telecom Agency, Danish Ministry of Science, Technology and Innovation; France—Conseil Stratégique des Technologies de l'Information and Office of the President of France; Netherlands—Ministry of Foreign Affairs; Sweden—Ministry of Foreign Affairs; United States—Department of Agriculture, Department of Commerce (NTIA), Department of State, Federal Communications Commission, Executive Office of the President, including National Economic Council and the Office of Science and Technology Policy, Office of the United States Trade Representative, and the President's Intelligence Advisory Board.

The Project built on the prior work of Jonathan Aronson of the University of Southern California; Peter Cowhey of the University of California, San Diego; and Donald Abelson, who in 2009–2010 convened a group of firms to discuss global Internet issues outlined in their book *Transforming Global Information and Communication Markets: The Political Economy of Innovation* (MIT Press, 2009). They joined with Aspen IDEA Chairman Reed Hundt, Managing Director and General Counsel Gary Epstein, Charlie Firestone, Shanthi Kalathil, Melanie Hart, Sarah Eppehimer, David Hansen and Kate Aishton to guide the process.

A representative list of the Aspen IDEA Project participants that attended one or more of the four Plenary Sessions is included in the appendix to this report. In addition to those listed, the Project also benefited from the work of additional representatives from the companies and civil society in the working groups. However, participation in the Project at any one point does not necessarily reflect agreement by a participant or their employer of any particular statement in this report. Rather the report reflects the Project staff's sense of the group.

Portions of the Project's work product are included in the appendix to this report:

- The Aspen Institute IDEA Project Framework Paper

- Internet Freedom: A Background Paper, *Shanthi Kalathil*

- Privacy Standards in the Digital Economy: Enhancing Trust and Legal Certainty in Transatlantic Relations, *Remarks by Viviane Reding*

- The Role of Public Authorities in Cloud Computing, *Remarks by Neelie Kroes*

- The Cloud: Unleashing Global Opportunities, *Remarks by Julius Genachowski*

- Remarks Given at the Aspen IDEA Plenary, Washington, D.C., *Reed Hundt*

- Cross-Border Information Flows and Digital Trade Principles

- Plenary Participants

The deliberations over principles began at the initial meeting in Washington, D.C. in October 2010. The discussion was aided by reference to the Framework Paper included in the appendix. The Framework Paper analyzed fundamental changes in today's global markets affecting the Internet and related international communications systems. It then explored choices for collective action to achieve the Project's goals, stressing the critical need for cooperative leadership in the face of proliferating threats to the culture of the Internet.

The participants discussed and formulated topics for further deliberations. There was a strong emphasis and focus on market opportunities. Most recognized that Internet freedom is an inextricable part of the debate. Market freedom and personal freedom were generally recognized as complementary values, although subject to careful definition.

After the initial meeting, IDEA formed five working groups: (1) Promoting Innovation and Access—Market Opportunities; (2) Publishing in an Open Internet; (3) Network, Device, Application and Service Interconnection; (4) Cloud, Data Control and Sovereignty; and (5) Values and Methods of Information and Communications Technology (ICT) Innovation. Corporate and NGO representatives chaired the working groups and moderated the calls, which were also facilitated by IDEA staff. The discussions were spirited and productive. After several months of weekly calls and meetings, each group produced a report. These reports were compiled into a single working document for the January 2011 Los Angeles Plenary Session.

At the Los Angeles Plenary Session, each Working Group Chair presented a draft set of principles, set forth its underlying rationale and led a group discussion on the issues. Each of the working groups focused on ways to promote the single global digital market within the context of their specific working group charter.

In order to narrow discussion toward the goal of specificity, the Los Angeles participants recommended that the principles be tested, discussed and analyzed in the context of "cloud computing." Ambassador William Kennard, U.S. Ambassador to the European Union, stressed the importance of bringing European companies, civil society and European Union (EU) government representatives into the Project.

Building upon the Los Angeles efforts, and on Ambassador Kennard's recommendation, IDEA staff and participants recruited additional European representatives. With expanded attendance, the third Plenary Session was held in Brussels in late March 2011. At that meeting, the IDEA staff presented a revised version of the principles in a Discussion Paper. The Paper used cloud computing as a test case. As part of the Project's incorporation of more European perspectives, European Commission Vice Presidents Neelie Kroes and Viviane Reding and Deputy Director General for Information Society and Media Antti Peltomäki set forth a European approach to the Project's issues. Representatives from Brazil and India civil society also participated in the Brussels plenary session. Afterwards, the original five working groups, expanded by new European participants, re-formed into a trio of new working groups focusing on (1) market access, (2) free flow of information and (3) trusted environment issues. In addition, each of the three new Working Groups was asked to help formulate portions of an Aspen IDEA Common Statement. The Common Statement was intended to be a general articulation of the three working groups' more specific delineation of principles.

The working groups continued after the March 2011 Brussels Plenary Session. This was an especially eventful time. Many of the Project's participants were involved in the E-G8 meeting in Paris in May 2011. Many were also part of an OECD High-Level Meeting in Paris in June 2011. The former revolved in general terms around the core issues debated in the IDEA Project. The latter led to the promulgation of principles, discussed in detail below, that could be described as "in dialogue" with the Aspen IDEA Principles.[1]

Taking these events into account, Aspen IDEA set the fourth and concluding Plenary Session in Washington, D.C. for November 2011. There, the staff presented the Aspen IDEA Common Statement and Principles. As a result of dialogue at the Plenary Session, the Principles were amended and are published below. The Washington Plenary Session also generally debated and discussed Internet governance issues and specifically discussed a means to implement the Aspen IDEA or other principles.

The Internet freedom agenda was at all times an inextricable part of the Aspen IDEA process. In the first Washington, D.C. Plenary Session, the staff presented a paper on Internet freedom (see Appendix).

As the Project continued, it was thrilling and instructive to watch the 2011 Arab Spring unfold in large part on the common medium of the Internet. Even though the denouement of the Arab uprisings lies in the future, already these events have

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1. Communique on Principles for Internet Policy-Making," OECD High Level Meeting, Paris, France, June 28-29, 2011, http://www.oecd.org/dataoecd/33/12/48387430.pdf.

echoed in Russia and other countries. A central argument of the Aspen IDEA Principles is that governments should support and extend Internet culture, not curtail it.

In 2010 and 2011, United States Secretary of State Hillary Clinton delivered a series of three speeches on Internet freedom. In them, she outlined both the benefits of an open and secure Internet, and the consequences of failing to live up to those ideas. One of the purposes of the Project was to strengthen and apply those ideas. In her trilogy, Secretary Clinton made it a tenet of American policy that the United States, in concert with other governments, will promote the Internet as a single global platform. State Department representatives Alec Ross and Ben Scott forcefully presented Secretary Clinton's policies in all of our meetings.

A central argument of the Aspen IDEA Principles is that governments should support and extend Internet culture, not curtail it.

In January 2010, Secretary Clinton began the presentation of her views by stating that, "The spread of information networks is forming a new nervous system for our planet." But she stated these technologies can be used "to undermine human progress and political rights." She described "a spike in threats to the free flow of information." Then Secretary Clinton said that the United States stands for "a single Internet where all of humanity has access to knowledge and ideas." She likened this position to the First Amendment and to Franklin Roosevelt's Four Freedoms speech in 1941. She then expounded on the Internet's capability to provide "access to knowledge and potential markets" and thus to "create opportunities where none exist." She said, "Disruptions in these demand a coordinated response by all governments, the private sector and the international community." She called for a global "freedom to connect."[2]

Secretary Clinton's second speech, on February 15, 2011, responded directly to events in the Arab Spring.[3] She described the Internet as "the public space of the

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2. Hillary Clinton, "Remarks on Internet Freedom," (Speech, Newseum, Washington, D.C., January 10, 2010), http://www.state.gov/secretary/rm/2010/01/135519.htm.

3. Hillary Clinton, "Rights and Wrongs: Choices & Challenges in a Networked World," (Speech, George Washington University, Washington, D.C., February 15, 2011), http://www.state.gov/secretary/rm/2011/02/156619.htm.

21st century." She restated the importance of the "freedom to connect," and she listed more threats to the exercise of that freedom. She then asserted that "liberty and security … make each other possible," and so both are necessary to the functioning of the Internet. She also called for both "transparency and confidentiality" in the Internet culture. Finally, she called for both "tolerance and civility." Her dualisms captured the balances the Aspen IDEA Principles tried to strike.

Her third and last speech in the series, on December 8, 2011, was a forceful summary.[4] She clearly explained network effects: "When ideas are blocked, information deleted, conversations stifled and people constrained in their choices, the Internet is diminished for all of us." She called (as does the IDEA's implementation proposal) for "cooperative action…shared principles…[and ways] to navigate the practical challenges of marinating an Internet that is open and free while also inter-operable, secure and reliable." Secretary Clinton said private companies and users have to be part of governance, while governments should not "replace the current multistakeholder approach, which includes governments, the private sector and citizens, and supports the free flow of information, in a single global network." She decried "national barriers in cyberspace" and called for a "truly global coalition to preserve an open Internet."

Secretary Clinton's three speeches animated the IDEA effort in at least three ways. As she did, the Project recognizes real threats to an open Internet, including acts by states and nongovernmental agents. The Project enumerates principles that should be shared by all those who connect to the Internet—a new, modern, basic, global freedom. And the Project's participants began to outline practical mechanisms to use multistakeholder governance, instead of state control, as the method to assure for everyone the manifold benefits of this single global medium.

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4. Hillary Clinton, "Conference on Internet Freedom," (Speech, Fokker Terminal, The Hague, Netherlands, December 8, 2011), http://www.state.gov/secretary/rm/2011/12/178511.htm.

The Aspen IDEA Common Statement and Principles

The Aspen IDEA Common Statement was formulated and refined between the Brussels Plenary Session in March of 2011 and the second Washington, D.C. Plenary Session in November 2011. It is a prologue to the more specific principles for the IDEA Project. In our view, the Common Statement should be adopted by all participants in the global Internet, and it is very much in accord with the prevailing culture of the Internet. The Common Statement and Principles collectively constitute "The Aspen IDEA Principles."

The Aspen IDEA Common Statement

All elements of a digital economy and society should be bought, sold, created or experienced in a single seamless global market of goods, services and ideas over broadband infrastructures that operate in a dynamic commercial environment.

All information should be transferred across any and all national borders as senders and receivers should wish. Any restrictions resulting from measures taken by governments to safeguard public policy principles should be proportional, transparent, equitable, necessary, provided for by law and consistent with international treaties or best practices on privacy, security, protection of intellectual property rights and free expression. Commercial agreements and voluntary arrangements may go beyond measures taken by governments but should be compliant with applicable law, relevant international treaties and best practices.

The seamless, global transfer of information and exchange of digital goods and services should occur in a responsible and accountable trusted environment that guarantees the interests of national and personal security, the right of individuals to privacy, and the interests that individuals and firms have in rights of property and rights of access to information, association and free expression.

The Aspen IDEA Principles

The Aspen IDEA Principles fall into three clusters: those that strengthen the Internet infrastructure and promote free trade in the Internet's ecosystem, those that enhance the international free flow of information and those that promote a trusted environment for the Internet:

A. *Strengthen the Internet Infrastructure and Promote Free Trade in the ICT Ecosystem*

1. Governments should foster a pro-competitive policy environment and promote investment, including cross-border investment, in the facilities and services supporting the Internet infrastructure and expansion of the Internet as rapidly as possible.

2. Governments should expand the Internet by encouraging competition in broadband access and other relevant markets. In light of the growing importance of broadband mobile networking, governments should commit to embrace the following policies:

   a. Maximize the availability of spectrum through continual improvements in spectrum policy.

   b. Assure technology neutrality in the design of the wireless network and its devices.

   c. Subject to competition policies, permit commercially determined approaches to the intersection of the wired and wireless segments of the Internet space.

3. To permit suppliers of communications infrastructure to participate fully in the ICT ecosystem and, thus, fuel investment in that infrastructure, governments should commit to these actions:

   a. Redefine the relevant market for networked consumer information to provide nondiscriminatory treatment of telecom carriers, particularly in regard to privacy requirements for how they handle customers' electronic data.

   b. Continue to rely on flexible market-based frameworks for network pricing, traffic policies and interconnection in order to maintain an open and interconnected Internet ecosystem, subject to the reasonable oversight of competition authorities.

4. Governments should expand the capability of the Internet to increase trade and adopt policy measures designed to maximize free trade in all aspects of the ICT ecosystem.

5. To encourage trade and innovation in services and software, governments should:

   a. Allow IP-based and converged services (e.g., cloud computing and environmental services) to enjoy maximum regulatory flexibility and to be subject to regulatory obligations only to the extent that they are narrowly tailored to the dynamics of this rapidly evolving sector.

   b. Reinforce policies that support technology neutrality, including promoting digital product neutrality for applications and software.

6. As the range of ICT applications expand in the economy and society, and the salience of these applications to important rights and needs of citizens increases, new policy interventions are needed in ICT markets. Governments should make best efforts to advance "regulatory coherence" among national policies with major impact on ICT markets, including by creating internal government mechanisms to promote coherence. To do so governments should publish annually a list of planned future measures that impact ICT goods and services.

B. *Free Flow of Information Principles*

1. Governments should allow the free flow of information globally.

   a. Allowing information to move freely and be stored globally permits the capture of economies of scale and makes it possible to reap the economic benefits associated with the Internet.

2. Governments should not artificially or geographically restrict facilities and information storage.

   a. Artificially limiting the location of data geographically reduces the resiliency of the Internet and undermines its stability.

   b. Governments should not require that facilities or information be located in a specific country or region.

3. Other Protections.

   a. Freedom of expression, as defined in international treaties on human rights, should be preserved.

   b. Any government restrictions on content should be transparent, necessary, provided for by law and consistent with international standards on free expression and privacy.

   c. Governments should provide to information on the Internet the same protection from government access as information stored locally or housed in any other environment.

   d. To encourage the online dissemination of services and content, governments should offer providers appropriate intermediary safe harbors to shield them when hosted content or software is alleged to violate a law or infringe on third party rights, including intellectual property rights.

C. Creating a Trusted Environment

1. Global Internet policy and practice must promote a functioning "trusted environment" with respect to issues such as security; privacy; intellectual property rights; protection of children, consumers and personal data online; and free expression. All stakeholders should recognize government, civil society and private sector needs for security of the Internet.

   a. Governments should implement clear, transparent and impartial laws, including due process protections and reasonable notice, to govern requests for third party information stored by Internet providers.

   b. Governments should develop fast, efficient methods for gathering and sharing information regarding fraudulent and deceptive commercial practices that can victimize consumers through the Internet, and the means to deter, detect and prevent such practices.

   c. Governments should develop policy requirements that make certain that consumers' personal data is portable. Such policies should provide consumers with reasonable access to their own data gathered by suppliers about that user's conduct on the Internet (e.g., records of past purchases) and personal information submitted to

Internet-based applications (e.g., personal health information stored on a web-based application for personal health monitoring).

d. Governments have an obligation to assure that the private sector maintains enhanced consumer protection:

   i. Internet providers should transparently explain their information handling practices and the regulatory needs of their server locations with respect to such issues as data protection and privacy.

   ii. Internet providers should disclose requested third-party information only to the extent required by law and, to the extent permitted by law, should provide affected customers with reasonable advance notice of any such compelled disclosure.

   iii. Governments should work to create a level playing field and achieve global interoperability on privacy and data protection principles by basing privacy rules on globally recognized principles (such as the OECD privacy guidelines) and by extending mutual recognition of laws that achieve the same objectives. Privacy rules should also consider fundamental rights such as freedom of speech, freedom of the press and an open and transparent government.

e. Governments should enforce intellectual property rules as they relate to the Internet and the ICT ecosystem.

f. Governments should ensure clearly defined legal rights and a robust and fair process to protect rights, including users' rights, consistent with the need of governments to enforce applicable law. Governments, industry and civil society should work together to foster respect for the rule of law, defined here as a system of transparent, predictable and accessible laws and independent legal institutions and processes that respect, protect, promote and fulfill human rights.

g. Governments should implement internationally recognized, market-driven security standards and best practices to promote cybersecurity, while simultaneously ensuring that the framework conditions ensuring an open Internet are not disrupted.

Discussion and Analysis of the IDEA Principles

Rights and Obligations

The Aspen IDEA Principles (the Common Statement plus the specific Principles) are a combination of positive and negative liberties, or rights. They assert powers to use the Internet that are inherent for all people. These include the capability to send and receive information anywhere in the world, across all national boundaries and to all individuals, subject only to commonly understood prohibitions against criminal activity. Internet users also should have the capability to form associations, participate in networks and express themselves freely. Similarly, the Principles envision as positive liberties the use of the Internet for entrepreneurial activity, the process of creating and capturing value in commercial activities on the single global digital economy and the capability to market and sell on the common medium.

By describing the Aspen IDEA Principles as positive liberties, the project intended to state that firms and individuals in every country should be able to share in the economies of scale and network effects. These multiply exponentially (Metcalfe's Law) as the Internet increases in the number of participants, both animate and inanimate.

Some contend that Internet access and web participation are not fundamental rights. The Aspen IDEA Principles presuppose that, as McLuhan wrote decades ago, "the medium is the message"—or, in other terms, in the digital age, no one can exercise to the fullest such rights as free expression and innovation without being able to be part of the Internet community. Economic, political and technological barriers to that participation are not to be tolerated.

The Principles also include negative liberties: statements of what individuals, firms and nation states should not do. If its governance limits these negative acts, the Internet can evolve in an expanding open space of creative action and technological innovation. Advances in microprocessor price and performance, fiber and radio wave connectivity, and data storage and retrieval have already permitted the Internet to host and to distribute goods and services in degrees of scale and scope that were unforeseen even a few years ago. Unplanned and unpredicted innovation abounds in the common medium, although governments, acting alone and in concert, may assist in assuring various positive liberties. According to the IDEA Principles, these enumerated negative liberties should prohibit governments from accidentally or intentionally creating harmful barriers to the open innovative evolution of the Internet.

Categories of IDEA Principles

The Aspen IDEA Principles fall into three broad categories, mirroring the working groups: market access, free flow of information and trusted environment. These categories are mutually supporting. Each is indispensable to ensuring Internet freedom and function.

The **Market Access** category focuses on connectivity, guiding the creation and maintenance of the physical networks on which information flows. The Principles in this category allow market forces to guide the expansion of these networks and for these networks then to open markets as a whole. This market focus means adopting technologically neutral policies. Consumers should determine what goods and services win the day.

The Principles include a bar against governments discriminating among telecom carriers in imposing privacy requirements. Governments also should not impose any restrictions on IP-based and converged services such as cloud computing. In general, governments need only preserve the status quo of flexible, market-based frameworks, as in the case of network pricing, traffic policies and interconnection, including the choice of access and application technologies and service providers' treatment of traffic. Many participants at the November 2011 Plenary Session in Washington vigorously stated this point. Because of the growth of broadband mobile networking, governments should maximize available spectrum through both licensed and unlicensed modes of use. Commercial markets, not regulators, should determine what devices and network solutions will exploit that spectrum.

As technologies change, the Aspen IDEA Principles will need to change in application. However, the Principles are sufficiently robust that they should provide a precedent-based system of governance. Moreover, the Principles should promote cross-border investment in Internet infrastructure. They should also encourage fair trade policies that maximize the social and economic benefits produced by technological innovation.

The **Free Flow of Information** category contains the Principles that capture the role of information (or data) as a positive force for both commerce and human rights. This category's Principles address two main issues: the geographical storage of data and the protection of free expression and privacy. Regarding data location, policymakers must ensure that national sovereignty and regional agreements do not create barriers that threaten the security and resiliency of transnational networks.

> **… policymakers must ensure that national sovereignty and regional agreements do not create barriers that threaten the security and resiliency of transnational networks.**

As stated in the Principles, governments should remove rules that limit the geographical location of data storage facilities. They should void regulations that undermine the stability and resiliency of the Internet. Subjecting data stored in foreign facilities to different regulations from those imposed on locally stored data produces similar effects to outright bans. The Aspen IDEA Principles reject such rules.

To protect privacy and free expression, governments should offer information exchanged online the same protections as information in any other environment. If governments wish to impose restrictions on information to protect against criminal behavior, or to serve some other social purpose, any such regulation should be transparent, part of the overall rule of law and consistent with international norms.

To encourage the exchange of services and content online, service providers who facilitate those exchanges should not be burdened with the obligation to interfere with those exchanges. Further, they should not face liability for providing a common medium, any more than manufacturers of printing presses or a newsprint seller should be responsible for what someone publishes on paper. Reasonable intermediary safe harbors are necessary to shield providers against allegations that they are hosting illegal content. Governments can create an environment in which information flows freely, without asking service providers to be censorious. Businesses can best exploit economies of scale and reap the economic benefits of the Internet if service providers are not asked, in effect, to act as agents of government. This approach, however, is not intended to condone, rationalize or protect those who do violate the rule of law consistent with international norms.

All participants in the Internet ecosystem, including service providers, recognize the importance of content. The attendant rights of content owners are discussed below in the Trusted Environment category. Discussions of the appropriate balance between trusted environment and free flow of information concerns were an important aspect of the Aspen IDEA dialogue. However, the participants were not able to reconcile intellectual property and intermediary safe harbor issues, and the discussion will need to continue in other forums.

The **Trusted Environment** category contains the Principles that focus on the vital government and private interests needed to protect the Internet from misuse, while preserving vital rights of free expression. Tackling a broad range of issues that has attracted increasing attention in recent years, this category's provisions are grouped into those aimed primarily at protecting privacy and those aimed at preventing the creation online of activities commonly regarded as criminal.

Protecting privacy online requires both protecting the rights of consumers and controlling the actions of service providers. Consumers should have access to and control of the personal data they submit or that service providers collect regarding their actions online. To achieve this end, service providers must be transparent

about their practices regarding consumer data, limit their disclosure of personal data to third parties to those required by law and inform consumers of necessary disclosures whenever possible.

Rules governing third-party requests for information, like all rules in the desired Internet governance system, should be clear, transparent and impartial. They must be administered with due process and reasonable notice provisions.

Coordinating policies across national boundaries will further protect consumers and enhance efficiency. Therefore, governments should build their rules around internationally accepted privacy principles, such as those established by the OECD.[5] They should extend mutual recognition of laws that differ in form but achieve these same goals.

Without safety from fraud, abuse and theft, commerce and civil society cannot continue to thrive on the Internet. To keep users safe, governments should implement internationally recognized, market-driven cybersecurity standards. They should attend to best practices and enforce existing intellectual property rules. Developing fast, efficient methods for gathering and sharing information when violations occur will also help governments respond to existing problems and deter others in the future. These actions should all be taken with due consideration of user rights and acknowledgment of the right of free expression. Government, industry and civil society should cooperate to assure that all parties respect the rule of law and freedom of information.

The IDEA Principles aim to create a sustainable, vibrant digital environment for…social and economic development.

These three categories form a coherent set of fundamental guidelines for enhancing the Internet's capacity to create economic growth and improve quality of life. Without resilient and accessible infrastructure, information has no path to individuals and businesses. Without freely accessible information, infrastructure lacks value to those users. Without trust that these networks are safe for lawful expression and commerce, users' generation and use of information will diminish. The world then would be culturally, economically and politically poorer. The IDEA Principles aim to create a sustainable, vibrant digital environment for the magnification of the possibility of social and economic development.

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5. OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, adopted September 23, 1980, http://www.oecd.org/document/18/0,3343,en_2649_34255_1815186_1_1_1_1,00.html.

Comparison to Other Internet Principles

The Aspen IDEA Project's efforts to develop fundamentals of good international Internet governance were complementary to other initiatives in 2011. A compilation and comparison of several such efforts is included in the appendix of this report.[6]

Some, such as the White House's Cybersecurity Proposal,[7] focused on important but comparatively narrow policy areas. Perhaps the process most closely resembling the Aspen IDEA Project was the government-sponsored OECD process. The OECD Principles were carefully negotiated in a multistakeholder process and unveiled in a laudably open, high-level meeting in Paris.[8] Civil society representatives balked at endorsing the OECD Principles, but many companies were supportive. Expressed in a cautious tone, the OECD Principles reflected an inter-governmental perspective, but one that emphasized a light touch with regard to regulation.

The Aspen IDEA Principles reflect somewhat greater focus on transparency in nation state regulation of the digital economy. They have a somewhat more prescriptive tone. They focus more than the OECD on cross-border data flows and on trade issues.

The OECD Principles looked to future multistakeholder efforts for defining the limits of intermediary liability. The IDEA Principles instead call now for governments to create appropriate intermediary safe harbors to shield service providers from liability for innocently transmitting content that infringes on a third party's rights.

A system to improve government response to online fraud and deception is present in the IDEA plan but absent from the OECD Principles, as are recommendations for empowering consumers to gain access to and control the information collected about them online. The OECD Principles also make no mention of placing privacy protection requirements on service providers, while the IDEA Principles call for Internet service providers (ISPs) to disclose their privacy practices to consumers and to limit the disclosure of consumer information to third parties to the greatest extent possible.

In general, the IDEA Principles explicitly enumerate that which governments should not do. Governments should not require that facilities or information be

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6. See "Cross-Border Information Flows and Digital Trade Principles," in the appendix for additional efforts aimed at developing fundamentals of international Internet governance that are not discussed in this section, including the U.S.-EU Trade Principles for ICT Services and the G8 Deauville Declaration.

7. "Fact Sheet, Cybersecurity Legislative Proposal," The White House, May 12, 2011, http://www.whitehouse.gov/sites/default/files/fact_sheet-administration_cybersecurity_legislative_proposal.pdf.

8. "Communique on Principles for Internet Policy-Making," OECD High Level Meeting, Paris, France, June 28-29, 2011, http://www.oecd.org/dataoecd/33/12/48387430.pdf.

located in a specific country or region. End users should be able to access data across borders. Data centers are efficiently located where power is relatively cheap, weather conditions permit natural cooling and fiber access to the global networks is ample and inexpensive. These efficiencies cannot be achieved in many nation states. But the benefit of accessing and storing information in such data centers can be enjoyed by everyone—as long as nation states do not interfere with the transfer across borders of data from such centers to users located anywhere in the world. In this and other respects, the Aspen IDEA Principles aspire to translate technological innovation into sound policies for every nation.

The normal caveats of criminal sanction must apply: no one wants data centers to be havens for lawbreakers. But underlying the Aspen IDEA Principles is the concern that national efforts to require data to be sited within national boundaries may lead to the denial of market access, or limit citizens in some countries from full use of the Internet.

This topic alone will attract much discussion, debate and detailed deliberation in years to come. Some nations will want to tax cross-border transfer of data. Some will want to impose privacy rules on firms that store individual data and, by doing so, oblige firms to create data centers within the boundaries of any nation in which they do business. Others may want to deny access to national markets for firms that want to offer software, platform or infrastructure as a service. The IDEA Principles express disapproval of all such initiatives, while explicitly endorsing the power of governments to protect their citizens from illegal activity through the medium of the Internet.

In spirit and in objective, the Aspen IDEA Principles and those emerging from the OECD are consistent. Both of these statements have much more useful detail than other efforts have produced. Most importantly, they both endorse multistakeholder governance. This represents a dramatic departure from the way telecommunications and media historically were governed nationally and internationally.

Use and Limitations of the Aspen IDEA (and Other) Principles

Principles alone may be insufficient in the absence of an enforcement mechanism. Various governments still contend that nation states must regulate the Internet to preserve its benefits and preclude its use by bad actors. They suggest that without the attentive bureaucracies and enforcement authority of government, the Internet will devolve into chaos. These governments describe a choice: give up the flexible, dynamic, bottom-up evolution that has allowed the Internet to become a major feature of the social and economic landscape, or watch it dissolve into a swamp of lawlessness. The Aspen IDEA Project rejected this pessimistic view of multistakeholder governance under guiding principles. There are at least three benefits to widespread agreement as to principles and to their continued development through the multistakeholder processes.

First, any firm, group, or individual can use these Principles as a guide to self-directed behavior. The more detailed the principles, the easier for a single firm to align its conduct with the prevailing practice. An initially loose coordination around principles could evolve into a self-organizing, coherent, cognizable code of good behavior—without requiring that any government put the code into law.

Second, anyone accepting the Principles can cite them as support for action challenged by others. If a company is shut out of markets because of national regulations requiring storage of personal data on local servers, it can point to the IDEA Principles on market access in its petition to the authorities for relief. If a government requests that a company remove content that the company believes falls within the boundaries of free expression, that company can cite IDEA Principles on the free flow of information to justify its refusal to comply. It is far from unusual in international law to refer to norms, and codes of conduct, as part of governments reaching reasoned conclusions about right acts.

Third, the IDEA Principles can be adopted by any nation state or multistakeholder organization as a regulatory paradigm or a charter for collective action. Their scale, scope and genesis are robust enough that nations and organizations need not repeat the process by which they were generated. Instead, beginning with the Principles, nations and organizations then could choose to tailor them to address specific problems in specific situations.

> **The IDEA Principles can be adopted by any nation state or multistakeholder organization as a regulatory paradigm or a charter for collective action.**

However, unendorsed principles do not readily lead to mutual accountability among diverse actors. When Egypt severed all of its Internet connections and shut down its cellular services in response to political protests in January 2011,[9] it probably would have been ideal if a multistakeholder body had convened to mobilize a common response. It would have been useful if a multistakeholder group's charter obliged that participants frame a response. If the firms that effectively operated the Internet in Egypt had endorsed the Aspen IDEA Principles, they might have been aware that complying with the instructions of the Egyptian state put them in

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9. Christopher Rhoads and Geoffrey Fowler, "Egypt Shuts Down Internet, Cellphone Services," *Wall Street Journal*, January 29, 2011, http://online.wsj.com/article/SB10001424052748703956604576110453371369740.html.

conflict with what they had endorsed. That might have led them to discuss ways to oppose collectively the demands of the Egyptian state. They could have said (with the strength of numbers), if the government of Egypt terminated Internet traffic, they must collectively and publicly state their opposition.

By contrast, when a government singles out a firm as a danger to the state, it is extremely difficult for it to respond in any way other than by obedience to the demands of the accusatory state. The individual firm may depend on a government license to do business. Its employees and business partners may be at risk if the firm does not submit to the state. And any single firm may face the prospect that the accusing state can elevate a commercial rival into a superior situation if it does not comply with whatever demands are made. While Google tangled with China over banned search terms, the Chinese search company Baidu profited immensely, at Google's expense, in the Chinese search market.[10] When a critical mass of firms has endorsed the Aspen IDEA Principles, however, an attack on one may be deemed an attack on all. A single firm then could call on all signatories to declare support for the IDEA Principles. If they did act collectively, the state might find that it had more to lose from the resistance of all firms than it could gain by bending the single firm to its will.

Next Steps—What Is Left to Do

There is still work to be done on the Aspen IDEA Principles. Progress should be made in the areas of consistency across other statements of principles, more precise classification of principles, clearer details and broader explicit consensus.

Consistency. The Aspen IDEA Project recognized that the time was not ripe for a full agreement. The participants were pressed for time. The parties were still divided on important issues, and the Principles will need to evolve in tandem with technological and political circumstances. The Aspen IDEA Principles will benefit from deeper analysis and comparison with the larger ecosystem of Internet-related principles. Various stakeholder groups, in both the private and public sectors, are regularly proposing new sets of principles. Mapping the areas of convergence and conflict among these sets will make clear where challenges remain and where the path for progress is clear.

Classification. The Principles would benefit from separation into finer categories for application to specific circumstances. Those addressing more high-level ideas should serve as general guides to the policy process and will remain relevant for years to come. Narrower, more specific directives will provide clearer direction for implementation. These more specific principles probably will require more

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10. Alexandra Stevenson, "China: Google's Loss Is Baidu's Gain," *Financial Times*, July 19, 2010, http://blogs. ft.com/beyond-brics/2010/07/19/google-back-in-china-but-faces-steep-competition/#axzz1gdJvma2g.

frequent revision as technology and circumstances change. Drawing lines between general and specific principles, analogous to the demarcation between statutes and regulation, will increase the value of both.

Clarification. Some areas of the Principles require more deliberation. For example, to achieve closure in the Trusted Environment category, the Principles need a more complete policymaking guide. Stakeholders in the global digital economy also must further develop national security, privacy and intellectual property principles. Avoiding such issues will lead to less consensus around the other principles.

Consensus. Ultimately, the IDEA Principles need strong, widespread support by the Aspen participants and from others that were not around the Aspen IDEA table. It is particularly important to involve those from all sectors outside the United States and Europe. Either by acts of individual leadership, or by a collective multistakeholder process, a broad consensus is necessary. Indeed, if parties in the Aspen IDEA Project do not lead the refinement and consensus-building process, they may find that suboptimal principles emerge as normative practice in the Internet ecosystem. (Such unfortunate behavior occurs all too often in commons, whether an ocean of water is the example or an ocean of data is the case in point.)

Moreover, the Aspen IDEA and OECD Principles, and other competing principles in global discourse, need support from relevant NGOs and by the overwhelming majority of nations. NGOs are numerous, but many are inadequately or intermittently funded. Foundation or corporate support probably will be required to allow many NGOs to participate fully and effectively in multistakeholder forums. NGOs are inconsistently invited to participate as equal participants in relevant processes, especially NGOs based in developing countries. Many of them represent important points of view, but if their presence is not robust and continuous, or if they are not able to commit some constituencies to concrete principles, their views may be unheard or dismissed too easily. Yet NGOs are central to the genesis and governance of the Internet. If the NGO role is to remain as constructive as it has been historically, relevant parties should strengthen NGOs through inclusion and financial support.

The lack of binding participation in principle formation by most nation states, particularly in the developing world, is difficult to address without invoking the presence of existing bodies like the United Nations, or its authorized extensions, such as the International Telecommunications Union (ITU). But the principle of multistakeholder governance by definition denies control of the Internet to the UN or the ITU, even if these venerable organizations were to seek such authority over the Internet. Voluntary government participation can produce important and widely attended events like the Internet Governance Forum in Nairobi in 2011, but a reliable method to ensure widespread government participation still needs to be found.

Issues of Implementation of Principles

Statement of Problem of Implementation

The goal of the Aspen IDEA Project was to engage governments, business and civil society in the design of principles and in the development of a governance system that would fairly and efficiently implement them. The threats described below are real and cannot be ignored. Thus, in addition to the development of the Aspen IDEA Principles, an underlying theme throughout the course of the Project was the search for a way to implement them through a multistakeholder entity ("MSE") model of Internet governance. To pass muster, the resulting governance structure needs to be able to effectively resolve hard cases that deviate from generally accepted principles.

> **…governance by MSEs acknowledges the right of everyone—companies, civil society and governments— to participate in the policy-making process….**

The participants understood the importance of the implementation issue. It was the focus of the November 2011 Washington, D.C. Plenary Session. From the start, the Project explored trade-based solutions that could be embedded in a broader agreement on national policies and their implementation. The Aspen IDEA participants recognized that a trade-only solution was unfeasible. Thus, the Project considered existing and evolving forms of multistakeholder Internet governance.

Simply put, the governance by MSEs acknowledges the right of everyone— companies, civil society and governments—to participate in the policy-making process related to issues with which they choose to be concerned. However, the MSE concept is vague (to a degree, purposefully so), lacks operational clarity and leaves open many questions: What are the respective roles of the various actors? Should governments be an active participant in the process? What procedures should be used? What are the binding or enforcement mechanisms that need to be in place? These and other questions were debated during the course of the Project and elsewhere.[11]

To some, MSE governance is inadequate. It can seem like democracy to those who do not favor democracy, but it smacks of technological colonialism to those who vividly recall imperialist subjection. The open, transparent nature of MSE

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11. See Wolfgang Kleinwächter, ed., *Internet Policy Making*, Multistakeholder Internet Dialog, Co:*llaboratory* Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co:llaboratory, 2011), http://en.collaboratory.de/publications/discussion_papers.

governance has few supporters among the unelected, or undemocratically elected, governmental leaders who assert sovereignty over most of the world's people. Still, there is a recognized body of law and practice on MSE governance. Several examples exist in the Internet area. Even though no single comprehensive set of MSE practices exist, and no vote was taken, certain parameters emerged:

…the only plausible Internet governance plan includes both government and nongovernmental agents.

First, technological advances do not necessarily produce positive results for humanity. As Secretary Clinton explained in detail, collective human action is essential for the Internet to deliver good outcomes.

Second, the only plausible Internet governance plan includes both government and nongovernmental agents. Government has a necessary role in vindicating various rights and seeking certain sound outcomes. Nongovernmental actors operate the Internet, create value on its platform and, at a bare minimum, address transborder issues that no single government can manage.

Third, outcomes matter. If the Internet culture cannot solve the problems of market access, property rights and individual freedom, then its governance must evolve to produce solutions. The test of effective MSE governance is its results.

Alternatives to Multistakeholder Governance

As the Internet's effect on commerce and individuals continues to grow, nation states are showing increasing interest in asserting their jurisdiction over it. A legitimate and important role for governments must be defined, partly to enhance the capability of the Internet to affect the world for good instead of ill, and partly to establish appropriate limits on governmental action. The line must be drawn with special care in the areas of privacy, security and the protection of property rights. In the absence of a positive plan, negative initiatives might proliferate.

…in the absence of a positive plan, negative initiatives might proliferate.

For example, China, Russia and other nations are pushing for the establishment of a more formal international management system for the Internet. They may

want to house such a function in the United Nations.[12] India, with the support of Brazil and South Africa, has suggested the creation of a United Nations Committee for Internet-Related Policies, reporting directly to the UN General Assembly and run by the organization's staff and using its funding.[13] Despite a mixed response from other authorities, these three nations have vowed to bring Internet governance under broader state control.[14]

A venue for the debate of such proposals is the ITU World Conference on International Telecommunications in late 2012. The ITU proposes that nations will renegotiate the International Telecom Regulations (ITRs). The United States' position, supported by other like-minded governments, is that only minor changes should be made to the ITRs. The ITU's Secretary-General has stated that a substantial expansion of the treaty's scope is necessary.[15] Given its existing treaty-based authority over digital networks, the ITU, governed by its member states, is unlikely to adopt multistakeholder governance as the central method to guide the future of the Internet.

Further, the ITU World Conference could seek actions that run counter to the Aspen IDEA Principles, the OECD Communiqué[16] or any other widely accepted statement of operational conducts and values. Russia, China, Tajikistan and Uzbekistan set forth their own proposal for Internet norms before the United Nations General Assembly in September 2011. This "International Code of Conduct for International Security" does support some goals shared by the United States and other nations favoring an open Internet, such as protecting critical infrastructure. But it pushes for "information security" to curb any action that "undermines other nations' political, economic and social stability, as well as their spiritual and cultural environment."[17] This proposal is distinctly not consistent with the Aspen IDEA Principles. If the Russia-China policy becomes a part of the Internet's culture, the impact on international human rights and digital commerce could be devastating.

Until recently, conflicts over culture and governance of the Internet were largely hypothetical. But in the past decade challenges to the seamless and open Internet proliferated. China's restrictions on Internet traffic are bold and at odds with the

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12. Jason Healey, "Breakthrough or Just Broken? China and Russia's UNGA Proposal on Cyber Norms," *New Atlanticist*, http://www.acus.org/new_atlanticist/breakthrough-or-just-broken-china-and-russias-unga-proposal-cyber-norms.

13. Kieren McCarthy, "India Formally Proposes Government Takeover of Internet," *.nxt*, October 27, 2011, http://news.dot-nxt.com/2011/10/27/india-proposes-government-control-internet.

14. T. Ramachandran, "Plan for New Global Body to Oversee Internet Governance Evokes Mixed Response," *The Hindu*, October 23, 2011, http://www.thehindu.com/sci-tech/internet/article2565390.ece.

15. David A. Gross and M. Ethan Lucarelli, "The 2012 World Conference on International Telecommunications: Another Brewing Storm Over Potential UN Regulation of the Internet," *Who's Who Legal*, November 2011, http://www.wileyrein.com/publications.cfm?sp=articles&id=7630.

16. "Communique on Principles for Internet Policy-Making," OECD High Level Meeting, Paris, France, June 28-29, 2011, http://www.oecd.org/dataoecd/33/12/48387430.pdf.

17. Jason Healey, "Breakthrough or Just Broken? China and Russia's UNGA Proposal on Cyber Norms," *New Atlanticist*, http://www.acus.org/new_atlanticist/breakthrough-or-just-broken-china-and-russias-unga-proposal-cyber-norms.

Aspen IDEA Principles. China, for example, has publicly announced the blocking of websites based outside of China that are trying to enter the Chinese market, including Facebook, Twitter and Skype.[18]

Even governments that usually support the free flow of information sometime diverge from the Aspen IDEA Principles. Riots in London in early 2011 prompted the United Kingdom's prime minister initially to blame Twitter and Facebook for facilitating disorder. He floated their suppression as a means of preventing future riots.[19] The EU is apparently considering imposing restrictions on data storage location that in practice may create market access limitations on cloud computing in Europe. And in August 2011, San Francisco Bay Area Rapid Transit authorities shuttered mobile-Internet and phone service in an attempt to quash a demonstration. The FCC is now investigating this issue.[20]

State actors also threaten security. The United States Congress recently alleged that China and Russia are responsible for cyber-espionage campaigns against American companies.[21] Government incursions on the basic structure of the Internet impede the free flow of information and reduce the safety of conducting business online. These threats to the Internet culture's survival are likely to become more frequent in the absence of both a wider base of support for the Principles and a greater consensus of opinion around multistakeholder governance.

…threats to the Internet culture's survival are likely to become more frequent….

Consideration of Trade Agreements as an Internet Governance Mechanism

The Aspen IDEA Project began by seeking consensus around a trade agreement that emphasized market access for broadband at the hardware, software and content levels (see the Aspen IDEA Framework Paper in the appendix.) The notion was that by means of a trade regime, the Principles could be exported into the economy and

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18. Malcolm Moore, "China Makes Skype Illegal," *The Telegraph*, December 30, 2010, http://www.telegraph.co.uk/technology/internet/8231444/China-makes-Skype-illegal.html.

19. Elizabeth Montalbano, "U.K. Prime Minister Floats Blackberry, Twitter Crackdown," *Information Week*, August 11, 2011, http://www.informationweek.com/news/government/policy/231400063.

20. Julius Genachowski, "Statement on BART Policy Adoption," Federal Communications Commission, December 1, 2011, http://www.fcc.gov/document/fcc-chairman-julius-genachowskis-statement-bart-policy-adoption.

21. Fahmida Y. Rashid, "U.S. Congressional Report Accuses China, Russia of Cyber-Espionage," *eWeek*, November 11, 2011, http://www.eweek.com/c/a/Security/US-Congressional-Report-Accuses-China-Russia-of-CyberEspionage-809875/.

national legal regime of every signatory country. A single digital economy would emerge. It would promote respect for rights of property, privacy and security, as well as human rights, and would utilize an existing enforcement regime. This aspiration was based in large part on the success of the WTO Basic Telecom Agreement of 1997. Under this precedent, a multilateral trade agreement could be linked to behavioral principles stated in a reference paper. This technique was endorsed by a former United States Trade Representative in the Project's final plenary meeting.

Agreement on a trade agenda failed to materialize in the IDEA Project for at least two reasons. First, a global trade agenda was severely hampered by the worst economic downturn in decades. Neither business nor government could mobilize the will to take action in this new topic area at such a trying time.

Second, even as threats to a seamless Internet gathered strength globally, competing and unharmonious perspectives emerged within the United States concerning the reach of domestic jurisdiction over even the physical platforms that underlie the workings of the Internet. A successful trade agenda depends on an underlying consensus on both a regulatory framework and an implementation process. That has not yet happened. Moreover, some Aspen IDEA Project participants thought that the lack of consensus domestically about Internet governance meant that the United States could no longer serve as the undisputed "demander" and leader in global negotiations. After all, the Internet is global today, and therefore many nations, alone or in coordination, could lead trade-based approaches to addressing the need for governance. However, in the last few years, Europe has become even more riven by political disharmony than the United States. As a result, no country or region has successfully assumed the role of leader in setting an aggressive global trade agenda for the digital economy, or even specifically sought to champion market access for Internet firms.

Nevertheless, trade remains a fruitful means for supporting the open Internet. Trade agreements can combat both traditional roadblocks to commerce and newer threats that could cause more damage to the digital economy. Tariffs and regulatory barriers such as interconnection rules, restrictions on foreign ownership of networks and limits on investment in infrastructure deleteriously affect the Internet, and these barriers are traditional subjects of trade negotiations. New technical barriers to trade present a particular threat to the Internet. Among other issues, differing technical requirements for the same equipment and services prevent firms from introducing new goods and services to improve the platform.

Trade regimes have enforcement mechanisms that multistakeholder governance lacks. Trade can also have an important influence on the development of the digital economy. The principles that undergird trade decisions can become norms that guide nation states' domestic governance, laying a foundation for future decisions.

Perspective of Current Trade Officials. High-level trade officials were active participants in the Aspen IDEA Plenary Sessions. Miriam Sapiro, Deputy U.S. Trade Representative, and Christine Bliss, Assistant U.S. Trade Representative, provided valuable background and advice at the Plenary Sessions. They stressed that recent initiatives are attempting to integrate the global trade regime with the Internet.

For example, multiple efforts have addressed protection of intellectual property rights internationally. The Trade-Related Aspects of Intellectual Property Rights (TRIPS) set rules applying intellectual property law to all members of the WTO as part of the General Agreement on Tariffs and Trade (GATT) in 1994. In 1996, the WTO signed an agreement with the World Intellectual Property Organization (WIPO) to encourage broader understanding and implementation of TRIPS and other Intellectual Property Rights (IPR) rules, including technical support.[22] More recently, the Anti-Counterfeiting Trade Agreement (ACTA) has provided additional support, with its current participants, including the new addition of Russia,[23] representing more than half of global trade in goods.[24] Bilateral agreements have also bolstered the effectiveness of IPR initiatives. Nearly all U.S. bilateral trade agreements created in the last decade contain requirements that both nations sign key WIPO treaties.[25]

Regional organizations have adopted rules extending support of free digital trade beyond where broad multilateral consensus is possible. The Asia-Pacific Economic Cooperation (APEC), established in 1989, has made progress on Internet and technology-related issues. APEC's 2005 Privacy Framework establishes standards similar to OECD standards previously set on the topic with the important inclusion of China and other nations that have caused concern over treatment of user data.[26] The group continues efforts to coordinate more coherent policymaking among its 21 member nations.[27]

Bilateral agreements have also made some progress in the digital economy.

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22. "Agreement Between the World Intellectual Property and the World Trade Organization," World Trade Organization, 1995, http://www.wto.org/english/tratop_e/trips_e/intel3_e.htm.

23. Miriam Sapiro, "Intellectual Property Protections in the Digital Age," (Speech, St. Petersburg International Economic Forum, St. Petersburg, Russia, June 18, 2011), http://www.ustr.gov/about-us/press-office/speeches/transcripts/2011/june/remarks-ambassador-miriam-sapiro-st-petersburg.

24. Miriam Sapiro, "Challenges to Global Economic Governance: Trade and Monetary Aspects," (Speech, Eleventh Annual Herzliya Conference, Tel Aviv, Israel, February 8, 2011), http://www.ustr.gov/about-us/press-office/speeches/transcripts/2011/february/remarks-ambassador-miriam-sapiro-eleventh-a.

25. Sacha Wunsch-Vincent and Arno Hold, "Towards Coherent Rules for Digital Trade: Building on Efforts in Multilateral Versus Preferential Trade Negotiations," Working Paper no. 2011/64, Swiss National Centre of Competence and Research: Trade Regulation, July 4, 2011, http://www.nccr-trade.org/publication/towards-coherent-rules-for-digital-trade-building-on-efforts-in-multilateral-versus-preferential-tr/.

26. Graham Greenleaf, "APEC Privacy Framework Completed: No Threat to Privacy Standards," *Privacy Law and Policy Reporter*, 2006, http://www.austlii.edu.au/au/journals/PLPR/2006/5.html.

27. Ron Kirk, "Remarks to the Consumer Electronics Show," (Speech, Las Vegas, NV, January 8, 2011), http://www.ustr.gov/about-us/press-office/speeches/transcripts/2011/january/remarks-ambassador-ron-kirk-consumer-electro.

Preferential Trade Agreements (PTAs) between individual nations allow governments to settle issues on which broader negotiations fail to reach consensus, such as the application of other WTO rules to digital transactions. PTAs have provided a venue for experimentation with new terms, pushing forward the development of e-commerce-related terms. The United States has spearheaded this approach, negotiating agreements with a number of key partners that include provisions for everything from improving domestic regulatory processes to removing location requirements for online suppliers.[28] Other nations have similar agreements enacted or pending, demonstrating the influence of these "laboratories" for innovative trade solutions.[29] A United States agreement with Korea is a recent example, breaking down technical barriers to trade, settling intellectual property enforcement questions, and establishing momentum for further change in the region.[30]

Other newer initiatives are being pursued to update trade relationships, harmonize trade rules on a global scale and strengthen enforcement of existing rules. For example, in November 2011 President Obama announced that nine nations had agreed to a firm outline for the Trans-Pacific Partnership, a forward-looking trade agreement among Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, Vietnam and the United Sates. The agreement builds upon the work of APEC, covering all sectors of the member nations' economies but saving special focus for ICT.

Current work between the United States and the European Union is leading to new options for trade discussions concerning the digital economy. The Transatlantic Economic Counsel (TEC), the organization behind the Internet-based trade principles discussed above, is pursuing ongoing projects on innovation policy and intellectual property protection. Leaders of the United States and the European Union met in November 2011 to issue a directive for TEC to establish a High Level Working Group on Jobs and Growth, focusing on tech-driven emerging sectors.[31] A new forum under TEC, the Transatlantic Innovation Action Partnership (TIAP), is using multistakeholder discussions between top-level government representatives and technology experts to break down barriers in the trade of raw materials necessary for production of new technologies and to increase communication about geographic areas where innovation is flourishing.[32] Although all market sectors are not covered, these initiatives promise to strengthen the already strong trade relationship between the United States and the European Union.

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28. Sacha Wunsch-Vincent and Arno Hold, "Towards Coherent Rules for Digital Trade: Building on Efforts in Multilateral Versus Preferential Trade Negotiations," Working Paper no. 2011/64, Swiss National Centre of Competence and Research: Trade Regulation, July 4, 2011, http://www.nccr-trade.org/publication/towards-coherent-rules-for-digital-trade-building-on-efforts-in-multilateral-versus-preferential-tr/.

29. Wunsch-Vincent and Hold.

30. Kirk, *op cit.*

31. The White House, Office of the Press Secretary, "Joint Statement: US-EU Summit," November 28, 2011, http://www.whitehouse.gov/the-press-office/2011/11/28/joint-statement-us-eu-summit.

32. U.S. Department of State, "Transatlantic Innovation Action Partnership Work Plan," December 17, 2010, http://www.state.gov/p/eur/rls/or/153327.htm.

Another important area of progress in trade is the enforcement of existing agreements. Digital commerce has been a leading source of compliance controversy in trade. Enforcement of TRIPS-consistent laws, rather than the establishment of those laws, is the central problem in intellectual property rights protection.[33] In recent years, digital trade and the Internet have been among the leading causes of service-related WTO disputes.[34] The United States has also taken advantage of WTO rules allowing enforcement pressure without formally filing a dispute. In October 2011, the United States sought detailed information from China on the impact of Chinese policies that may block American companies' websites. Given the importance to American businesses of online access to the enormous Chinese market, ensuring that China acts in accordance with related GATS provisions is crucial. The GATS contains a provision requiring China, a WTO participant, to respond promptly to the request.[35] Without making sure that key participants are following trade rules, there is little point to setting them in the first place.

Limitations of a Trade Solution. Although trade negotiations continue to attempt to ease digital commerce among nations, certain aspects of the traditional trade system limit their effectiveness. These issues have historically prevented trade from addressing the full spectrum of challenges facing international commerce and civil society. Overcoming them is an important challenge for policy makers and stakeholders.[36]

Trade agreement structures leave room for gaps and exceptions that hamper their effectiveness. Gaps can be created by the need for consensus, as negotiating parties avoid certain topics, or willfully ignore controversial issues. Because governments are bound only to the final agreements they sign, these gaps lead to uncertainty even if other countries have committed to certain behaviors. Even after parties agree to basic terms, exemptions built into agreements provide more exceptions for countries not interested in committing to full compliance. Both the GATS and TRIPS contain articles that allow a country to avoid treaty provisions that violate the country's "public morals," but neither document contains adequate explanation of what that term means.

Another issue is the national security exception present in every trade accord. By shifting goods and services into the military category, nations can avoid bans

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33. U.S. Department of Commerce, "Overview of Intellectual Property Rights and the TRIPs Agreement," August 12, 2002, http://www.osec.doc.gov/ogc/occic/ipr.htm.

34. Sacha Wunsch-Vincent and Arno Hold, "Towards Coherent Rules for Digital Trade: Building on Efforts in Multilateral Versus Preferential Trade Negotiations," Working Paper no. 2011/64, Swiss National Centre of Competence and Research: Trade Regulation, July 4, 2011, http://www.nccr-trade.org/publication/towards-coherent-rules-for-digital-trade-building-on-efforts-in-multilateral-versus-preferential-tr/.

35. Office of the United States Trade Representative, "United States Seeks Detailed Information on China's Internet Restrictions," October 19, 2011, http://www.ustr.gov/about-us/press-office/press-releases/2011/october/united-states-seeks-detailed-information-china%E2%80%99s-i.

36. See Peter F. Cowhey and Jonathan D. Aronson with Donald Abelson, *Transforming Global Information and Communications*, (Cambridge, MA: MIT Press, 2009).

on tariffs and industry subsidies.[37] ICT industries, where new technologies are likely to have defense as well as civil applications, may be more vulnerable to such potential tactics. Using these gaps and exceptions, countries can avoid conforming to broadly accepted principles of Internet governance while still technically complying with trade agreements.

After entering an agreement and navigating multiple exceptions, a trade agreement provision must also deal with enforcement and compliance problems. The WTO's Trade Policy Review Mechanism regularly reviews the trade policies of member nations and requires nations to offer explanations for inconsistencies. However, the process offers only transparency and does not lead to enforcement of rules against violators. Cases often drag on for years before any sanctions are issued (notwithstanding major reforms to the system in 1995).[38] Ultimately, the significant power that countries have to enforce WTO agreements and dispute settlements is the threat of retaliation by imposing additional trade barriers. This tit-for-tat tactic leaves smaller nations, who lack economic force behind their policy threats, with little protection at all.[39] Yet there are many small nations for which access to a single global digital economy is especially valuable.

A history of tension between trade agreements and human rights further complicates this system. The WTO is not a human rights organization, and its agreements do not explicitly reference human rights.[40] Historically there has been conflict between human rights and agreements in several areas of trade, and that conflict continues in such areas as intellectual property. Human rights advocates have made TRIPS and other treaty provisions key to the ICT industry the subject of significant critique.[41] Human rights also interact with trade agreement exceptions in ways that further complicate enforcement.

These drawbacks or limitations of a trade regime are not new, nor are they likely to be resolved in the near future. The trade regimes should help sustain a single digital economy. However, ensuring that nations act in accordance with all desirable principles likely will require more mechanisms for implementation than the trade arena provides.

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37. John Feffer, "Globalization & Militarization," *Foreign Policy in Focus*, October 4, 2005, http://www.fpif.org/reports/globalization_militarization.

38. Mostafa Beshkar and Eric W. Bond, "The Theory of Dispute Resolution With Application to Intellectual Property Rights," in *Intellectual Property, Growth and Trade*, ed. Keith Eugene Maskus, (Amsterdam, Elsevier, 2008), 394.

39. Bernard M. Hoekman and Petros C. Mavroidis, "WTO Dispute Settlement, Transparency and Surveillance," *The World Economy*, 23, no. 4, November 19, 1999.

40. Cephas Lumina, "Free Trade or Just Trade? The World Trade Organisation, Human Rights and Development (Part 1)," 32, http://www.ajol.info/index.php/ldd/article/viewFile/52892/41493.

41. Lumina, *op cit.* 29

Solving for Multistakeholder Entity (MSE) Governance

Advantages and Disadvantages. Whatever their membership, goals and decision-making structures, different Multistakeholder Entities (MSEs) have similar advantages and disadvantages. Multistakeholder governance can embody democratic processes in a way not practically possible in any governmental system.[42] By shifting control away from a top-down system in which a single authority sets agendas and provides the final word on solutions, MSEs facilitate dialogue about institutional priorities. Because MSEs permit all ideas to be advanced, they can encourage more creative solutions to problems. Their flexible structures and lack of bureaucratic formality can allow them to bring debates to conclusion with dispatch.[43]

But MSEs are self-organized; they do not necessarily have legitimacy, respect or persuasive power. They may lack financial and other resources. Participants may not necessarily represent all stakeholders whose interests are implicated in an MSE's decisions. Organizers may not find a good balance between the inclusion of all stakeholders and the need to deliver consensus. Organizers who lack authority may find that their judgment calls are influenced by the need to avoid criticism from one party or another.[44] In some MSEs, the stakeholders with the greatest influence on decision making are also the parties that the resulting rules or principles are intended to govern. In these cases, questions of accountability arise, particularly when procedural controls may not be as strict as in other governing bodies.[45]

> ## Because MSEs permit all ideas to be advanced, they can encourage more creative solutions to problems.

Some governmental bodies have also begun to question MSEs' source of authority over the Internet, arguing that without formal cooperation with government entities, they cannot exercise legitimate power over Internet policy making

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42. Sivasubraminian Muthusamy, "Building Suitable Frameworks for Internet Governance," in *Internet Policy Making*, ed. Wolfgang Kleinwächter, Multistakeholder Internet Dialog, Co: *llaboratory* Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co: llaboratory, 2011), 81, http://en.collaboratory.de/publications/discussion_papers.

43. Fiona Alexander, "Towards an Open and Innovative Internet," in *Internet Policy Making*, ed. Wolfgang Kleinwächter, Multistakeholder Internet Dialog, Co: *llaboratory* Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co: llaboratory, 2011), 28.

44. Bertrand de La Chapelle, "Multistakeholder Governance," in *Internet Policy Making*, ed. Wolfgang Kleinwächter, Multistakeholder Internet Dialog, Co: *llaboratory* Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co: llaboratory, 2011), 22–23.

45. Edward J. Balleisen and Marc Eisner, "The Promise and Pitfalls of Co-Regulation: How Governments Can Draw on Private Governance for Public Purpose," in *Internet Policy Making*, ed. Wolfgang Kleinwächter, Multistakeholder Internet Dialog, Co: *llaboratory* Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co: llaboratory, 2011), 135.

for much longer.[46] Finally, MSEs lack readily accepted methods of enforcing their decisions. Nevertheless, despite all these disadvantages, MSEs can run on their record. For 20 years, they have played a major and largely successful role in the development of today's Internet.

Current MSE Initiatives. Several of the MSEs that have helped define the Internet from its inception continue to shape its evolution. What is now a structure of independent entities began as an amalgam of small boards and advisory panels created by the United States government to oversee management of the Internet. In 1992, members of these groups, who reside in many countries, founded the Internet Society (ISOC), a not-for-profit organization, in order to host a continuing discussion of the Internet's legal, political, economic and social implications. ISOC provides an overarching legal and fiscal structure for the groups that directly manage the Internet's functioning.[47] Under ISOC, the Internet Architecture Board (IAB) is in charge of the technical and engineering development of the Internet, overseeing work by the Internet Engineering Task Force (IETF) and other task forces.[48] Together, the multiple MSEs functioning under ISOC form a network of linked organizations, each with specific responsibilities for guiding the Internet's everyday functioning.

Of the MSEs, the Internet Corporation for Assigned Names and Numbers (ICANN) has one of the longest track records, dating back to the 1990s. ICANN originally was a creation of the United States government, but has expanded its board and procedures to be a more international body. It oversees new Internet domain registrations and IP addresses within those domains. In November 2011, the National Telecommunications and Information Administration (NTIA), the Department of Commerce's expert on Internet governance, announced that the contract giving ICANN authority over the domain name system would be open to competitive bidding. It is unlikely that another organization would be able to match ICANN's resources and expertise closely enough to win the contract. However, NTIA and Commerce want ICANN to be more responsive to the government's requests for information and to provide more reasoned and thorough explanations of its decisions.[49]

Started in 1994, the World Wide Web Consortium (W3C) also provided early technical guidance for the Internet. The organization now has offices around the world and members from businesses, universities, governmental entities and civil

46. Catherine Trautmann, "Multistakeholderism Needs Fundamental and Decisive Legitimation," in *Internet Policy Making*, ed. Wolfgang Kleinwächter, Multistakeholder Internet Dialog, Co: llaboratory Discussion Paper Series No. 1, 2, (Hamburg, Germany: Internet & Society Co: llaboratory, 2011), 33-35.

47. Internet Society, "Who We Are," Accessed March 16, 2012, http://www.isoc.org/isoc/.

48. Internet Architecture Board, "Overview," Accessed March 16, 2012, http://www.iab.org/about/iab-overview/.

49. Kristin Weinberger, "A Full Guide to the New IANA Contract," *.nxt*, November 17, 2011, http://news.dot-nxt.com/2011/11/17/full-guide-iana-contract.

society groups as well as interested individuals. W3C does face challenges and criticism. Stakeholders have raised concerns about the organization's effectiveness in keeping standards up to date.[50] Some believe the balance of power in its decision-making process needs to be altered.[51]

A newer generation of MSEs has begun to address other areas. One relatively new participant in the field, the Internet Governance Forum (IGF), has dramatically expanded participation in the international discussion over the Internet's future. In 2006, the United Nations established the IGF in response to a 2005 report from the World Summit on the Information Society (WSIS). The IGF's central body is its Multistakeholder Advisory Group (MAG), made up of 46 representatives from government, business and civil society, and in which all members participate in equal standing. IGF's "dynamic coalitions," addressing specific issues of concern such as privacy and linguistic diversity, generally allow participation by any interested individual. The Forum's annual meetings have generated unprecedented participation from citizens around the world. More than 2,000 participants attended the 2011 meeting in Nairobi, Kenya.

Part of the reason the IGF has succeeded in fostering free dialogue about Internet governance may be its disinclination to seek policy-binding consensus. This may also be one of the IGF's major limitations. The lack of pressure to negotiate binding rules allows freer communication and the inclusion of many stakeholders otherwise not included in the Internet governance process, but it may not be an adequate way to implement key Internet-related principles. However, the IGF has demonstrated a significant "soft power" ability to define key issues and shape norms among the diverse parties it draws to the conversation.[52]

The Global Network Initiative (GNI) is an international multistakeholder effort at safeguarding freedom of expression and personal privacy against government restrictions. In 2008, Microsoft, Yahoo and Google announced the creation of GNI.[53] GNI's initial mission was to create core documents laying out principles,

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50. Vlad Alexander, "Why Is the HTML Specification a Failure?" *Rebuilding the Web*, October 27, 2009, http://rebuildingtheweb.com/en/html-spec-failure/. Also, companies focused on solutions to immediate technical problems have also expressed worry that W3C's more creative and far-thinking projects draw the organization's resources away from the creation of practical solutions. See Antone Gonsalves, "W3C Work on Semantic Web Draws Criticism," *Information Week*, April 8, 2003, http://www.informationweek.com/news/8600230.

51. Paul Festa, "Critics Clamor for Web Services Standards," *CNET News*, February 12, 2002, http://news.cnet.com/2100-1023-834990.html. For faint praise of the W3C's improvements in access to more diverse stakeholders, see Molly E. Holzschlag, "Misplaced Anger: A Rebuttal to Zeldman's Criticism of the W3C," *The Web Standards Project*, July 26, 2006, http://www.webstandards.org/2006/07/26/misplaced-anger-a-rebuttal-to-zeldmans-criticism-of-the-w3c/.

52. Wolfgang Benedek, Veronika Bauer and Matthias C. Ketteman (eds.), *Internet Governance and the Information Society: Global perspectives and European Dimensions,* (Utrecht, Netherlands: Eleven International, 2008), 76.

53. Geoffrey A. Fowler, "Parsing the Google, Yahoo, Microsoft, Global Network Initiative," *Wall Street Journal,* October 28, 2008, http://blogs.wsj.com/chinarealtime/2008/10/28/parsing-the-google-yahoo-microsoft-global-network-initiative/.

implementation guidelines and an accountability plan to ensure that its members act in support of human rights worldwide.[54]   Despite two years of active collaboration among representatives from business, government, academia and civil society, the resulting documents have received mixed responses. GNI continues to work on issues at the intersection of human rights and the Internet, requiring and reviewing reports from its member companies, seeking new members and supporting research on new topics.[55]

Even as entities such as the IGF generate broad discussion of new issues, more focused expertise and labor may be required to make policy progress in specific areas. The Broadband Internet Technical Advisory Group (BITAG) seeks to fill that gap for the issue of network management. By convening committees of technical experts to address the appropriateness of specific actions by companies that affect online traffic flows, BITAG seeks to create certainty in a specific area of Internet policy. BITAG's scope is intentionally narrow and United States-focused, at least for now.

As the current MSE landscape demonstrates, many gaps in Internet governance cry out for their own MSEs, such as in the areas of privacy and cybersecurity.[56]

In order to focus the discussion on Internet governance, in the November 2011 Plenary Session, the Aspen IDEA staff presented an idea, labeled a "thought experiment," for implementing the Aspen IDEA Principles through MSE governance.

The Staff "Thought Experiment."   The Aspen IDEA proposal had two basic design principles: (1) respecting national sovereignty (hence the proposal did not depend on trade treaty-based governance) and (2) maximizing the use of expert, pragmatic and efficient MSEs for accomplishing many of the goals of regulation and standard setting.   The building blocks of the staff proposal were MSEs called "subject matter multistakeholder organizations" (SMOs). The SMOs would engage in setting standards and guidelines for behavior, certify companies as complying with national policies, certify countries as having national policies that comport with the Principles and reach reasoned conclusions on any disputes brought to them. The staff proposal recognized a need for "connective tissue," i.e. the concept of mutual recognition among the SMOs. The MSEs discussed above would be examples of some necessary SMOs, but they would need to define their goals with

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54. Global Network Initiative, "Core Commitments," Accessed March 16, 2012, http://www.globalnetworkinitiative.org/corecommitments/index.php.

55. For example, a report containing recommendations for companies and users regarding control of content in online services by GNI members the Center for Democracy and Technology and the Berkman Center for Internet & Society grew out of a GNI event on the topic. Erica Newland, Caroline Nolan, Cynthia Wong and Jillian York, "Report on Account Deactivation and Content Removal: Guiding Principles for Companies and Users," Berkman Center for Internet & Society, Harvard University, September 21, 2011, http://www.globalnetworkinitiative.org/newsandevents/Report_on_Account_Deactivation_and_Content_Removal.php.

56. See the Common Criteria Recognition Arrangement, http://www.commoncriteriaportal.org/.

more precision in order to fit within the framework advanced by the staff.

As an example of such precision, an SMO might certify a company as complying with the policies of a particular government. That country, as a participant in the SMO, would treat such a certified company just as it would treat all other companies in its jurisdiction. In short, it would adhere to a nondiscrimination principle.

There would be no limit to the number and variety of SMOs. The network of SMOs would expand and evolve with technology and society. They would each adopt the Aspen IDEA Principles as part of their charters. Thus, the Principles would become "connective tissues" across all the SMOs.

Although a central governmental body may struggle to create a new bureaucracy covering an emerging network technology in a short period of time, such an SMO system would avoid delays and costs by allowing experts and interested parties in new areas to form bodies to recommend regulatory approaches, saving time and resources. Additionally, SMOs exist outside of the daily political wrangling of individual governments, making them easier for companies, NGOs and even other governments to trust as independent evaluators.[57]   Due to that independence, governments may also be more willing to learn from SMOs rather than from larger political actors. Whatever the specifics of its implementation, a governance system for global digital communications based on SMO knowledge and independence could reap enormous rewards for nations worldwide and the citizens and companies they represent.

> **...a governance system for global digital communications based on SMO knowledge and independence could reap enormous rewards for nations worldwide and the citizens and companies they represent.**

Under one variation of the "thought experiment," governments would each enter into an identical contract with a unique SMO, called a Protocol Certification Organization (PCO). The PCO itself would be an MSE funded by companies, foundations and contracting nations. The PCO would foster, financially support and assure the reasonable performance of various expert international multistakeholder organizations, each organized around one or more of the subject matter

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57. One example of an "SMO-like" body successfully operating in another field is the International Accounting Standards Board. See www.ifrs.org.

topics addressed by the Principles. The PCO would rule on the reasonableness of any SMO's decision making, if asked to do so. The PCO would report its decision to the public and to all the contracting governments.

Advocating the MSE Model. Despite MSEs' expertise and history of Internet management, their control over Internet governance is increasingly under threat. They are not adequately prepared to defend themselves or to demonstrate their efficacy. There is no single, central set of principles and structure for their efforts. That is one reason to suggest that all adopt in common the Aspen IDEA or similar Principles. MSEs are already re-litigating the same issues, using precious resources redundantly. Nor is there a mechanism to foster collective action in interdependent areas of concern.

There was no consensus among the IDEA participants on whether any more "connective tissue," vertical or horizontal, or both, should be created. Some are optimistic that MSEs will evolve in appropriate ways to satisfy the concerns described in this report. That may be true, but any evolution needs to occur quickly, because the dangers to the Internet's present and future development are real and urgent. Moreover, important decisions need to be taken in the near future. Generally, "plan beats no plan," as U.S. Treasury Secretary Geithner famously said in the most critical moments of the financial crises of 2008–2009.

In considering what plan is preferable, the Aspen IDEA Project identified at least the following attributes as important for any MSE Internet governance structure to be useful:

- Adherence to principles, either IDEA's or a reasonably comparable version

- Open membership and participation

- Open processes

- Reasoned deliberation and explanation of decisions

- Acceptance of a willingness to be challenged and to have to explain processes to other forums

- A dispute resolution mechanism

- A statement of purpose (standard setting, codes of conduct, topical focus, and so forth)

- Support, including financial, for the continuous and well-informed participation of civil society in sufficient form and number to accommodate that amorphous but vibrant community within the Internet's broader community

- An enforcement mechanism

Stress Testing the IDEA Principles and MSE Governance

The test of any set of principles, even if all MSEs adopt them, is whether they solve problems that most all agree need solving. This section applies the Aspen IDEA Principles to four real world situations. The stress tests focus on the application of the SMO concept to specific cases.

The Case of WikiLeaks

WikiLeaks is an international nonprofit media organization that publishes secret, classified and confidential information, primarily from government sources. The organization released documents embarrassing to the governments of Somalia, Peru, Kenya and other nations in 2006. But its international notoriety exploded in 2010 when it released a series of documents from United States military and diplomatic sources. These releases included video of a United States helicopter attack on apparently unarmed Iraqi civilians and cables by State Department employees criticizing world leaders. The Department of Justice commenced an investigation. Political pressure mounted. Several major companies who provided services to WikiLeaks, including Amazon, Apple, PayPal, Visa and MasterCard, terminated their relationships with the organization. Some media and human rights organizations also criticized WikiLeaks for failing to redact information that could harm Afghan civilians serving as informants and other innocents. Supporters at other publications and groups, however, welcomed the release of the information and established mirror sites to keep the documents available online.

How should governments, businesses and other participants in the global digital marketplace have approached this thicket of thorny issues? The Aspen IDEA Principles provide guidance. Under the Principles, governments must balance preservation of freedom of expression as defined in international treaties on human rights with the need to preserve cybersecurity and national security. Above all, any government actions regarding WikiLeaks and other online publishing of information must be "transparent, necessary, provided for by law and consistent with international standards on free expression and privacy."

In the WikiLeaks case, an SMO could have struck the balance the Principles call for. Such an SMO might have included for-profit firms and NGOs. It might have concluded that WikiLeak's conduct had gone too far toward disclosure of information without considering sufficiently the national security and personal safety concerns involved. In that case, the SMO would have declared WikiLeaks to be unwelcome in the Internet community and thus would have legitimized the refusal of certain important firms to provide the platforms necessary for

WikiLeaks. Such a process would have created a clear precedent and would have extended the rule of law to a troublesome but important fact situation. Governments then would benefit from the creation of clear and internationally standardized rules for responding to situations like WikiLeaks in the future, a task that SMOs could help accomplish.

The Case of Internet Privacy

In 2010, the *Wall Street Journal* investigated the use of tracking technologies and discovered that the top 50 sites worldwide each placed an average of 64 trackers on visitors' computers. The *Journal* revealed that data-collection companies tracked the behavior of children, collected geographic location information via mobile devices, used deep-packet inspection to identify users across multiple devices and compiled detailed dossiers on private individuals using social networking, résumé, government and other sites among other potentially distressing developments. These practices, along with evidence of similar actions, intensified the call for new privacy rules, either from industry self-regulation or by means of legislation, or both.

The IDEA Principles regarding consumer protection and privacy speak to these issues. Specifically, these actions by private companies revealed by the *Journal* may be contrary to the IDEA Principles' emphasis on public sector directives to maintain enhanced consumer protection, including limits on third-party information disclosure and respect for international standards of data treatment. Under MSE governance, the facts would be established in an open forum.

> **…a specific code of conduct…would allow legitimate business practices to proceed [and] assure individuals that they could maintain reasonable expectations of privacy as to their use of the Internet.**

Private and public sector parties would work toward a specific code of conduct that all relevant firms should follow. This process, if successful, would allow legitimate business practices to proceed while at the same time it would assure individuals that they could maintain reasonable expectations of privacy as to their use of the Internet.

The Case of Google in China

Google began offering a Chinese version of its website in 2000, but the venture soon faced challenges. Two years later, an investigation revealed that Chinese Internet service providers were heavily filtering Google's results, slowing or blocking access for China's 250 to 500 million Internet users. With users flocking to Google's competitor Baidu, a Chinese search engine, Google agreed to filtering requirements demanded by the Chinese government in order to operate as a licensed company in the country. In 2009, a cyberattack known as Operation Aurora mined proprietary information from Google's networks. This was part of a larger series of attacks that experts suspect were carried out by the Chinese government. Google continues to operate the Chinese version of its site with government approval, but the governmental restrictions prevent Google from offering the value of its search engine in competition to Baidu and new competitor GoSo.cn, owned by one of China's state-run media organizations.

China's actions implicate the IDEA Principles relating to the free flow of information and trusted environment. The Principles require that any government restriction on the free flow of information online, including filtering of content, "be transparent, necessary, provided for by law and consistent with international standards on free expression and privacy." The Operation Aurora attacks also violate the Principle's directive to respect the privacy of individual users and do not meet the need for "clear, transparent and impartial laws, including due process protections and reasonable notice" needed to preserve a trusted online environment in regards to privacy. Finally, the Principles recommend the creation of international standards for cybersecurity, a measure that could prevent future attacks.

SMOs may not have direct enforcement power, but they do have the ability to influence international opinion and help build consensus. Here, SMO actions could have drawn attention to freedom of expression issues worldwide. An SMO on cybersecurity also could have significant impact on public opinion. By encouraging collaboration between technical and security experts, governments and businesses, such an SMO could facilitate the setting of security standards and policies to prevent, identify and react to cyber-attacks quickly and effectively.

> **SMOs may not have direct enforcement power, but they do have the ability to influence international opinion and help build consensus.**

Such an initiative would require significant financial and other resources, but those investments would pay large returns in the safety of individual privacy and

industry secrets. Perhaps the most effective response SMOs could orchestrate would have been a collective refusal by the global Internet community to connect China to the rest of the world—even for a limited time period. This ostracism might have had salutary effects.

The Case of China's Indigenous Innovation Policies

The Chinese government has developed a strategy for "indigenous innovation" that it hopes will allow Chinese companies to surpass current leaders in the United States, EU and Japan in ICT and other technology innovations. A set of guidelines created in 2006 encouraged Chinese government agencies to promote domestic innovation companies through preferential procurement, discriminatory standardization, tax incentives and financial support for research and development (R&D). Holders of intellectual property interests in other nations have been particularly concerned about China's encouragement of "assimilating, absorbing and re-innovating" foreign technologies into Chinese companies.

First, several Principles relating to market access speak against China's protectionist actions. Giving Chinese companies advantages through discriminatory procurement and standards setting fails to preserve technological neutrality in ICT and related markets. Second, respecting intellectual property rules in the ICT ecosystem is key to creating the trusted environment described in the Principles. China's "assimilation" of technologies patented by parties in other nations may violate various international agreements governing intellectual property use.

Existing and new SMOs could play a key role in addressing these and similar "indigenous innovation" policies. Standards-setting organizations, including the IETF and other examples of multistakeholder entities in the ICT sphere, should maintain influence over standards so as to prevent discrimination against foreign companies and fragmentation of technology markets. Cooperation with the international trade system can reinforce existing agreements and point to areas where additions to agreements can make significant impacts in trade areas. A strong "name and shame" regime generated by SMOs can draw attention to these and other discriminatory policies, increasing pressure on nations to comply with common principles or risk retaliation and isolation. SMOs focusing on intellectual property might even offer expert opinion in judicial proceedings.

…respecting intellectual property rules in the ICT ecosystem is key to creating the trusted environment described in the Principles.

These examples raise some of the hard cases any Internet governance system will face. But hard cases lead to good practices, as opposed to bad law. In hard cases, MSE governance can be the optimal way to build broad collective cooperation in framing responses. Hard cases can exemplify why MSE governance is preferable to more legalistic solutions, and certainly to indifference or inaction.

Conclusion

The challenges to creating a single global Internet are large and growing. Annual ICT revenues now exceed $4 trillion and the ICT industry accounts for a high percentage of new high-skilled jobs worldwide. Failure to address in a timely manner the fundamental flaws that threaten to cripple and fragment the Internet's growth and its seamless nature are major issues that need to be addressed now.

The grand political battles in the United States and Europe over budget deficits and economic issues, the existence of unsustainable trends across geopolitical regions and the rapid spread of the Internet's related technologies all heighten the importance of the Aspen IDEA Project effort to promote policies among governments to ensure a robust, global and seamless Internet. Ensuring that the voices of NGOs and firms with distinctly different priorities are considered only makes the task more difficult. For example, differences between Internet edge companies and content firms over intellectual property and the free flow of information entered often into the discussions, making compromise on key policies and approaches difficult to resolve. The time was not yet ripe for agreement.

The Principles, recommendations and implementation efforts of the Aspen IDEA Project may never be embraced in full or by all relevant stakeholders. Indeed, time and new technological change will make some of the details outdated before they can be discussed, negotiated and agreed upon. Still, the Aspen IDEA participants, who gave so generously of their knowledge and time, have enabled the Aspen IDEA Project to offer a valuable start towards what is needed. The ideas of IDEA set forth in this report are intended as a valuable stepping stone to a successful Internet future.

APPENDIX

Navigating the path to change always takes time, leadership and trust building in order to craft acceptable compromises, both within and among countries. The more players and the higher the stakes, the harder it is to reach agreement. Yet, the cost of waiting for crisis or collapse before implementing reform could be staggering.

The Aspen Institute IDEA Project
Framework Paper

October 2010

The Aspen Institute International Digital Economy Accords (IDEA) Project envisions an interconnected global digital platform available to all, where the freedom to learn, associate, promulgate and innovate in profoundly surprising ways, and to do business without intrusive and unnecessary regulation is broadly enshrined and protected. But a series of threats to this vision exist that require serious responses. The threats include policies and practices that deny returns to innovators and tie market access to extraneous conditions or deny market competition to promote national champions. Difficulties multiply if there are ill-conceived or overly stringent responses to threats to core public interests concerning security, privacy and theft. Economic and social goals both will suffer if freedoms of use are not honored or deeply accepted. The goals, in summary, are the pursuit of three "freedoms:"

- The freedom to innovate

- The freedom to enjoy privacy, security and property

- The freedom of information and association

This paper provides an analysis of the strategic landscape and the choices for collective action to improve global welfare. It first explains why the global information and communication technology (ICT) market is at a transformative moment, an inflection point that can change the dynamics of innovation and growth in ways that could spur global prosperity. Parts I and II sketch the logic of the inflection point, its implications for policy choices and its impact on economic growth.

Such fundamental changes in the global market for ICT influence, and are influenced by, the geo-economic context of our global choices. As the Internet emerged, global leaders avowed support for competition and equity as pillars of the new digital age. Much work remains, but the spread of communications and information services emerged much faster than anybody predicted before the debut of the Internet. More fundamentally, the takeoff of economic growth in a broad range of lower income countries transformed the economics of ICT markets. New suppliers and new consumers in emerging markets garnered increased influence in world decision making. Forging innovations in global ICT governance is now more complicated, and many shared values among traditional ICT market leaders (i.e., the OECD nations) are not fully endorsed by new players.

Decisions about reconciling policies that influence competition, equity and broader public interest values involving freedom of information, privacy and security is a matter of concern for the societal paths of all countries. Part III argues that there is a closing window of opportunity for concerted OECD leadership. The United States and other like-minded countries have their best chance to use their market and policy leadership to tilt the ICT path until about 2025. After that it will become much more complicated to agree on a value mix that benefits everybody while respecting legitimate differences in national preferences on core societal questions.

What are our options for action? No one policy or institution alone can create a positive path for ICT. Some matters will be left in whole or in part to commercial and/or nongovernmental stakeholders. That said, we envision three broad fronts for initiatives on behalf of the three freedoms. First, we expect inter-governmental agreements (e.g., treaties or other enforceable agreements) that build on executive agreements or understanding for parallel policy actions by government ministries. Second, norms can be crafted using inter-governmental endorsements (as occurs at APEC or the OECD) or through nongovernmental pacts, such as codes of conduct or good practices. Such norms may be worked out in partnership with nongovernmental organizations. Third, new nongovernmental institutions may develop new capabilities to monitor and enforce agreed upon norms. Part IV sketches an initial vision of these three options and considers the prospects for cooperation and action. As always, the levels of resolve and trust among leaders matters. Ultimately, the Aspen Institute IDEA project is an exercise in thought creation and trust building designed to facilitate real change, not just policy papers.

I. The ICT Inflection Point

The global information and communications market is at an "inflection point"—a point of change from one market dynamic to the next.[1] This market dynamic, and its implications for innovation, is the inflection point. The most profound implication of this shift is that ICT capabilities will be more transformative for every part of our economic and societal processes. Health care and medical research will evolve. The rise of social networks changes the ways in which we associate. Metaphorically, cheap, powerful ICT capabilities are *spreading horizontally* from the office building to all of life's activities globally and *penetrating vertically* into the corners of processes previously lightly touched (from human-centric to machine-to-machine capabilities; from networked cameras that monitor crowds to implanted bio-medical devices that monitor and respond to an individual's health).

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1. Peter F. Cowhey and Jonathan D. Aronson with Donald Abelson, *Transforming Global Information and Communications* (Cambridge, MA: MIT Press, 2009).

Three key technological changes are driving this market and technological transition. First is the *shift from integrated architectures to modularity.* Old ICT architectures were integrated and proprietary (e.g., in the early computer industry, manufacturers produced closed systems with proprietary interfaces that prohibited mixing and matching.) At one time IBM software or peripherals would not work with an HP computer and vice versa. As a result, when vendors established a strong presence at one layer of the stack—for example, the IBM processor—they could sell that product as an integrated system to leverage single-solution market dominance over the entire technology platform.

In the new market dynamic, ICT architectures are increasingly modular: instead of a single integrated system, manufactures produce individual components that share a standard interface, and consumers can mix and match these components to create unique platforms. Modularity lowers entry barriers across all ICT sectors (equipment, software, services and content) because vertical integration is no longer needed to obtain market share. Instead, firms specialize in a single product or service solution and compete on a relatively level playing field at that particular layer of the ICT stack. More vendors enter the market and competition increases, so it is more difficult for market leaders to dominate an entire technology platform.

Modularity is also increasing consumer choice. Standard interfaces facilitate substitution among rival products, and the increasing array of vendors gives consumers a wide range of substitutes to choose from—instead of choosing among a small group of vertically-integrated system providers, consumers can now pick their favorites at every layer of the stack.

The second fundamental change is the *continuation and spread of the "cheap revolution."* The microprocessor's price-performance revolution, symbolized by Moore's Law, is exceeded by data storage and fiber optic performance curves. There are massive economies of scale segments in these industries, and specialist firms also thrive in today's modular environment. Giants and specialists both accelerate the mix-and-match choices for designers of new solutions. And, the software industry is beginning to selectively enter the "cheap revolution" as interoperability standards and commercial codes with modular interfaces are "repurposed" to use new applications.

The third change is the *widespread deployment of high-speed broadband networks, both fixed and wireless.* In the old market dynamic, service vendors transmitted voice, media and data content within rigid geographical boundaries and over separate telecom, broadcasting and Internet networks. In the new market dynamic, a wide variety of network services (e.g., voice) and content (e.g., AV content) can be transmitted over a single, converged broadband network and received on multi-use digital devices, thus blurring the traditional network and device divides between voice, data and broadcasting. Furthermore, unlike their

single-format, geographically limited predecessors, broadband networks can transmit services and content across national borders, thus blurring traditional geographical boundaries.

Network convergence further increases ICT competition by facilitating cross-over from one service or device sector to another—i.e., VoIP providers are competing with the traditional telecom operators in basic voice services, and mobile operators are competing with traditional network broadcasters by transmitting digital media content to increasingly sophisticated mobile video screens.

The Inflection Point Presents New Opportunities and Challenges

Old Market Dynamic:

Integrated Architectures

Proprietary Interfaces

High Costs and Performance Limitations Cluster ICT Infrastructures and Services around Large Commercial Users

Separate Voice, Data and AV Networks

Many ICT Markets Divided Along Rigid National Boundaries

Predictable Business Models

Progressive Policies Can Unlock New Markets, Fuel Competition and Innovation

Legacy Policies Can Hinder New Growth Models, and Old Models Will Face Diminishing Returns

New Market Dynamic:

Modular Equipment, Software and Content

Common Interfaces

Cheap Revolution Enables Geographically and Functionally Pervasive ICT Capabilities that Serve a Wide Range of Customers and Applications

Broadband Networks Integrate Voice, Data and AV Content

Markets Cross National Boundaries

Volatile Business Models

These critical shifts—from integrated architectures to modularity and from separate voice, media and data networks to converged broadband—are increasing ICT market competition at all layers of the stack. As a result, ICT firms can no longer achieve the same returns with traditional (leverage-based) business models: new strategies are needed to adjust to an increasingly competitive global market environment. While there is still a need for vigilant competition policy, the risks are more selective in the past.

At the same time, the inflection point is opening many new market opportunities. For example, instead of transmitting media content to a geographically defined market over traditional broadcast networks, content providers can now distribute digital AV content over converged broadband to a much larger global audience. In the IT services sector, "cloud" providers can distribute application processing and data storage services to a wider range of consumers over the web and achieve new global economies of scale.

However, these new market opportunities require new business models, and many of the new models are not supported by the existing ICT governance arrangements. The IDEA Project seeks to renovate current ICT governance arrangements to unlock these new market opportunities and facilitate inflection point innovation and growth. We also seek solutions to legitimate public interest concerns—from traditional concerns over competition and universal access to ICT capabilities to goals related to freedom, security, privacy and protection of intellectual property.

II. The Importance of Policy Action—the ICT Global Economic Multiplier

The ICT sector is a huge global market and a critical driver for overall economic growth. Global ICT market spending will likely surpass $4 trillion in 2010, accounting for just over 6 percent of global GDP and 20 percent of global trade.[2] (In contrast, the world auto market was approximately $3 trillion in 2007.) Unlike many critical economic sectors, ICT spending is already recovering from the 2008-2009 recession. The market should grow at a compound annual growth rate of 6.2-6.4 percent over the next 5 years, and global spending will likely approach $5 trillion by 2013.[3]

Global broadband expansion and the digital content migration are expanding ICTs into the media and entertainment industry, and the ICT market is even bigger if digital media revenue is included. Global revenue for the digital content market (gaming, video, music and advertising) totaled approximately $43 billion in 2007, and the market could surpass $180 billion by 2015.[4] Digital media and advertising grew steadily throughout 2008 and 2009 despite the overall decline in global consumer spending, and digital spending already accounts for approximately 20 percent of total entertainment and media revenue in some regions.[5]

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2. See Telecommunications Industry Association (TIA), *2010 ICT Market Review and Forecast* (Arlington, VA: TIA, 2010) and World Information Technology and Services Alliance, "ICT Spending to Bounce Back" (Press release, May 27, 2010), www.witsa.org/v2/media_center/pdf/WITSA_PressRelease_ ICTSpendingToBounceBack_20100527_FINAL.pdf.

3. TIA, *op cit.*

4. 2007 revenue from *OECD Information Technology Outlook 2008.* 2015 estimate is an extrapolation based on these global forecasts: Magna Global: $103 billion online advertising sector by 2015; IE Market Research: $32.5 billion digital music sector by 2014; eMarketer: $1.3 billion mobile video sector by 2014; In-Stat: $4.5 billion online video sector by 2012; Pyramid Research: $18 billion mobile gaming sector by 2014; Strategy Analytics: $24 billion online gaming sector by 2013,   http://www.oecd.org/document/47/0,3746, en_2649_33757_46439983_1_1_1_1,00.html.

5. In the U.S. market, PWC expects digital spending to account for 25% of the total U.S. E&M revenue by 2013. PricewaterhouseCoopers, "Acceleration of Digital Transformation to Create Increasingly Fragmented Entertainment and Media Market by 2013," (Press release, June 16, 2009), http://www.globenewswire.com/ newsroom/news.html?d=167177.

As a result of these strong growth trends, the ICT sector should directly contribute 1.2 million new jobs by 2014 and account for 8.7 percent of total global GDP by 2020.[6]

Furthermore, ICT innovations create new economies of scale, open new markets, lower transaction costs, improve supply chain efficiency and facilitate R&D across a variety of economic sectors. For example, cloud computing is already speeding innovation by connecting enterprises with higher levels of technology at reduced costs, facilitating international collaboration and making it much easier to analyze large databases to identify critical trends. In the medical field, ICT network innovations are enabling remote medical examinations that extend services into traditionally underserved rural markets, and microchip innovations are creating a new market for implantable biomedical devices.

Table 1: Economic Impact from Increasing Emerging Market Mobile Broadband Penetration to 54%

	GDP Growth ($ Billion)	Job Growth (Million Jobs)
Asia	150—180	6.6—8.0
Africa	40—90	1.3—3.1
Central & Eastern Europe	60—80	0.9—1.3
Latin America	50—70	1.1—1.7

Source: WEFORUM Global IT Report 2009-2010, citing McKinsey & Co. analysis.

Due to these factors, ICT network expansion strongly influences overall national productivity. The U.S. Broadband Coalition estimates that U.S. broadband investments produce a tenfold economic return. The impact is even stronger in emerging markets. McKinsey estimates that increasing emerging market mobile broadband penetration to 54 percent—i.e., bringing emerging market broadband penetration to the 2009 fixed penetration rates in Western Europe—would yield returns of $420 billion and up to 14 million jobs to the global economy (Table 1).[7]   Overall, the combination of direct and indirect ICT impacts means that every 10 percent increase in broadband penetration increases a country's GDP growth by at least 1 percent (Figure 1).[8]

6.   AT Kearney job forecast and McKinsey GDP forecast based on Global Insight data cited in World Economic Forum, *Global Information-Technology Report 2009–2010* (March 25, 2010), http://www.weforum.org/reports/global-information-technology-report-2009-2010.

7.   Ibid.

8.   Christine Zhen-Wei Qiang and Carlo M. Rossotto, with Kaoru Kimura, "Economic Impacts of Broadband," 2009 World Bank Information and Communications for Development (IC4D) Report, (Washington, DC: World Bank, May 22, 2009), http://siteresources.worldbank.org/EXTIC4D/Resources/IC4D_Broadband_35_50.pdf.

**Figure 1: The ICT Multiplier –
Increase in GDP Growth per 10% Increase in ICT Penetration**
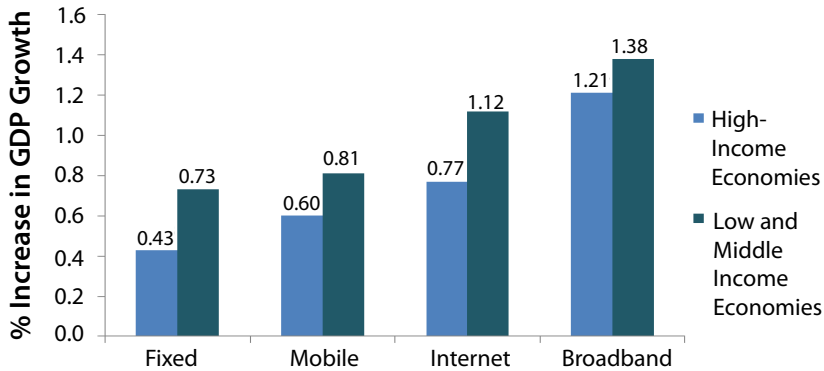
Source: 2009 World Bank Information and Communications for Development (IC4D) Report, Ch. 3.

III. The Window for Action—Responding to Shifting Global Market Power

Strong leadership will be needed to identify new best-practice norms and principles at the inflection point and to build an international consensus around innovation-enabling governance arrangements. These norms, principles and arrangements will need to benefit people throughout the world in gaining access to the global communications and information ecosystem.

Someone has to move first. It is important to understand the three reasons why the U.S. is in the position to start this leadership process.

First, the U.S. currently commands dominant market share. In 2008, U.S. ICT expenditures totaled $1.06 trillion.[9] The EU was close behind at $1.01 trillion, and strong EU support will be critical. However, the European ICT market is still fragmented along national boundaries, and fragmentation significantly weakens EU market power. Japan (at $350 billion) and China (at $327 billion) are the second- and third-largest single-country spenders, but their expenditures are only 30 percent of the U.S. total.

In addition, U.S. market strength holds across all ICT sectors. Ranked by 2006 revenues, U.S. firms were among the global top three in communications equipment (Motorola, Cisco), IT equipment (HP, IBM, Dell), semiconductors (Intel, Texas Instruments), IT services (EDS, Tech Data), software (Microsoft, Oracle) and Internet-based activities (Amazon, Google, AOL).[10] Electronics manufacturing is the only sector without a U.S. presence in the global top ten.

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9. OECD *Information Technology Outlook 2008.*

10. Ibid.

Second, in 2006 the U.S. also dominated in ICT R&D spending—it was the highest ICT R&D spender ($242 billion), followed by the European Union ($153 billion), Japan ($107 billion) and China ($62 billion).[11] The U.S. also has a large lead in installed ICT capital stock, which speeds U.S. consumer uptake of ICT innovations and encourages further investment (since rapid consumer uptake generates quick returns). So, U.S. firms probably will maintain a leading edge in ICT innovation, at least in the near term.

Figure 2: Total ICT Spending, Largest Global Markets
(\$Billions in 2008 Prices)
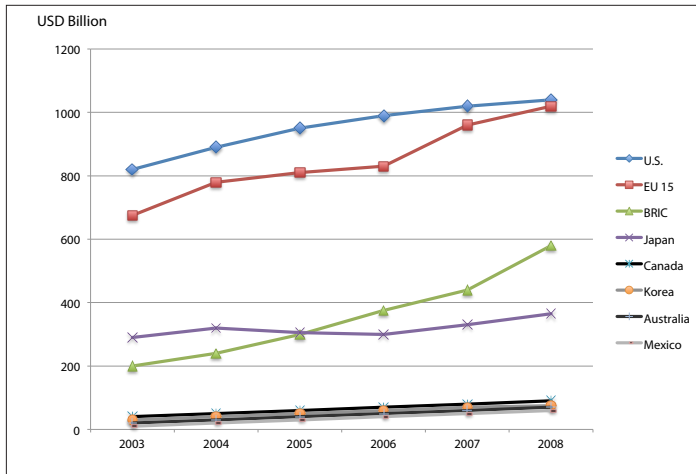
Source: OECD Information Technology Outlook 2008, based on data provided by WITSA.

Figure 3: ICT Business R&D Spending, Global Top Four
(Constant 2000 PPP USD)
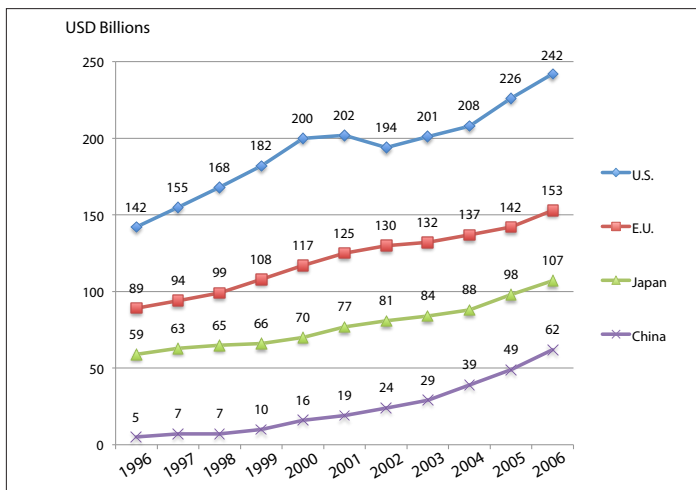
Source: OECD Information Technology Outlook 2008. New PPPs used for China, Japan and the U.S.

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11. Ibid.

Third, the United States holds a strong lead in AV content and IT services, sectors that face some of biggest inflection-point challenges and opportunities. For example, U.S. firms dominate in high value-added AV content, and inflection point market changes are seriously undermining current business models in the AV content sector. As a result of convergence trends, broadcasters face serious competition from new IT and telecom entrants, and content pirates are increasingly using broadband advancements to expand illegal distribution channels and undermine current AV Intellectual Privacy Rights and royalty licensing regimes. But, these same technological changes could open totally new legal distribution channels for AV content. Although content providers face increasing competition in their home markets, global broadband deployment and international AV standards can open an entire new range of international consumers.

In short, U.S. firms are on the leading edge of ICT market innovation, and are already encountering the inflection-point challenges that slower innovators have yet to reach. Moreover, since the U.S. is the only single-country ICT market with a large and diversified global market share, it is in a unique position to act on the full range of emerging challenges before they can negatively impact global ICT market growth. Unlike other single-country markets with a more narrow ICT presence, if U.S. government officials team with U.S. industry leaders and the NGO community to seek inflection-point governance solutions, they can tap into a broad range of industry expertise spanning all layers of the ICT stack that will enable the U.S. to provide unified global leadership for the full range of ICT policy challenges.

However, the time frame for U.S. leadership is limited. The global economic center of gravity is slowly shifting toward the emerging markets. Non-OECD countries already account for 49 percent of the global economy, and this number could rise to 57 percent by 2030. [12] In the ICT sector, the emerging markets—particularly Brazil, Russia, India and China (the BRIC markets)—are growing much faster than the developed markets. Between 2003 and 2008 the BRIC markets grew at 18.2 percent compound annual growth rate, and they will likely grow 8.9 percent in 2010.[13]

Due to these uneven growth rates, U.S. and overall OECD market share is steadily decreasing. In 2008 the OECD share of global ICT spending was 76 percent, but that share has been decreasing by approximately 2 percentage points per year. [14] If this trend continues, the OECD and non-OECD portions of global ICT spending should reach parity around 2024.

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12. OECD, *Perspectives on Global Development 2010: Shifting Wealth,* http://www.oecd.org/document/8/0,3746, en_2649_33959_45462088_1_1_1_1,00.html.

13. When the BRIC markets are excluded from the 2010 global forecast, the expected global growth rate drops from just over 6% (all with BRIC included) to 4.1% (all non-BRIC). TIA 2010 ICT Market Review and Forecast. Projected BRIC growth rates available at http://www.tiaonline.org/market_intelligence/mrf/index_MRF_page_4.cfm.

14. OECD *IT Outlook 2008.*

**Figure 4: Global ICT Spending: OECD versus Non-OECD
Share of the Global Total**
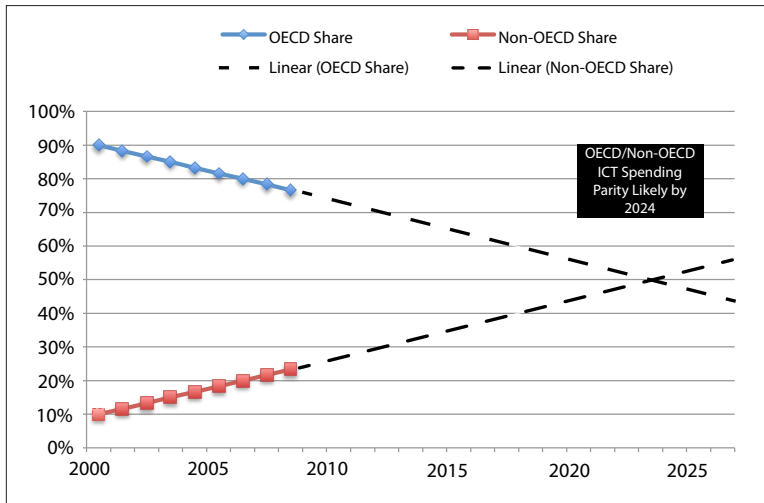
Source: *OECD IT Outlook 2008 (2003-2008 data); OECD IT Outlook 2006 (2000-2005 data). Linear
projections based on the 2000-2008 OECD data.*

At the inflection point, this shifting market gravity is critical for three reasons. First, emerging market access will become increasingly important for ICT products and services. Modularity, convergence and network expansion will make it much harder for a single vendor (or group of vendors) to dominate a particular geographical region. To remain competitive, ICT vendors must cast a broader geographical net, and emerging markets (with their escalating GDP and consumer buying power) will be a key area for growth.

Second, many emerging markets are facing strong internal pressures to roll out protectionist industrial policies that are not compatible with inflection point innovation and growth. These countries are now reaching the development stage where their own home-grown ICT firms can compete in the global market, and their rising domestic GDP and consumer buying power is increasing domestic consumption for ICT products. In response, many emerging market regulators are rolling out new industrial policies designed to turn their domestic markets into protected incubators for homegrown standards and firms, primarily by limiting the entry and presence of foreign standards and firms. Although these policies satisfy some short-term emerging market domestic interests, they also restrict competition, and that restricts longer-term emerging market innovation and growth.

Third, the increasing importance of emerging markets on the world stage makes it critical that they have a seat at the table for the next round of global ICT agreements. Yet, their current location on the development trajectory (and associated

internal protectionist pressures) makes it difficult for these emerging markets to reach internal consensus on the ideal global norms and principles for inflection point and post inflection point ICT market growth.

At present, a U.S. and OECD coalition probably has enough leverage to bring these critical emerging markets to the table and to build a global consensus on needed governance reforms. Since the developed markets still hold a dominant market share, emerging market firms still need access to them—they cannot meet their growth targets in isolation. As a result, the U.S. and other OECD markets can still leverage their market position to counter protectionist tendencies in the emerging markets, bring these key players on board and construct a new governance regime that will be beneficial for all.

However, the U.S. and the OECD face a narrowing window for utilizing this leverage. By 2025 the global market balance will shift toward the emerging markets, and it will become harder for the developed countries to play a leadership role and more difficult to reach a global consensus on the ICT policy reforms needed to unlock inflection point opportunities.

We could be sanguine about this if we were confident that all of the challenges in adapting governance to our opportunities would work themselves out through a business-as-usual process. Past public policies and technology breakthroughs have tilted the ICT architecture towards greater competition and technological diversity driven by market choices and modularity. This has promoted core public interest values, but we almost certainly are not at a stable equilibrium point for the inflection point.[15]

The current challenges arise from market access restrictions at and within borders for goods and services, obstacles to innovation and commerce arising from clashes in national approaches to public interest regulations, legacy regulations that do not respond to the changing realities of digital services and content and impediments to network innovation and development. They are made more severe by failure to achieve timely advances on our understanding of how to achieve core public interest values.

IV. The Way Forward—Three Fronts for Action to Advance Three Freedoms

Given the complex challenges and opportunities of ICT at the inflection point, hybrid approaches to reform are necessary if success is to be achieved. The challenge will be to match the principles and approaches to the problems at hand. We envision the creation of not one, but multiple, International Digital Economy

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15. Peter F. Cowhey and Jonathan D. Aronson with Donald Abelson, *Transforming Global Information and Communications* (Cambridge, MA: MIT Press, 2009).

Accords. To get things to work will require getting the big principles right and letting the norms, rules and their implementation flow from that. Institutional innovation, including nongovernmental institutions, will likely be necessary.

It is important to recognize the twin measuring sticks of success. On the one hand, no approach will be perfect—the question is whether it significantly improves on the alternative of not acting at all. Focusing on agreed norms may be a necessary exercise before reaching enforceable agreements, for example. On the other, we must not confuse process with substance: is the change being produced, or are the changes in combination so minor or slow, that it misses the opportunity? Hollow proclamations of new norms without real changes in a timely way will not get the job done. *As we use these twin measuring sticks, the IDEA Project urges that we look to measure our progress against three "freedoms:"*

- The freedom to innovate

- The freedom to enjoy privacy, security and property

- The freedom of information and association

What ICT governance policies are needed and how can this be implemented? Aspen IDEA believes that a variety of paths forward will be necessary. As a convenient simplification, keep in mind *three fronts for advancing the improvement of global governance:*

- **The Treaty Option:** binding inter-governmental agreements (e.g., governments enter into trade, communications, law enforcement, privacy, intellectual property or other enforceable multilateral agreements).

- **Global Norms:** nontreaty agreements that advance common expectations about desired outcomes and how to achieve them (these could be led by civil society, not just governments, e.g., companies agree to "codes of conduct," "good practices" or other norms to further agreed upon goals). Voluntary consensus standardization models have worked to promote ICT growth in the past two decades.

- **NGO Institutions:** civil society institutions that could flexibly and transparently provide alternatives to inter-governmental organizations (e.g., create private organizations to monitor and enforce the agreed upon norms).

This simplification of the fronts for advancement into three categories will save IDEA participants from an encyclopedic manual of international cooperative options. But they are consistent with findings from more detailed treatises. Many international institutions and international agreements are well established, includ-

ing the ITU and the WTO, and have regional bases (such as APEC, the OECD and CITEL). We have had ample opportunity to study what works, and why, in global governance. The results of this study serve as helpful reminders of what realistically can be achieved and add some nuance to the "three fronts" for action.

Most scholars acknowledge that "self-help" by nations and national policy discretion normally trumps efforts at rigid harmonization of national rules or supplanting national capabilities with ones under the control of global institutions. Analysts of successes in global governance put more emphasis on the questions of whether international agreements can achieve the following:

- *Set normative expectations and endorsement of some policy principles* (sometimes called "soft law" in the international legal community) even though these expectations and endorsements are not enforceable.

- *Improve information flows and lower the costs of decision making and bargaining among global stakeholders,* thereby increasing the likelihood that countries will either voluntarily agree on greater mutual adjustments of policies or find it simpler to negotiate more ambitious collective codes (e.g., the WTO nondiscrimination rules force agreements to be more ambitious than if countries could discriminate on market opening agreements).

- *Simplify the problems of cross-national coordination by, for example,*

  o *Agreements that particular national policy options are presumptively excluded* (while not harmonizing the overall policy mix, such as rules excluding certain options for national standards);

  o *Agreements to hold countries accountable for creating a particular policy capability* (as in the Basic Telecommunications Agreement requirement that there be an independent telecom regulator); and

  o *Accept mutual recognition of rules and decisions of other countries* as long as they adhere to a common policy framework (a major feature of EU coordination).

- *Reduce the risks and increase the rewards of cooperation by international monitoring, certification and enforcement arrangements* that can supplement (or legally channel) national self-help when there are disputes over meeting cooperative obligations.

Countries sometimes have *more ambitious agreements:*

- *Creation of binding codes* (such as WTO tariff agreements or, by a combination of custom and agreement, aspects of the law of the sea).

- *Creation or acceptance of a special global capability* that is not tidily beholden to a particular country, as in World Bank lending or (arguably) ICANN's role in domain names.

- *Creation of mutual recognition agreements* with regard to safety and compliance procedures (e.g., mutual recognition of national testing and certification of telecom equipment).

Two other features matter significantly in designing a strategy for global governance. One is familiar to everyone skilled in government decision making—*forum shopping matters* as much for global governance as for domestic choices. The other is the *shifting role of stakeholders in global governance.*

The choice of forum influences the "constitutional rules" underlying any decision process and policy package from a governance initiative. It changes the lead agency driving the process from national governments. And it carries a distinctive "reputation" among global stakeholders as policy choices move from Washington and Brussels to New Delhi or Brasilia. Often it is helpful to seek new negotiating arenas to dislodge traditional ideologies and prompt creative action. For example, in the mid-1990s the G-7 played an important role by endorsing a set of new principles of ICT governance. This proclamation might have remained at the level of rhetoric, but negotiators found a way to purse an inter-governmental level of binding accords; the WTO served this purpose during the 1990s GATS negotiations. The WTO venue circumscribed a less reform friendly ITU; moreover, the WTO's ability to create a novel form of quasi-harmonization of policy capabilities catalyzed even greater harmonization of telecom regulatory codes that went far beyond the requirements of the WTO accord. IDEA begins with the supposition that it will take progress in many forums, representing cooperative initiatives among USG agencies and their counterparts, to move forward. A key challenge for the IDEA participants is figuring out the right mix of forums in a new decision environment.

The last great wave of reform in the global governance of ICT markets occurred in the mid-1990s as telecom liberalization and the emergence of the Internet and the web propelled ICT into a high level of political and economic attention. Since then, two major changes have taken hold among global stakeholders in ICT governance.

The first shift is the changing mix of market influence in ICT, and thus of bargaining roles in governance. While the OECD region remains clearly predominant for now, change is happening. Leadership has to start with the current leaders (if

they do not agree, who will?) but needs a plan that can also serve the emerging centers of market influence. This will be an important topic for IDEA participants as they seek to reach a consensus among OECD participants.

The second change is the *rising role of civil society actors in global negotiations* regarding markets and civil society interests. This is symbolized by the growing formal role for these stakeholders in inter-governmental meetings. Furthermore they could have a significant role in implementing practical changes in governance. As the number of influential stakeholders rise, it is often harder to reach agreement on major changes in binding inter-governmental agreements. Given the diverse range of changes that are needed, this suggests that new normative codes and institutional capabilities created by consent and cooperation among civil society will be key parts of IDEA outcomes, as suggested by the two fronts of "norms" and "NGO institutions." Here are several examples:

- Industry codes involving aspects of privacy protection

- Mixed public-private authorities, organized by industry and monitored by governments, to assure higher common capabilities for global network security

- NGO-led institutions to monitor and report problems in regard to Internet freedom

There are ample precedents for these kinds of innovations featuring civil society leadership. For example, the Internet Engineering Task Force was a major process improvement over other standards setting approaches at the ITU at a key moment in the development of computer networking. Part of its flexibility and speed arose from its streamlined procedures and nongovernmental status while allowing participation (in their private capacities) of academic, government and corporate experts.

Whatever the preferred set of options for redesigning global governance, the truth is that major governance shifts typically begin in the largest domestic markets. The beginning of a core consensus (not perfect agreement) on domestic governance reform will bolster any campaign for global change. Until some core for business-government consensus is forged in the United States, international diplomatic and negotiating initiatives are unlikely to bear fruit.

Getting from where we are to where we want and need to be is always the hard part. Navigating the path to change always takes time, leadership and trust building in order to craft acceptable compromises, both within and among countries. The more players and the higher the stakes, the harder it is to reach agreement. Yet, the cost of waiting for crisis or collapse before implementing reform could be staggering.

Moreover, as national borders and market segments blur, it becomes harder to govern solely on a national basis. National policy choices have an inevitable international component. We seek common approaches that promote global coordination but also allow for significant variation in national policies.

The complexity of the task, and the high stakes, means that it will take commitment by the highest level of leadership in government and civil society to get through the many hurdles that reform will confront. One purpose of IDEA is to build a mutual understanding and trust that all of the key stakeholders will make the necessary effort. This process will begin in the United States. But, if successful, it will move to reaching the same level of commitment and consensus with the European Union's leadership. And then it will undertake the task of convincing leaders in the emerging markets that they, too, share an interest in acting with a sense of decisive urgency on seizing the opportunities for improving global society opened by this ICT inflection point.

Indeed, a free, widely accessible Internet stands at the heart of both global communication and global commerce. Internet freedom enables dialogue and direct diplomacy between people and civilizations, facilitating the exchange of ideas and culture while bolstering trade and economic growth.

Internet Freedom: A Background Paper

Shanthi Kalathil

October 2010

As use of the Internet has grown exponentially around the world, so too have concerns about its defining attribute as a free and open means of communication. Around the world, countries, companies and citizens are grappling with thorny issues of free expression, censorship and trust. With starkly different visions for the Internet developing, this era presents challenges—and also opportunities—for those who wish to ensure the Internet remains a backbone of liberty and economic growth.

U.S. officials have made clear their vision for the Internet's future. President Obama, in a speech before the UN General Assembly, said that the U.S. is committed to promoting new communication tools, "so that people are empowered to connect with one another and, in repressive societies, to do so with security. We will support a free and open Internet, so individuals have the information to make up their own minds." His words were reinforced by FCC Chairman Julius Genachowski: "It is essential that we preserve the open Internet and stand firmly behind the right of all people to connect with one another and to exchange ideas freely and without fear."[1]

Indeed, a free, widely accessible Internet stands at the heart of both global communication and global commerce. Internet freedom enables dialogue and direct diplomacy between people and civilizations, facilitating the exchange of ideas and culture while bolstering trade and economic growth. Conversely, censorship and other blockages stifle both expression and innovation. When arbitrary rules privilege some and not others, the investment climate suffers. Nor can access be expanded if end users have no trust in the network.

However, making reality live up to aspirations for Internet freedom can prove difficult. Numerous global initiatives—spearheaded by governments, private sector and civil society—are attempting to enshrine the norms, principles and standards that will ensure the Internet remains a public space for free expression. At the same time, other norms are fast arising—particularly those defined by authoritarian countries that wish to splinter the Internet into independently controlled fiefdoms. Even as Internet access has expanded around the world, many

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1. John Eggerton, "Genachowski, Obama on Same Open Net Page," *Broadcasting & Cable*, September 23, 2010.

governments are attempting to control, regulate and censor the Internet in all its forms: blogs, mobile communication, social media, etc. Such governments have devoted vast resources to shaping the Internet's development within their own borders, and they are now seeking to shape the Internet outside their borders as well. Indeed, Internet experts are worried that national governments of all stripes will increasingly seek to extend their regulatory authority over the global Internet, culminating in a balkanized Internet with limited interoperability.

Hence, the next few years present a distinct window of opportunity to elevate the principles of the free exchange of ideas, knowledge and commerce on the Internet. While U.S. leadership within this window is vital, a global effort is necessary to ensure that these norms become a standard part of the Internet's supporting architecture.

This background paper will describe different concepts of Internet freedom, discuss examples where conflicting interests come into play and explain some of the current international policy, private sector and civil society approaches toward the issue. It does not seek to endorse particular initiatives or policy solutions, but will frame several questions as a jumping-off point for further discussion.

Aspects of Internet Freedom

Internet freedom is perhaps more easy to define by what it is not than by what it is. Examples from around the world are usually cited to define what an attack on Internet freedom looks like (several of which are enumerated in the subsequent section). As a result, while many groups do make the effort to outline the components of Internet freedom, there is little common consensus on a precise normative definition. Rather than attempting such a definition here, this section will examine the various aspects of Internet freedom that are relevant for IDEA.

Because the Internet inherently generates knowledge and value from end users, rather than centralized gatekeepers, freedom of use and access is to some extent inherent in the design of the Internet. Accordingly, the policy framework already governing the Internet has developed in such a way to enhance competition, innovation, free expression and trust, with minimal government intervention.

Moreover, there is already a strong level of global consensus about the fundamentals underlying Internet freedom, in the shape of the core goals and principles to govern access and use of public networks that are crucial to the public interest. For instance, one strongly recognized principle implies freedom of access and freedom to publish. This includes freedom of access to anyone who wants to connect to the public Internet across all platforms (wired, wireless, satellite, etc.). Meanwhile, nondiscrimination principles have long recognized that public networks are an open conduit for content, whether opinions voiced in phone calls or

data transmitted on the network. In this sense, Internet freedom can be construed to be implicit within many of the principles carried over from older communication regimes.

That said, Internet freedom is perhaps most commonly situated within a political context. This aspect of Internet freedom generally emphasizes freedom of expression and human rights, in particular the idea that offline human rights and freedoms should also apply on the Internet. This concept is inherent in the pronouncements of various U.S. officials who have extolled the principle of Internet freedom over the last couple of years. Secretary of State Hillary Clinton summed up this perspective when she said "the Internet is a network that magnifies the power and potential of all others. And that's why we believe it's critical that its users are assured certain basic freedoms. Freedom of expression is first among them."[2]

Several groups are seeking consensus around this dimension of Internet freedom. The Internet Rights and Principles Coalition, a dynamic coalition spawned by the Internet Governance Forum, is seeking to apply the Universal Declaration of Human Rights to Internet governance and policy issues. Some civil society groups focus more narrowly on the concepts of free expressions and privacy as crucial to a free and open Internet, while others monitor the activities of governments worldwide on issues such as censorship, privacy and so on. All of these groups, to one extent or another, affirm that freely accessible information and communication, alongside the right to privacy, is crucial for the further development of open, democratic societies.

There is another aspect to Internet freedom that, while not as commonly discussed, is growing in relevance. This is the economic aspect of Internet freedom, which links the importance of free and open networks with economic growth, trade and favorable business environments. As Secretary Clinton pointed out in her Internet freedom speech of 2010, principles like information freedom are simultaneously connected to core U.S. values and good for business. Countries that censor news and information, she said, should recognize that from an economic standpoint, there is no distinction between censoring political speech and commercial speech.[3] Indeed, she and others have pointed out that countries that routinely filter and monitor content may see an adverse effect on investment, entrepreneurship and new product innovation.

According to this perspective, when governments pursue censorship in a way that favors domestic companies, it counters basic international trade principles such as nondiscrimination and the maintenance of a level playing field. Because of this discrimination, local companies gain a business advantage and domestic con-

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2. Hillary Clinton, "Remarks on Internet Freedom," (Speech, Newseum, Washington, D.C., January 10, 2010), http://www.state.gov/secretary/rm/2010/01/135519.htm.

3. Ibid.

sumers lose the ability to choose between providers. It is possible such concerns can be addressed through trade agreements, trade tools and trade diplomacy.[4]

Discussions of Internet freedom are not limited to the U.S. and the rest of the developed world. Regional meetings of the Internet Governance Forum in 2010, including the Asia Pacific Regional Internet Governance Forum, the Central Africa Internet Governance Forum, the East Africa Internet Governance Forum, the West Africa Internet Governance Forum, the European Dialogue on Internet Governance and the Latin America and Caribbean Internet Governance Forum, attributed tremendous importance to the concept of an open and free Internet. According to a report from these meetings, while regional variation exists, there is a large degree of international consensus over the so-called ideal form of the Internet—"namely, an open but secure Internet that is accessible and empowering for all."[5]

Examples of Threats to Internet Freedom

Most of the discussions on Internet freedom have centered on the actions by some governments to censor, filter or demand data on end users. Such actions, particularly in the context of an authoritarian political context, can not only have a chilling effect on free expression and commerce, but can put the livelihoods and even the lives of Internet users at risk.

Freedom House, which surveyed freedom on the Internet in 2007 and 2008, notes that several governments, particularly in authoritarian countries, are creating pervasive, sophisticated and multilayered systems of censorship that limit the type of information citizens can access, create or transmit via the Internet and mobile phones. Even in less restrictive environments, governments have devised more subtle methods to manipulate online discussion, while deploying vague security laws to harass and intimidate Internet users. Much of this results in circumscribed speech and activity on the Internet, as many in these circumstances resort to self-censorship to avoid crossing red lines. "On the whole, threats to Internet freedom are growing and have become more diverse, both in the array of countries that impose restrictions and in the range of methods employed," according to the Freedom House report.[6]

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4. Alan Davidson, Statement Before the Congressional-Executive Commission on China Hearing on "Google and Internet Control in China: A Nexus Between Human Rights and Trade?" (March 24, 2010), http://www.cecc.gov/pages/hearings/2010/20100324/davidsonTestimony.pdf.

5. Internet Rights and Principles Coalition, "Human Rights at the 2010 Regional IGFS: A Global Report, September 2010," http://internetrightsandprinciples.org/node/361.

6. Freedom House, "Freedom on the Net: A Global Assessment of Internet and Digital Media," (2009), http://www.freedomhouse.org/template.cfm?page=384&key=194&parent=19&report=79.

Governments have several ways of filtering and monitoring the Internet:

- Key-word list blocking: Any Internet packets featuring certain keywords are dropped.

- Domain name system poisoning: A user's request is intentionally misdirected to another IP address.

- IP blocking: All packets going to or from targeted IP addresses are blocked.

- Bandwidth throttling: Data volume is kept low to limit the amount of traffic that can be sent over the Internet.

- Traffic classification: More sophisticated than IP blocking, this halts any file sent through a certain type of protocol, such as FTP.

- Shallow packet inspection: Packets are blocked based on their content, making broad generalities about traffic based on the packet header.

- Packet fingerprinting: More refined than shallow packet inspection, fingerprinting looks not only at packet header but at length, frequency of transmission, and other characteristics.

- Deep packet inspection: The most refined method for blocking Internet traffic, it examines not only a packet's header but its payload, giving the ability to filter packets at a surgical level.[7]

A few country examples illustrate more vividly the implications of these filtering and monitoring techniques. Iran, for instance, has approximately 23 million Internet users, while its filtering and monitoring system is one of the most extensive in the world. The government also restricts access by limiting the speed of Internet access that ISPs can provide to households and public access sites, making it one of the only countries in the world to do so. This makes downloading multimedia content extremely difficult and blocks off entire portions of the global Internet to the Iranian population.[8]

Iranian bloggers are required to obtain licenses, and content is subject to approval by government ministries. Despite this, the Iranian blogosphere is particularly vibrant. Real-time microblogging, such as through Twitter, has been an important mode of political communication both within Iran and between Iran

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7. Casey L. Addis and Thomas Lump, "U.S. Initiatives to Promote Global Internet Freedom: Issues, Policy, and Technology" (Washington, D.C.: Congressional Research Service, 2010).

8. Ibid.

and the outside world (although some have questioned its ultimate effectiveness in spurring political change). After disputed 2009 elections in Iran, Internet activists and bloggers were detained at an increasing rate, leading human rights monitors outside the country to suspect that the country's Internet monitoring system was even more sophisticated than previously supposed.[9]

China is another country that has frequently been highlighted in discussions about threats to Internet freedom. With the world's largest number of Internet users (roughly 330 million), China's actions online can reverberate globally. The government controls Internet content and expression through a number of means, including blocking, filtering, registering of websites, crackdowns on Internet service providers and encouragement of self-censorship. It also proactively uses the Internet to reinforce state goals and has famously employed thousands to express pro-government views online.

The interaction between U.S. technology companies and China's Internet policies has undergone close scrutiny in recent years. Some human rights activists and U.S. policymakers say that U.S. technology companies have sold services and technologies to China that help the government halt free speech online and identify Internet users. The companies, in turn, have responded that they are abiding by the laws of the countries in which they operate and that they do not actively cooperate or collaborate with the Chinese government in aiding censorship and monitoring.[10]

The recent experiences of Google in China illustrate how Internet freedom issues exist within a complex juncture between governments, companies and civil society. Google launched its Chinese search engine, Google.cn, in January 2006; it became the second most popular search engine in China, behind local search engine Baidu. Google.cn's search results were censored, in compliance with Chinese government requests; Baidu, as far as evidence can determine, has always complied with Chinese government requests. In December 2009, Google detected a highly sophisticated attack, originating from China, on its corporate infrastructure. After a subsequent investigation showed that several other companies were also targeted, and that malware had also opened up email users (and in particular known democracy activists) to surveillance by third parties, Google announced it would stop censoring results in China and redirect users of its Google.cn search engine to the uncensored Hong Kong version.

In this particular instance, there are few clear winners. One that seems to emerge, however, is Chinese search engine Baidu, which along with nearly all other Chinese companies is assumed to routinely comply with Chinese government monitoring and surveillance demands. Many Chinese companies are not

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9. Ibid.

10. Ibid.

transparent about how often and in what manner they shape Internet traffic, although many openly say that they cooperate willingly with the Chinese government on these issues. Unlike international companies, which are subject to various forms of public pressure, domestic Chinese companies are largely absent this type of scrutiny, and can benefit when large international players run afoul of government policies. Because of this and other examples, some civil society and industry groups are pushing for a trade-related approach to Internet freedom.

Not all such examples occur in authoritarian countries. India, for instance, joined such countries as Saudi Arabia and the U.A.E. in demanding that Research In Motion (RIM), creator of the BlackBerry, provide the government access to encrypted information sent over its devices, in what the Indian government called an effort to combat terrorism. India has threatened to ban the use of BlackBerry devices unless RIM agrees to grant the government greater access. India is also seeking greater access to encrypted data sent over other services like Skype and Gmail, as well as virtual private networks. Some business analysts and domestic companies say such a development could seriously dampen the environment for foreign investors, who might think twice about investing in India if data is perceived to be at risk.[11] The Indian government, however, maintains that pursuing national security through such endeavors is both legitimate and necessary. In this, it is joined by a number of other national governments. Balancing the competing demands of security and openness is a theme that runs throughout many discussions of Internet freedom.

Western governments have also held technology companies responsible for content uploaded by users. In February of this year [2010], an Italian court found three current and former Google executives guilty of privacy violations after a group of Italian students uploaded a video of themselves bullying a classmate. Google plans to appeal the decision.

Many of these examples raise the issue of intermediary liability, in which governments or other litigants hold telecom and technology companies (intermediaries) liable for unlawful or otherwise harmful content created by users of their services. In some countries, such as the U.S., intermediaries are generally protected from liability for the actions of third parties. However, in many countries around the world, and in particular those countries that tend to censor/monitor the Internet, intermediaries are not protected from such liability (witness the Italy example mentioned above). This has a chilling effect on Internet freedom, as intermediaries tend to err on the side of caution by discouraging the free flow of information. Because of this, civil liberties NGOs and other freedom of expression-related orga-

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11. S. Ramadorai, "Don't Disconnect India," *Hindustan Times*, September 21, 2010, http://www.hindustantimes.com/News-Feed/Columns/Don-t-disconnect-India/Article1-603075.aspx.

nizations tend to side with the companies in lobbying for enhanced intermediary protection. Some argue that enhanced intermediary protection globally could help support Internet freedom.[12]

One last example from China shows how a concerted effort by the U.S. government, civil society (both within and outside China) and industry can be effective when addressing challenges to Internet freedom. In 2009 the Chinese Ministry of Industry and Information Technology (MIIT) mandated that later that year all computers sold in China would need to be pre-installed with ostensible child-protection software, called Green Dam-Youth Escort. Studies of Green Dam showed that the software also censored political and religious content and logged user activity. Because the software also had programming flaws that increased user vulnerability to attack and violated the intellectual property rights of a U.S. company's product, it was also easily opposed by U.S. industry. Chinese civil society, too, opposed the software; not only was Green Dam ridiculed for being a clumsy attempt at suppressing free speech and consumer choice, but it was held up to be an example of crony capitalism because the software company's founders were perceived to have relied on government ties for their success. In the face of this united opposition, the MIIT backed down.[13]

The Green Dam example demonstrates that concerted opposition can thwart censorship and surveillance plans by authoritarian governments. It is also something of a special case, as it is rare for this particular blend of circumstances to occur. Nonetheless, it provides an interesting illustration of how different stakeholders with differing rationales for action can come together to successfully uphold Internet freedom.

Current Initiatives

Because there are so many current initiatives addressing various aspects of Internet freedom, the following summary represents a mere sampling of the more prominent activities. They are divided up below into four broad categories: intergovernmental, U.S. government, civil society and private sector. Despite the rough categorization, many initiatives naturally span more than one of these categories.

Intergovernmental Initiatives

Intergovernmental institutions have been active in both Internet governance and the more specific issue of Internet freedom. In most cases, however, there

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12. Center for Democracy and Technology, "Intermediary Liability: Protecting Internet Platforms for Expression and Innovation," April 2010, http://www.cdt.org/files/pdfs/CDT-Intermediary%20Liability (2010).pdf.

13. Rebecca MacKinnon, "After the Green Dam Victory," *CSIS Freeman Report*, June/July 2009, http://csis.org/files/publication/fr09n0607.pdf.

has been more action on defining and debating norms and principles, and less on concrete initiatives.

There are several UN-led and UN-related initiatives on Internet freedom. The UN Special Rapporteur for Human Rights, Frank La Rue, is preparing a report to present to the UN Human Rights Council on Internet freedom. The consultative process has been supported by the Swedish and French governments, and it is getting some buy-in from countries around the world, including those in the Middle East and Latin America. If accepted, its sponsors hope it could lead to a UN resolution.

Perhaps the most prominent UN offshoot is the Internet Governance Forum (IGF), a multistakeholder forum for policy dialogue on issues of Internet governance. The establishment of the IGF was formally announced by the United Nations Secretary-General in July 2006, and it has held annual meetings (along with related activities). The IGF addresses public policy issues related to Internet governance, facilitates discourse between organizations engaged in Internet governance, and helps promulgate best practices and builds stakeholder capacity, particularly those from developing countries. At its most recent meeting in Vilnius in September 2010, the IGF addressed several issues relating to Internet freedom.

One of the "dynamic coalitions" spawned by the IGF is the Internet Rights and Principles Dynamic Coalition, formed by civil society groups and other institutions that want to establish an Internet governance regime founded on human rights. The Internet Rights and Principles group is more of a distributed, collective effort than an organized movement, and its main contribution is to flesh out a conceptual and practical framework for work on this issue. Another related group, the Dynamic Coalition on Freedom of Expression and Freedom of the Media, has similar goals but takes a more narrow focus.

Regional bodies have also undertaken some effort in this area. The Council of Europe created an Ad Hoc Committee on E-Democracy to investigate the use of ICT to strengthen democratic institutions and the democratic process. The EU and Council of Europe also presented a proposed "global Internet treaty" at the IGF meeting in September 2010, outlining 12 principles of Internet governance, including upholding openness, interoperability and the rights to freedom of expression and association. According to its drafters, it is based on the 1967 Space Treaty, which decreed that space exploration should be conducted for the good of all nations. Analysts deem it a response to increasing pressure from national governments to regulate and balkanize the Internet.[14]

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14. Mark Ballard, "Europe Calls for Global Internet Treaty," ComputerWeekly.com, September 17, 2010, http://www.computerweekly.com/Articles/2010/09/17/242901/Europe-calls-for-global-internet-treaty.htm.

U.S. Government Initiatives

Over the last several the years various initiatives have emerged from the executive and legislative branches of the U.S. Government. These initiatives appear to be in a process of ramping up.

Secretary of State Hillary Clinton's January 2010 speech on Internet freedom set the stage for renewed vigor within the State Department on Internet freedom issues. The State Department's Netfreedom Task Force (formerly the Global Internet Freedom Task Force), chaired by Undersecretary Bob Hormats and Undersecretary Maria Otero, serves as a policy coordinating body within the State Department and includes participation from regional bureaus, public affairs and the Office of the Legal Adviser. The task force operates according to three core principles: advancing Internet freedom through expanded access, monitoring Internet freedom and responding to threats to Internet freedom. The State Department also funds various Internet freedom activities through the Bureau of Democracy, Human Rights and Labor and the United States Agency for International Development.

The Commerce Department has convened an Internet Policy Task Force comprised of staff from the National Telecommunications and Information Administration, the International Trade Administration, the National Institute of Standards and Technology and the Patent and Trademark Office. The Task Force is now seeking public comment on the extent to which governments may be restricting information and inhibiting innovation and economic growth for U.S. companies. Commerce Secretary Gary Locke has framed the issue of Internet freedom in trade terms, noting that preserving the free flow of information online supports the President's National Export Initiative and that one goal is to remove barriers that prevent U.S. companies from getting free and fair access to foreign markets. After reviewing comments, the Task Force will submit a report that will contribute to U.S. policy on these issues.

The U.S. Trade Representative (USTR) has been interacting with companies and civil society organizations on the issue of free trade and Internet freedom. Some civil society organizations would like to see the USTR make provisions to protect freedom of expression online in future U.S. trade agreements, similar to labor protections, although it is unclear to what extent this idea has gained traction. One bill introduced in Congress in 2010, the One Global Internet Act, would first require the federal government to identify "priority" Internet concerns overseas and then require the USTR to begin an investigation under the 1974 Trade Act, which authorizes sanctions and retaliatory actions. Some trade scholars, however, are skeptical about the effectiveness of this approach.

In addition to this act, the most notable piece of legislation to emerge from the U.S. Congress on this issue is HR 2271 [111th], the Global Online Freedom Act, introduced by Representative Chris Smith (R-NJ) in 2007. This legislation would create an Office of Global Internet Freedom at the State Department and would also mandate that U.S. Internet companies take action to combat censorship and protect privacy or be subject to criminal or civil prosecution. The legislation has been supported by some in the House (including then Minority Leader Nancy Pelosi, (D-CA)) but opposed by telecommunications and Internet companies, the U.S. Department of Justice and some civil liberties group, who argue that some of the provisions of the bill are unworkable and likely counterproductive. It has not come to a vote.

Civil Society

Many civil society groups worldwide have engaged the subject of Internet freedom, with most of them addressing the issue within the framework of human rights, freedom of expression and privacy. The major human rights organizations, such as Amnesty International and Human Rights Watch, have all worked on Internet freedom in some capacity, while specialized organizations, such as Reporters Without Borders, the Committee to Protect Journalists, the World Press Freedom Committee, Freedom House and others have dedicated particular initiatives to Internet freedom.

One initiative that has done much to clarify the state of Internet freedom around the world is the Open Net Initiative, a collaborative partnership between the Citizen Lab at the Munk Centre for International Studies at the University of Toronto, the Berkman Center for Internet and Society at Harvard University and the SecDev Group (Ottawa). It aims to investigate, expose and analyze Internet filtering and surveillance in order to inform better public policy and advocacy work. The Open Net Initiative has done much to clarify the scope and scale of global Internet filtering.

In recent years, the NGO community has begun to push beyond research and advocacy on Internet freedom to engage concretely with the private sector and policymakers. For instance, the Global Network Initiative (GNI) was formed to provide practical solutions to complex issues of Internet freedom, and counts among its members companies, civil society organizations (including human rights and press freedom groups), investors and academics. Created by a number of key companies and human rights organizations (including Google, Yahoo and Microsoft as its founding members), the GNI describes as its core features a foundation upon international human rights standards, a multistakeholder approach and global applicability. The GNI advocates thorough human rights due diligence by technology and telecom companies, as well as independent assessment of individual companies' human rights impacts.

In fact, many human rights organizations have called for transparency in company-government relations, the implementation of human rights assessments by technology and telecommunications companies before entering new markets, and third party independent assessment of the human rights impact of companies' activities. The last issue in particular has met with some resistance by companies, who argue that a strictly voluntary approach is less burdensome and raises fewer legal concerns about confidentiality. The GNI maintains that the independent assessment process is crucial to credibility and that many legal concerns (including confidentiality requirements, trade secrets, attorney-client privilege and legal constraints) have been addressed in the design of the assessment process. Perhaps due to its middle-of-the-road approach, the GNI has failed to attract some human rights groups (who deem it too "soft") and many technology companies (who believe its approach too binding and/or intrusive).

Private Sector

Many in the private sector have argued that it is easiest for companies to address the Internet freedom issue from a trade perspective. According to the Computer and Communications Industry Association, censorship, or "information discrimination" as it calls it, can be considered a classic "nontariff trade barrier" that is often targeted for elimination when opening up foreign markets to U.S. goods. When governments force U.S. companies to filter content, the argument goes, this creates a barrier to market entry that otherwise would not exist. It may also constitute an unfair "rule of origin" by nontransparently filtering out certain U.S. or other domains.[15]

This trade-centric argument has also been supported by some within civil society. The First Amendment Coalition also supports using trade rules to enforce Internet freedom, arguing that, for instance, nonlocally based websites suffer performance degradation within China, forcing international companies to locate physically within the country—essentially making China's firewall a trade barrier. The First Amendment Coalition has submitted a report to the USTR, and consultations regarding the effectiveness of bringing a WTO case seem to be ongoing. The USTR has said in the past that trying to resolve the issue through bilateral forums such as the U.S.-China Joint Commission on Commerce and Trade (JCCT) might be preferable to what could be a multiyear battle in the WTO.

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15. Computer and Communications Industry Association, "Internet Freedom: How National Policies Have Failed to Protect It And What Can Be Done Now To Build It," http://www.ccianet.org/CCIA/files/ccLibrary-Files/Filename/000000000315/InternetFreedomwh.pdf.

Some individual companies have also committed, in various forms and to varying degrees, to increased human rights-related activity and transparency with respect to government requests for censorship. Yahoo, which suffered negative publicity when it complied with a Chinese government request to turn over identifying information about dissidents, has since led the field in Internet freedom-related corporate initiatives. Yahoo conducts human rights impact assessments in order to understand the human rights implications of their business decisions, especially when entering a new market or launching a new product. The company has worked with the Laogai Research Foundation to create the Yahoo Human Rights Fund to provide humanitarian and legal support to political dissidents imprisoned for expressing views online. Yahoo has also created a Business and Human Rights Program to coordinate and lead the company's efforts to protect and promote free expression and privacy.

Google has also sought to implement various transparency initiatives relating to government censorship of its services. The company now provides an interactive map that displays the number of government inquiries for information about users and requests for Google to take down or censor content. Its traffic graphs also provide information about traffic to Google services around the world, including historic traffic patterns for a given country/region and service. Google says that by illustrating outages, the traffic tool helps display disruptions in the free flow of information.

Going Forward: Questions for Discussion

Many agree broadly that governments, companies and civil society must work together to devise and implement effective approaches to advance Internet freedom. However, for each initiative proposed above, there is ongoing debate about the best way forward. The following questions are designed to generate further discussion about practical solutions to this complex issue.

- What are the major ways in which censorship can be treated as a trade issue? What are the advantages and disadvantages to going through the WTO to address Internet freedom issues? What other bodies and trade organizations might be effective on a global scale?

- What are the ways in which the economic impacts of restricted information flow over the Internet can be quantified, and how might these types of data be used to advance Internet freedom globally?

- How can companies, governments and civil society best address the issue of intermediary liability? How should they respond to competing pressures from users, national governments, local laws, and international norms?

- Is it feasible to rely solely on individual, self-generated corporate codes of conduct to protect Internet freedom, as many technology companies would prefer? Or would self-generated codes without third-party assessment prove ineffective and a continuation of the status quo, as many civil liberties and human rights NGOs argue? If self-generated codes of conduct are employed, how can they be made effective without independent oversight, and how can they represent progress from the current situation? Is there a hybrid model?

- What are the models that might apply to a codified approach toward enhancing Internet freedom? Some have suggested looking at the Foreign Corrupt Practices Act (FCPA), which subjects companies to possible penalties if they do not have corruption-prevention systems in place, as one model. What might be the benefits and drawbacks of this model or others?

- What are the pros and cons of national and/or intergovernmental regulation/legislation to protect freedom of expression and privacy on the Internet? What are the benchmarks that can help determine when a regulatory response is appropriate and when it overreaches?

- Some have argued that the Internet should be subject to an international governance regime similar to those governing other global commons. What might be the pros and cons of such a regime?

- To date, technology companies have essentially addressed government censorship and monitoring demands on a case-by-case basis, leaving individual companies to face complex Internet freedom issues on their own. What are the advantages and drawbacks to this piecemeal approach? What might a global, multistakeholder approach to Internet freedom look like?

- Looking ahead, the cloud computing environment, with its emphasis on central computer data storage rather than end-user terminals, raises additional concerns about government censorship and privacy issues, particularly if servers hosting cloud applications are hosted in authoritarian regimes. What types of policy frameworks will address data privacy and security in the cloud? How might local restrictions on the flow of information affect cloud computing?

"If we don't want to hinder technological development, we have to encourage trust in emerging technologies. Technology is designed to serve people. It must respect citizens' rights and freedoms. It must contribute to economic and social progress on both sides of the Atlantic, trade expansion and citizens' well-being."

- Viviane Reding

Privacy Standards in the Digital Economy: Enhancing Trust and Legal Certainty in Transatlantic Relations

Remarks by Viviane Reding
Vice-President of the European Commission, EU Justice Commissioner

Aspen Institute IDEA Project Plenary
Brussels, 23 March 2011

Ladies and Gentlemen:

First of all, let me thank Ambassador Kennard and the Aspen Institute for inviting me to take part in this event. I am glad to have the opportunity to share with you my views on privacy in the digital economy and on how to enhance consumers' trust and legal certainty for businesses in transatlantic relations.

New information and communication technologies have radically changed the way we interact and communicate. Social networks are perhaps the most obvious, but not the only, example of this global phenomenon. Let's take cloud computing: Storing information in the cloud holds much economic promise and many consumer benefits. Cloud computing is becoming one of the backbones of our digital future.

However, new technologies also raise challenges for policy makers. A cloud without robust data protection rules is not the sort of cloud we need. Its full potential can only be realised if it is seen as a trusted way of storing data. Web users should have control over their data. They have the right to know who is in charge of protecting their photos, agendas and emails that are kept in remote servers. They should know their rights to privacy.

Until recently there was a common belief that our approaches on privacy differ so much that it would be difficult to work together. This can no longer be argued. Just last week the White House took a decisive step closer to this side of the pond by announcing on March 16th its intention to work with Congress to produce "a privacy bill of rights." This development—which is much welcomed in Europe—shows that we have much in common. Convergence is springing up.

Synergies became possible. Removing protection gaps between our systems will be good for both U.S. and EU citizens and businesses. Strengthening trust in

information technologies and improving legal certainty online will be essential to securing the Internet's expansion.

In the EU, we have a strong and successful data protection law dating back to 1995. The law's values and rights remain valid 16 years later. Nevertheless, what is needed now is to make the rules future-proof, taking into account the exponential growth of the Internet and the challenges of globalised data flows.

If we don't want to hinder technological development, we have to encourage trust in emerging technologies. Technology is designed to serve people. It must respect citizens' rights and freedoms. It must contribute to economic and social progress on both sides of the Atlantic, trade expansion and citizens' well-being.

New privacy rules in Europe will need to be business-friendly. We want to cut those administrative obligations and requirements that are unnecessary and ineffective. New rules should be clearer, simpler and applied in uniform ways. We should make businesses more responsible for protecting consumers' privacy online and ensure citizens' rights.

It is lucky that at the same time when we modernize our rules, the U.S. is introducing a legal basis for data protection. This is the time to build on this momentum. If we succeed, our cooperation has a good chance to be the first step towards the development and promotion of international legal standards. It would set a framework for a high level of protection and ease international data flows, reducing legal uncertainty linked with data transfers.

As Vice-President of the European Commission and EU Justice Commissioner, I am committed to laying the foundation for a robust transatlantic partnership in the field of justice, in particular privacy and data protection.

The reason for more convergence and cooperation is clear. We also face common threats. These threats—terrorism and serious crime—menace all of us, no matter where we are. For criminals and terrorists there are no frontiers, no oceans. That is why Europe is ready to negotiate a bilateral EU-U.S. agreement that would set standards for the protection of personal data when it is transferred across the Atlantic for the purposes of police and judicial cooperation in criminal matters.

Such an agreement would be the first important step in bridging the existing differences on the application of privacy rights. It would make it then easier to achieve a common approach on protecting personal information online in the business world.

Ladies and gentlemen, let me conclude by saying that the protection of personal data is a basic value for Europeans. Our Charter of Fundamental Rights states clearly that citizens have the right to the protection of their data. This right is particularly important in today's world—a world in which rapid technological

changes allow people to share personal information publicly and globally on an unprecedented scale.

Our cooperation should allow the continued expansion of the Internet as a common medium, bringing benefits to businesses and citizens. It needs to be robust and successful because it is built upon shared values such as the rule of law, democracy, freedom, solidarity, economic development and stability.

Let's give this win-win relationship a supplementary dimension. Let's show to the world that together we can ensure a high level of protection, facilitate international data flows and reduce legal uncertainties for citizens and companies on both sides of the Atlantic. Let's show to our citizens that working together will make Europe and the U.S. global standard setters and the world compass for values in action.

"I am very much in favour of exploring possible cooperation models between the public and the private sectors, or in general among different stakeholders, if this helps us to achieve a more (cloud-active) environment."

- Neelie Kroes

The Role of Public Authorities in Cloud Computing

Remarks by Neelie Kroes

Vice-President of the European Commission and EU Commissioner
for the Digital Agenda

Aspen Institute IDEA Project Plenary
Brussels, 24 March 2011

Ladies and Gentlemen:

Cloud computing is an issue that I consider of great importance for Europe's growth. Therefore, I would like to thank you for the opportunity to share my thoughts on this subject.

I read with great interest the papers produced so far in the context of the IDEA project. I share the overall assessment that cloud computing represents an opportunity for additional economic growth and societal well-being. I also share the view that many challenges posed by cloud computing are well representative of the challenges that the Internet itself presents us with.

Because of this, if we manage to find an effective way to collectively address these "cloud challenges," we will have gone a very long way in ensuring the Internet can continue to be a generator of innovation, growth and freedom; and at the same time, we will have learned how to better manage this wonderful global infrastructure in a way that provides for security and safety as well as respect for everyone's rights and interests.

So, you can see we agree on the basics. This is good news.

The European Commission already has various initiatives in the area of cloud computing, for example as part of our research funding programmes. ENISA, our European Network and Information Security Agency, has recently published two reports on the security implications of cloud computing that I would recommend all of you to read.

But there is even better news.

As foreseen in the Digital Agenda for Europe, I have started work on a European Cloud Computing Strategy.

I want to make Europe not just "cloud-friendly" but "cloud-active."

On the basic condition, strong fixed and mobile communication networks, we have already come a long way. And I am busy improving these further: For example, I have recently assembled the CEOs of key companies in the areas of electronic networks, content and equipment to study and propose ways to improve the private sector's confidence which it needs to invest in faster and better networks and services. I am optimistic that this process will lead to some tangible results.

But the cloud computing strategy I am working on goes farther. It is based on the following three broad areas, which I will briefly recall for you:

First, the legal framework. This concerns for example data protection and privacy, clear rules for the allocation of jurisdiction, responsibility and liability, and consumer protection. The cloud must be a place where everyone's rights are duly respected and enforced. The international dimension of these aspects is evident.

Second, technical and commercial fundamentals. We want to extend our research support and focus on critical issues such as security and availability of cloud services. As a mediator, the Commission can also play a stronger role in the technical standardisation of Application Programming Interfaces and data formats to enhance interoperability and competition between cloud providers, as well as in the development of template contracts and service level agreements.

Third, the market. We already support pilot projects aiming at cloud deployment, these will be scaled up. Moreover, to leverage the power of public procurement, as the U.S. is now doing with its own cloud strategy, we will engage with our public sector partners on Member State and regional levels to work on common approaches to cloud computing.

We are working very hard to produce a document combining analysis and a clear plan of actions. As this work is ongoing—the next step will be online consultations from April and a consultative event on 23 May in Brussels—I am not able to share more details with you today. But I can tell you that I clearly see commonalities with some of the current thinking in the IDEA project.

For example: the importance of high levels of security and privacy; the necessity to engage with different stakeholders to bring the process forward; the need to have clear rules in place to decide jurisdictional questions and allocate liability.

So, as I said and as you can see, I bring you lots of good news.

However, I cannot help but get the impression that the IDEA vision on cloud computing, as it currently stands, considers governments and public authorities too much as part of the problem, rather than as part of the solution.

I think I know where this tendency is coming from: The Internet is a global phenomenon and there are certainly governments around the world which do not

share many of the values you and I share. I just doubt that the answer to that is to stop looking for action from those governments who share our values.

I do not believe in public intervention just for the sake of it. It is a general rule in the Commission to always ask whether our intervention is really necessary in order to achieve a particular goal. And I can assure you that I ask this question to myself and to my services very forcefully, every time a new initiative is on the table, including for our cloud computing strategy.

But public authorities have a role to play; they have responsibilities towards citizens; and they also have the right to intervene, and even regulate, when they feel that the public interest is at stake.

I am a pragmatic person and I like pragmatic solutions. This is why I am very much in favour of exploring possible cooperation models between the public and the private sectors, or in general among different stakeholders, if this helps us to achieve a more "cloud-active" environment.

However, I am not totally convinced that voluntary approaches, codes of conduct, or private monitoring and enforcement bodies, are the complete solution to some of the issues highlighted in the IDEA papers without having the real teeth and public policy legitimacy that public authorities can provide.

Freedom of expression; the protection of privacy and personal data; net neutrality and the preservation of an open Internet; these and other issues are fundamentally public policy issues. Who will be liable if something goes wrong in the cloud and data is lost or compromised? Which rules and which jurisdiction will apply? These are not questions that "codes of conduct" on their own can answer in a satisfactory way.

The private sector, civil society, the technical and academic communities can and should all play a role in asking the right questions, providing "out of the box" advice and possibly participating in the decision-making process. But keeping public authorities out of the picture will not help.

To conclude, I would like to thank the Aspen Institute and all of you who participate in the IDEA project, for the opportunity to think and talk about cloud computing and, more in general, about the principles that should guide our approach to Internet policies.

This is a discussion we need to have. In fact, it is a discussion people are already having in a variety of public and private fora, including at the OECD. It might help if we tried, as much as possible, to avoid duplication. It would be even better to see a concrete effort to converge towards a common platform for discussions. We should all make an effort to be as inclusive as possible and, for example, not

forget that we need to talk to cloud customers too, not only to cloud vendors—and not only because there are many more of those. We could soon discover that the questions posed by cloud customers and by public authorities are not that different, in the end.

We have a lot to do and not much time to do it. We must not be afraid of being creative and audacious, as the IDEA vision certainly is.

But let us all keep in mind that moving ahead too quickly and without due consideration for the sensitivities, interests and constraints of all the involved parties can be ultimately ineffective.

They say "it takes two to tango."

I am absolutely convinced that Europe is ready, willing and keen to dance in the cloud. But if we dance together with different tempos and different moves, if we dance different dances, the end result is not going to be very good for the feet of the dancers and it will certainly not impress the on-lookers who are waiting to step onto the dance floor.

This would be most unfortunate, not least because in this area we need global solutions. Companies, civil society, the technical community *and* public authorities in the EU, in the U.S. and elsewhere should show common leadership—and good dancing skills. I am happy to say that I am already having very good conversations with the White House on this matter.

Ladies and gentlemen, I do not know if the program for today includes dancing; but I certainly wish you a good and fruitful day of discussions.

Thank you very much.

> **"A thriving global cloud computing industry, built on ubiquitous broadband, can be as beneficial for economic growth in the 21st century as electricity was in the 20th."**
>
> *- Julius Genachowski*

The Cloud: Unleashing Global Opportunities

Remarks by FCC Chairman Julius Genachowski

Aspen IDEA Project
Brussels
March 24, 2011

It is a pleasure to be here with all of you—my colleagues in the American government, our counterparts from the EU and Canada, and this excellent group from the private sector and civil society.

Thank you to the Aspen Institute; to my distinguished predecessor, Ambassador Bill Kennard, for hosting this event and for driving international cooperation; and to another distinguished predecessor, Reed Hundt, for his vision and leadership.

We're here this morning because of our shared commitment to promoting and protecting the global free flow of information.

As U.S. Secretary of State Hillary Clinton pointed out in her speech last year on Internet freedom, "In many respects, information has never been so free."

Or so fast. The time it takes to send a message across the Atlantic has fallen from two weeks in the early 19th century to less than two-tenths of a second in the early 21st.

This revolution in the fast and free flow of information is having a profound effect on world history, as we see in the Middle East and North Africa. And I believe a positive effect—as people around the world are empowered with information, the ability to connect and the opportunity to have a voice in their own governance.

But it will no doubt take vigilance to preserve this freedom.

And while there remains uncertainty regarding what the weeks and months ahead will hold for the Middle East and North Africa, there's at least one thing we can be sure of:

When autocracies want to shut down a common communications medium in order to preserve their power, then that common medium is important; and so it is very important that we debate and agree upon principles for ensuring it remains free and open.

That is one important reason we're here today.

But not the only one. We're here not only because free flows of information promote democracy and human rights. We're also here because free flows of information promote economic growth and prosperity.

When the government shut down the Internet and mobile service in Egypt on January 27, many people asked: How were they able to do that, and what does it mean that they could do that?

Important questions.

Fewer people asked another important question: How did Egypt come to have an Internet and mobile service worth shutting down in the first place?

The answer is that a decade ago some in Egypt saw the *economic* benefits of deploying open communications networks allowing information exchange. That followed a global embrace of basic principles supporting the opening of communications markets, basic principles which developed in meetings like this one involving some of the same leaders and thinkers here today—and which were ultimately codified in the 1997 World Trade Organization Agreement on Basic Telecommunications.

Since then, economic history has shown that free flows of information and data can enable unprecedented economic opportunity productivity gains, contributions to GDP and job creation.

And as Minister Bildt pointed out this morning, healthy, job-creating economies will be key to the long-term success of Internet-facilitated freedom movements in developing countries.

The advent of cloud computing, with its ability to enable collaboration in ways no other technology has before, can *multiply* the benefits of a free and open Internet.

Consider that in the United States, the number of ads for full-time IT jobs focused on cloud computing grew more than 300 percent last year.

And the benefits of cloud computing and a widely available Internet extend as well to health care, education and energy, improving quality of life while also generating new markets and new businesses in each of those categories.

This can be true all over the world. Cloud computing is already a $68 billion global industry, and worldwide cloud adoption is expanding at roughly 17 percent per year, according to Gartner. European companies like Flexiant and Mvine in the U.K. and GreenQloud in Iceland are offering innovative cloud computing solutions.

The opportunities and benefits of cloud computing are not limited by geography.

Nor are the challenges to unleashing its opportunities.

Information is a form of capital. As barriers to accessing funding prevent entrepreneurs, wherever they are, from starting the next great cloud computing company, barriers to accessing information prevent innovators, wherever they are, from growing cloud computing companies, improving productivity, growing GDP and creating new industries, jobs and opportunity.

How do we begin to address these barriers? One way is to identify the inputs that make communications networks with freely flowing information possible.

As a start, I'd point to five key inputs:

- Robust backbone and middle-mile networks that can handle heavy data backhaul loads;

- Last-mile broadband—wired or wireless—that reaches every citizen;

- Spectrum for mobile broadband, so people can access the cloud wherever they are;

- Interconnection among networks; and

- Public policies that don't inhibit—and indeed facilitate—data flows across international borders.

Unfortunately, we face common challenges worldwide in the provision of each of those inputs.

First, we have **a global broadband *availability* gap.** In the U.S., about 20 million Americans live in areas where they simply can't access broadband. Virtually every country has deployment challenges, and in many countries the challenges are dramatic. These challenges extend to both last-mile and middle-mile networks.

And somewhat ironically, although wireless presents new solutions for last-mile connectivity, it exacerbates middle-mile challenges, as much more fiber backhaul will be needed to accommodate growing mobile traffic.

Second, we have **a global broadband *adoption* gap**. About one-third of Americans don't subscribe to broadband today, either because they can't afford it, they lack the skills to use it effectively or they don't see its relevance. In some other developed countries, the comparable figure is over two-thirds. The EU's Digital Agenda focuses on these and related challenges, as we in the U.S. have done with the FCC's National Broadband Plan.

Third, we face **a looming global spectrum crunch**. In the U.S., multiple experts expect that by 2014, demand for mobile broadband and the spectrum to fuel it will

be 35 times greater than last year. Globally, Cisco has projected a nearly 60-fold increase in demand for spectrum between 2009 and 2015.

Without more spectrum for mobile broadband, the "cloud" will remain stubbornly stuck over the world's homes and businesses, leaving consumers unable to tap its full potential when they are away from their wireline connections, if they have them.

Fourth, we face **privacy and security gap** issues on which there is now focus on both sides of the Atlantic. Trust has always been necessary for commerce, and that's no less true for e-commerce and cloud computing. Adoption of broadband and the cloud—by both consumers and businesses—will be inhibited to the extent there is a lack of trust. It's reasonable to expect that consumers and businesses will require a high level of confidence before they place sensitive financial or medical information in the cloud. And it is an unfortunate fact that the information economy enhances both the motive and the means for thieves to steal identities and intellectual property.

The good news is that the information economy also creates real incentives for cloud services providers to provide security and ensure privacy. And our collective challenge is to ensure that the ability and incentives to protect information outweigh the ability and incentives to pilfer it.

And fifth, we face **a regulatory gap**, the gap between inconsistent laws and policies in different countries, as well as legal uncertainty, preventing cloud computing from scaling up and driving down costs for consumers and businesses.

Of course, there will be some circumstances in which policies differ for good reason across geographic boundaries.

But the principles I believe we agree upon are more significant, and numerous, than the issues on which our perspectives may differ. Consider, to offer just one example, the OECD's declaration in its Innovation Strategy published last year that, "Governments should promote information and communication technologies . . . as general-purpose platforms for innovation and knowledge sharing by upholding the open, free, decentralised and dynamic nature of the Internet."

We can unlock tremendous economic and social value by uniting around core principles to protect and encourage free flows of information and data.

I believe there's also broad agreement on this: The private sector, which owns and operates the vast majority of our global Internet infrastructure, will be indispensable to addressing many of these gaps and challenges, as well as investing massive sums to deliver robust networks. There's also an important but limited

role for government to play in facilitating global information flows, including by cooperating on baseline policies and reducing barriers to the full deployment of cloud computing.

In the U.S., we are focused on a series of actions to tackle these challenges.

President Obama has provided important leadership embracing broadband as key to innovation and economic growth, and setting ambitious goals for 4G wireless deployment.

Last year, as many of you know, the FCC released our National Broadband Plan—a comprehensive, data-driven strategy to maximize broadband deployment, adoption and use, and unleash the benefits of high-speed Internet.

The Plan also includes initiatives to tackle key national challenges like promoting e-health, fostering broadband-enabled educational technologies, developing a nationwide Smart Grid and encouraging e-government.

And it focuses attention on the importance of incorporating broadband into public safety communications. We've seen in Japan, Haiti and elsewhere how modern communications networks can save lives and speed relief.

Since the Plan's release last year, we have actively been putting its recommendations into action. We have, for example, worked with our Congress to lay the groundwork for an innovative policy proposal—voluntary incentive auctions for spectrum.

I've been asked about this by several of you, as mobile congestion becomes a more and more common concern. So let me spend a quick minute on it.

Under our proposal, Congress would give the FCC the authority to run two-sided spectrum auctions.

We would auction spectrum for flexible wireless broadband services, and the spectrum in the auction would be voluntarily contributed by current licensees like TV broadcasters or mobile satellite operators, who would in return receive a portion of the proceeds of the auction.

These auctions provide an incentive-based, market-driven path to move spectrum to its highest-valued use, bringing market forces to bear on spectrum licenses that have been shielded from competitive dynamics for decades. As spectrum congestion becomes a larger issue worldwide, we anticipate that incentive auctions can become a key element of policymakers' toolkits in many countries.

We have also released the largest amount of spectrum devoted to unlicensed use in 25 years. We expect this to lead to services like "super WiFi" and to spur experimentation with new, innovative technologies and services.

We are modernizing our universal service programs to shift from supporting the essential technology of the 20th century telephone service to the essential technology of the 21st century broadband that can deliver voice, video and data. Two of these universal service programs are particularly important for enabling cloud-based health and education services: our E-Rate program, which supports connectivity for schools and libraries, and our health care connectivity program, which does the same for rural hospitals and health care clinics.

We are working to overcome barriers to broadband adoption, pursuing multiple initiatives targeted at both consumers and small businesses.

And we are working to reduce barriers to broadband deployment like lengthy waits for tower siting approvals. We set a shot-clock last year to accelerate this process. And in two weeks the FCC will be voting on an order to facilitate better access to utility poles.

Consistent with the Plan, we continue to promote the use of cloud-based computing in government; in fact, in November, the U.S. administration instituted a "cloud first" policy for information technology contracts, which could allow federal agencies to cut their IT per-unit costs in half.

And we've adopted basic rules of the road to preserve Internet freedom and openness, a key element of promoting and protecting the cloud and global information flows.

The rules are simple, fit on less than a page, and preserve free markets and free expression online, by ensuring:

- Transparency;

- The freedom of consumers to go where they want, use the services they want and read and say what they want online; and

- The freedom of innovators, including broadband providers and entrepreneurs, to launch new products, reach new markets and continue driving the innovation economy.

Our framework recognizes the need for return-on-investment, including by allowing usage-based pricing, explicitly accepting the legitimacy of reasonable network management and recognizing differences between fixed and mobile services.

This framework does not regulate the Internet, but rather preserves the Internet's freedom and openness by ensuring that no central authority, public or private, can act as a gatekeeper to the Internet.

It is consistent with the U.S.'s long-standing light-touch approach to Internet policy, which has always included basic protections for network openness at the national level while emphasizing the importance of voluntary, multistakeholder, technical institutions.

These have been some of our steps so far to meet the challenges we face in common. We know the EU has been active in tackling these same challenges.

I applaud the development of the EU Digital Agenda.

As I said earlier, in a number of respects, our broad policy frameworks and histories differ, so it's no surprise that some policy specifics differ.

What are more important are the common values the EU and U.S. share in our approaches to Internet freedom—and the benefits we can reap by promoting the adoption of principles that embody those values around the world.

Because our efforts in the U.S. and Europe will be necessarily incomplete unless we can embrace a new transatlantic dialogue and craft the principles with which to tackle our challenges at a global level.

That's how the 1997 WTO agreement gave investors and entrepreneurs the regulatory stability needed to unleash a global telecom revolution. I believe that's how we'll help the Internet and cloud computing become the next great global telecom breakthrough.

And that's why the work of the IDEA project bringing together policymakers from multiple countries, private companies and civil society is so important.

In that spirit, let me pose one overarching question that may help guide the discussion today and some specific questions. The umbrella question: How can governments increase regulatory predictability related to the cloud?

Agreement on three types of policy principles can help us achieve that goal:

- Principles for avoiding unduly restrictive and protectionist policies that limit market entry, directly or indirectly;

- Principles for harmonizing international spectrum and communications device approval policies; and

- Principles for promoting trust on the Internet.

First, avoiding restrictive, protectionist policies. To what degree do rigid, in-country data center requirements undercut the efficiency and cost savings offered by cloud computing? What international norms should exist with regard to the placement of data centers? How can governments ensure that data can flow more

freely across state borders?

Second, policy harmonization. How can we best promote harmonization of spectrum for mobile broadband? How can and should spectrum harmonization lead to harmonized rules for wireless access to the cloud? What can policymakers do to expedite the approval of communications devices that are increasingly essential to data flows?

And third, promoting trust. How can policymakers ensure that consumers are empowered to control their personal information and protect their privacy? How can we foster private agreements to combat piracy while preserving Internet openness?

The IDEA Project is an excellent vehicle to explore these questions, which I also look forward to addressing in other bilateral and multilateral forums.

A goal that I believe will benefit all of our countries: To develop over the next several months, as a group of policymakers with participation from firms and NGOs, a common paradigm that enables good governance and prudent restraint from unnecessary regulation.

One hundred fifty years ago, most people relied on power they produced themselves to run their farms and small businesses. But widespread electrification, combined with common practices for energy transmission and distribution, allowed companies to bear the burden of producing power instead, generating economic growth and lifting millions out of poverty.

A thriving global cloud computing industry, built on ubiquitous broadband, can be as beneficial for economic growth in the 21st century as electricity was in the 20th.

I strongly believe we're at a crossroads when it comes to the future of the Internet.

Down one path is a free, open and common global medium, generating ongoing innovation and massive economic and social benefits worldwide.

Down another is a balkanized Internet that stunts innovation and slows economic growth.

Inaction and misguided action will give us the latter, not the former.

But it's not an understatement to say that wise action on the part of this group and others can help deliver a bright future for billions of people around the world.

I'm glad to be here, and I look forward to participating actively in this effort.

"I don't doubt that we have the same shared vision that this platform [Internet] will lift all the world out of poverty, that it will give us a means of achieving impossible feats such as solving the climate crisis, stopping nuclear proliferation, ending poverty and even saving our much-maligned but wonderful mode of governance called democracy. But none of this will be possible if we don't move forward with our thinking and our planning."

- Reed Hundt

Remarks Given at the Aspen IDEA Plenary Washington, D.C.

Reed Hundt

Chairman, Aspen Institute IDEA Project

November 1, 2011

Welcome to the final plenary meeting of the Aspen IDEA forum.

When we started out two years ago, we built on the fine work of Jonathan Aronson of USC [University of Southern California], who along with Peter Cowhey and Don Abelson, had convened a group of firms to discuss global Internet issues. This trio, Charlie Firestone and I met with all the relevant leaders of the hydra-headed United States government and obtained their strong support for commencing this forum. We also met with the companies and NGOs in this room, and others who dropped out along the way for various reasons, to explain our purpose. I flew to Brussels to dine with American Ambassador to the EU Bill Kennard and Commissioner Kroes the week she took her job so as to explain our purpose and invite her participation.

As we said to all, the goal of the forum was to dedicate two years to a multistakeholder process intended to design a strong governance system that would ensure a single global Internet, a single global digital economy. Specifically, we wanted to help the Internet wrap around the world a common medium through which economic and human rights would be securely, fairly, openly, freely exercised.

Then we went to foundations to obtain the funding for multiple plenaries, which eventually were held in Washington, Los Angeles, Brussels and now back here for the concluding meeting. These plenaries were snowballs that kept growing, as we added numerous European firms and NGOs from other continents to our forum.

We owe particular gratitude to Markle, Ford, MacArthur and Knight [Foundations] for making this journey possible. Stefaan Verhulst in particular we want to acknowledge for traveling, and often leading us, every step of the way.

The Aspen staff, of course, was directed by Gary Epstein, whose deft direction and keen insight have been critical to all our progress. Shanthi Kalathil and Sarah Eppehimer, recently joined by Kate Aishton, have handled big concepts and small details with panache and care.

At the outset, we believed that the forum had two parts: develop a consensus view about the beliefs and values of the Internet of our dreams, and construct a means of implementing that view for everyone in the world. The test of the implementation would be this: Could it apply to the hard cases of deviation from generally accepted principles of which we have had many dramatic examples in the last two years?

As to the first part we have been largely successful, thanks to everyone here.

As to the second, we have not ended up where we hoped. Your Aspen staff, two years ago, believed that a consensus would ultimately emerge around a trade agreement that emphasized market access for broadband at the hardware, software and content levels. We hoped that we could load on to the back of the truck of a trade initiative the Principles. By means of trade, they would be exported into the economy and national legal regime of every signatory country, and a single digital economy would emerge that demonstrated respect for rights of property and privacy, as well as human rights and security. Just as in the United States starting in the 1990s, we specifically embraced as a principle the idea of multistakeholder governance for the Internet; we hoped trade would carry that notion into a framework of a single digital economy.

Our aspiration was based in large part on the success of persuading 69 countries to sign the telecommunications treaty of 1997, more precisely called the telecom annex to the basic trade agreement. That negotiation was started by the WTO in Marrakesh in 1993, and its purposes were defined by Vice President Gore in a major speech to the ITU Development Conference in Buenos Aires in early 1994. As designed in large part by Peter Cowhey and Don Abelson, the art of that negotiation lay in the linkage of the multilateral agreement to behavioral principles stated in a reference paper.

As it turned out, this forum did not find a consensus around a trade agreement, or any other means of implementing principles of governance and behavior on the common medium.

As to the principles, on the other hand, our reach did not exceed our grasp. This group's work has produced a rather clear statement of the ideal Internet culture. The Aspen IDEA Principles have influenced and supplemented the principle development process at other forums, especially the government-sponsored work at the OECD.

The Aspen IDEA Principles have not been submitted for signature by anyone, and each of you is able to disagree with them in whole or in part. But they will deserve the publication Aspen intends to give them, and I believe each of you should feel good about the hard and open-minded thinking you did to help generate them.

The Aspen Principles overlap but are different from those of the OECD. In comparison to the OECD principles, the Aspen principles reflect somewhat greater focus on transparency in state regulation of the digital economy and are a little less precatory and hortatory in phrasing. Our version is less sanguine about current trends for the global Internet, more focused on cross border data flows and more explicit about trade issues.

Nevertheless, in spirit, our Principles and those emerging from the OECD are consistent. Both of these statements have much more useful detail than other efforts have produced. Most saliently, they both endorse multistakeholder governance. It is important to note that this is a fairly radical departure from the way telecommunications and media have been governed nationally and internationally.

Both the OECD and Aspen Principles are insufficiently detailed. But they are very good starts. Whether the OECD, Aspen, or other forums and institutions should carry forward the work of principle refinement is, I think, one of the important topics for this final plenary.

It is true, however, that the OECD Principles and the Aspen Principles, and all competing principles in the global discourse, all suffer from the lack of endorsement by NGOs and from the absence in their processes of the overwhelming majority of nations. Their biggest defect is that they lack mechanisms for binding, or even substantially encouraging, behavior consistent with their norms.

That was the second part of this forum's mission: where our achievements lie, if anywhere, in the future. In effect, the principles of the OECD and Aspen are like a law without enforcement either by government or by private sector dispute resolution; they are like technical standards without certification processes that create compliance; they are like norms that are often honored in the breach.

The test is do principles solve problems? I fear that principles alone are not likely to address with efficacy the problems of Twitter in the United Kingdom's riots; or Google, Microsoft, Disney or, again, Twitter trying to create and capture value in China; or individuals languishing in jails all around the world for expressing themselves in the global medium of the Internet. Those familiar with the frustrations of international law might tolerate these deficiencies. Those of us who are a tad naïve about diplomacy but deeply convinced of the full potential of the Internet perhaps have more willingness to weave together multistakeholder decision making, new institutions, standard-setting bodies, law, regulation and norms to create a strong web of support for a common medium.

But in our Aspen IDEA forum, the agreement on a trade agenda did not materialize. I see two causes. The first is that the global trade agenda was severely hampered by the Great Recession, and neither business nor government could mobilize the will to take action in this new topic area. The future prospects for

trade as a venue for the issues of the digital economy is another topic of this final plenary, and we are fortunate that we will hear on this topic from former trade ambassador Charlene Barshefsky.

The second thing that happened is the emergence of competing and unharmonious perspectives concerning national sovereignty over the workings of the Internet. In 1996 the United States Congress passed with a strong bipartisan vote the Telecommunications Act. It provided a model for deregulation and competition that American government leaders and firms were able to explain successfully around the world. That model lent credibility to the advocacy of the 1997 trade agreement.

By contrast, in 2009-10 the FCC's open Internet rulemaking was as contentious as most all the rest of our country's governance efforts in recent years. As the appeals make their way through the courts, all can see the emergence in some quarters of a strongly held view that the FCC should have very little, if any, jurisdiction over the Internet, even as that medium subsumes voice, video and the virtual version of every good and service in the economy. I would not be surprised to see this view militate for a new telecommunications law by, perhaps, 2015. I am not expressing a personal preference here. My point is that the lack of consensus domestically about Internet governance has meant that the United States was not able to show as much thought leadership on this topic in the international arena as it did in the 1990s.

Others might say the United States has lost negotiating power or is leading from behind. I have always sided with Keynes, who said, "Ideas shape the course of history." In any event, both conversation and politics abhor vacuum, so notions of Internet governance have been offered from various places in the world. European Commissioners Kroes and Reding have been explicit about the inevitability of some governmental intervention. Some believe that Brussels seeks to use regulation to create new sources of revenue for network build out, and to regulate pricing on such networks. Others see Brussels as focused more on privacy issues that may happen also to restrict cross-border data transfer. On this topic, we are fortunate to be able to hear the views of Deputy Director-General Antti Peltomäki, who has made a long trip to be with us. Whatever is one's assessment of the direction of the EC, when President Sarkozy explained government's role in Internet governance to Google's Eric Schmidt in Paris at the eG-8 in May of this year, most people agreed with reporter Michael Wolff that "the old establishment [wished to] remind the new that regulation is rational and inevitable."

Acting more by deed than word has been China. In that country, the cyberattacks called Operation Aurora began in mid-2009 and continued at least until December. Dozens of companies were targeted, although only Google, Adobe, Juniper and a few others had the temerity to disclose they were victimized. Given

the severe trade and currency imbalances, the lack of adequate market access in China, and the problem of the undervalued renmimbi, it has been unwise for most governments and companies to discuss this topic in public. But without drawing a conclusion between cause and effect, here's a test question for the Americans in the forum: Name an American Internet firm that is as important in China as it is in the United States.

I'm no China basher. I believe I am still the only non-Chinese to have been officially designated as a strategic advisor to China Telecom. But it has been impossible not to recognize the scope and scale of China's state-sponsored interference with firms and individuals who use the Internet for economic or social purposes in that country.

Nor is that all: in the past 30 days alone we have heard proposals from a group comprising Russia, China, Tajikistan and Uzbekistan and from a group consisting of India, Brazil and South Africa that, according to writer Steve DelBianco, would "consolidate power for global Internet oversight in the hands of state actors, and by extension reduce the role of nongovernmental stakeholders in industry and civil society."

For at least these reasons, over the last two years, your Aspen staff's hopes for a consensus around a trade agenda have dwindled. As we saw the last plenary approaching, we decided to propose a different plan for implementing the Principles (or for that matter, the OECD Principles), even though we knew that we would not have much time to discuss it with the whole group. We spent a lot of time on our plan in August, when many here would assert we should have been at the beach, and in September we circulated it for your comment.

I come not to praise our Plan but to bury it.

By and large, you didn't like it. The kindest remark was to call it "creative," using the word to mean "unprecedented and for good reason." It was also called complex, bureaucratic and hierarchical.

There has been more:

- The plan departs from the legitimacy model of ICANN, although it—like ICANN—links multistakeholder organizations to government by means of contract.

- The plan links multistakeholder organizations to individual governments by means of contract, which even if legitimate, can leave government as an unhappy contract partner.

- The plan appears to describe state control of multistakeholder organizations, and although its text doesn't say that, appearances matter.

- Conversely, the plan does not permit government control of such organizations but instead delegates governmental authority to multistakeholder organizations.

"Imagination governs the world," said Napoleon, but maybe your staff had too much of that and not enough of your deliberative input. So in short, we do not think it would be productive to dedicate this plenary to discussing the specifics of the staff plan.

But don't we still need to create some means of implementing the principles that most of us mostly agree on?

As Treasury Secretary Geithner said during the stressful days of the stress tests that established new confidence in America in early 2009, "Plan beats no plan."

Is there a good one to be developed? We already see some plans that should give us chills.

Milton Mueller, who co-authored a paper with our Peter Cowhey on ICANN, last week wrote about the India, Brazil and South Africa proposal for Internet governance:

> In the IBSA proposal, who actually has authority to establish credentials for participation, set the agenda, make decisions, etc.? If nongovernmental participants make these decisions on equal terms with the governmental representatives, then why are IBSA proposing the United Nations as the venue for the new body?... Why not propose new nongovernmental institutions, or propose evolutions of existing multistakeholder bodies like IGF and ICANN?

Mueller might not like the Aspen staff plan, but he would recognize it as proposing new nongovernmental institutions, which is what our PCO would be, and also evolutions of existing bodies, which is where our uneuphonious SMOs would come from.

But Mueller went on to write: "It really is a polarized choice. Internet governance can either be de-nationalized and based on the Internet's users and suppliers, or it can be intergovernmental. It cannot be both."

Mueller, I think, should add to his list of possibilities a hybrid approach where governments have roles, acting alone and also acting together, and also the Internet is "based on...users and suppliers." In fact, this hybrid approach is characteristic of almost every sector of every mixed economy in the world. Even here in the United States, after the government's astounding fiscal and monetary interventions of 2008 and 2009, no one can honestly say that we don't have a mixed economy.

Does anyone think that if the Internet were under the same threat of collapse as was the global financial sector in the winter of 2008–09 and government could save it, that government would not, or should not, try to do so?

In truth, something very like that circumstance emerged in various countries in the Arab Spring, and foreign governments did step in to support, spread and uphold Internet culture. Moreover, the Secretary of State has made it a tenet of American policy that the United States, hopefully in concert with other governments, will promote the Internet as a single global platform. Our forum participant Alec Ross of the State Department just explained this point in Russia last week, speaking to a government that does not seem to believe, as yet, in the Aspen—or any other—Principles.

And of course all governments, as I wrote in an article published in the fall 2010 edition of *Media Law and Policy*, will want a common medium for their countries. In the past it was broadcasting; in the future it will be the Internet. What was the 2010 National Broadband Plan, if it was not a detailed explanation for how to create a platform for a high performance knowledge exchange adopted by all Americans based on the common medium of the Internet?

Moreover, the multistakeholder governance idea definitely needs an effective implementation plan because it is a fragile and, to some, unfriendly idea. Always, plan beats no plan, but that's especially true when the problem the plan is supposed to solve is a hard one. Multistakeholder governance, after all, sounds like democracy to some and technological elitism to others. Neither form of governance is appealing to the unelected or unfairly elected governmental leaders who assert sovereignty over most of the world's people.

How then do we promote the multistakeholder approach in the real world? Don't we need to start by figuring out how government—whether it is a single nation or nations acting in concert by treaty or implicit understanding—interrelates successfully with the multistakeholder organizations that have done, to date, an excellent job of encouraging the global spread of the Internet? And don't we have to figure out as we mesh governmental and nongovernmental gears exactly how deviations from the common culture of the common medium will be minimized and discouraged? These were the problems that the Aspen staff plan tried to solve.

Given that we did not believe the trade route was open at this time, we decided instead to invent a nontrade but trade-related approach. That's what you received from us. Your staff still thinks that market access is a useful theme for advocating multistakeholder governance. Dozens of nations deny open market access to firms in the digital economy. That denial of access usually accompanies a similar disrespect for rights of property, privacy, assembly and expression. Perhaps market access can be a topic around which multiple constituencies can rally.

Information and communications technology—the digital economy—is not the only sector in the global economy that needs a new and better international governance regime.

Virtually every nation in the world is now struggling to cope with one boundary disobeying, disruptive, overwhelming powerful, country-disrespecting industry: I refer to the financial industry. Leaders fall, people are enriched or impoverished, and yet countries acting alone can do little to take charge of their own fates.

There is a multistakeholder process that governs the financial industry. But it is far from open. It surely doesn't include NGOs. It definitely lacks representatives from the user groups. Perhaps the financial sector is a cracked mirror of the Internet, but if we look at that broken glass, the image shows us three things:

First, technology is not deterministically guaranteed to produce good results for humanity.

Second, the only plausible governance plan includes both government and nongovernmental agents.

Third, outcomes matter. The financial system delivered bad outcomes and as a result its governance is in turmoil. If the Internet culture cannot solve the problems of market access, property rights and individual freedom, then its governance will be in trouble. A multistakeholder idea will survive only if it produces good results.

For various reasons, we each have chosen in our lives to embrace and enjoy and be stewards of the Internet. I don't doubt that we have the same shared vision that this platform will lift all the world out of poverty, that it will give us a means of achieving impossible feats such as solving the climate crisis, stopping nuclear proliferation, ending poverty and even saving our much-maligned but wonderful mode of governance called democracy. But none of this will be possible if we don't move forward with our thinking and our planning. If we don't, who will? And as Winston Churchill said 70 years ago this week, when the United States still was not in the war, the lesson we must keep uppermost in our mind is this:

> Never give in. Never give in. Never, never, never, never—in nothing, great or small, large or petty—never give in, except to convictions of honor and good sense.

In the next two days, let's discuss our convictions of honor and good sense candidly and without suspicion of motives, based on the resolve not to give up our quest for the global vision that has inspired us all for the last two amazing decades.

Cross-Border Information Flows and Digital Trade Principles

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	Aspen IDEA Foundation Principles						
Benefits of the Internet & Cloud Computing	An unfettered flow of communications across borders is essential to the wellbeing of virtually every country, business and individual in the world. Yet new forces of fragmentation, repression, and disregard for fundamental rights of property, security, privacy and human rights are challenging the future of this common medium.	Internet provides an open, decentralized platform for communication, collaboration, innovation, productivity improvement and economic growth.				Internet an essential and irreplaceable tool for commerce; drives innovation and global economy, improves efficiency.	These statements relate to the benefits that can be obtained through appropriate public policies for the Internet, cross-border information flows and digital trade. These benefits are why governments should take the actions and adopt the policies outlined below.
		Internet allows people to give voice to their democratic aspirations, and any policy-making associated with it must promote openness and be grounded in respect for human rights and the rule of law.				Internet is a unique information and education resource that can help promote freedom, democracy and human rights.	
		Strength and dynamism of the Internet depends on its ease of access to high-speed networks, openness, and user confidence.				Broadband Internet access is essential infrastructure for participation in today's economy; therefore seize emerging opportunities, such as cloud computing, social networking and citizen publications, which are driving innovation and enabling growth.	

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Public Policy Process	Internet and cloud computing requires flexible and cooperative approaches to public policy.	Foster voluntarily developed codes of conduct.	Inclusion of references to voluntary cooperative efforts and voluntary codes of conduct "troubling." Concerned by references to private sector voluntary cooperative efforts to protect intellectual property rights, including "lawful steps" to address/deter infringement, which would encourage overbroad filtering, removal or blocking of content.			Internet and its development, fostered by private sector initiatives and investments, require favorable, transparent, stable and predictable environment.	The current approach to Internet governance is working, so there is no need for significant change. The open, voluntary, multistakeholder process has worked well and should be maintained.
		Create multistakeholder policy development processes.				Holistic approach to innovation and growth needed; requires broad engagement and guided collective action toward shared goals, such as market integration and limiting market barriers, while reducing potential frictions resulting from national approaches.	
		Develop capacities to bring open, reliable data into the policy-making process.				Face challenges in promoting interoperability and convergence on data protection, net neutrality, transborder data flow, ICT security, IPR.	
		Maximize individual empowerment and responsibility.					
		In many cases, public intervention is needed to ensure greatest practical access to these networks in our countries, particularly rural and remote areas.					

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	Aspen IDEA Agenda For Action						
Global Approach	Governments should embrace a global agenda for the Internet.					Action from governments needed through national policies, but also through promotion of international cooperation. Support multistakeholder model of Internet governance: maintain flexibility and transparency. Governments have a key role to play in this model.	Public policy and regulation must recognize the global nature of the Internet.
Local Presence Requirement	Governments should not require that facilities or information be located in a specific country or region.			*Local Infrastructure:* Governments should not require ICT service suppliers to use local infrastructure, or establish a local presence, as a condition of supplying services; nor should they give priority or preferential treatment to national suppliers of ICT services in the use of local infrastructure, national spectrum or orbital resources.	Cloud computing can reduce costs, increase security, and help the government take advantage of the latest private-sector innovations. This new industry should not be crippled by protectionist measures, so the proposal prevents states from requiring companies to build their data centers in that state, except where expressly authorized by federal law.		Requirements to locate servers or other infrastructure within a country could limit the country's ability to benefit from the global Internet and new, innovative and cost-effective services, such as cloud computing.

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Intermediary Liability	Governments should provide cloud providers with appropriate safe harbors from liability for the content or expression of their users.	Appropriate limitations of liability for Internet intermediaries continue to play a fundamental role with regard to third party content. Intermediaries can and do play an important role by addressing and deterring illegal activity. Limitations play an important role in promoting innovation and creativity, the free flow of information, and in providing incentives for cooperation between stakeholders. Within this context governments may choose to convene stakeholders in a transparent, multistakeholder process to identify appropriate circumstances under which Internet intermediaries could take steps to educate users, assist rights holders in ensuring their rights or reduce illegal content, while minimizing burdens on intermediaries and ensuring legal certainty for them, respecting fair process.	Internet intermediaries should not be called upon to make determinations about the legality of content passing through their networks and platforms because they are neither competent nor appropriate parties to do so. The role of intermediaries as "mere conduits," and accompanying liability limitations found in many OECD countries, is integral to protection of civil liberties online. Intermediaries should not be required to "assist rights holders in . . . reduc(ing) illegal content."				
Transparency & Due Process	Any government regulation affecting data transfer and use should be transparent, equitable, necessary, provided for by law and consistent with international standards on privacy, security, the protection of intellectual property and free expression.	Ensure transparency, due process and accountability.		Governments should ensure that all laws, regulations, procedures and administrative rulings of general application affecting ICT and trade in ICT services are published or otherwise made available, and, to the extent practicable, are subject to public notice and comment procedures.			Transparency and due process are essential for good public policy and a critical element of a "trusted environment" that is needed to promote growth and opportunity in the digital economy.

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Access to Third Party Information	Governments should implement clear, transparent and impartial laws, including appropriate due process protections and reasonable notice, to govern requests for third party information.						Transparency and due process are essential for good public policy and a critical element of a "trusted environment" that is needed to promote growth and opportunity in the digital economy.
Data Protection	Governments should give information housed in the cloud the same protection from government access as information stored locally or housed in any other environment.	To ensure cost effectiveness and other efficiencies, other barriers to the location, access and use of cross-border data facilities and functions should be minimized, providing that appropriate data protection and security measures are implemented in a manner consistent with the relevant OECD Guidelines and reflecting the necessary balance among all fundamental rights, freedoms and principles.	Concerned that text appears to endorse transborder data storage or processing without ensuring adequate levels of privacy protection and in ways that could place unjustifiable restraints on freedom of expression based on local laws.			See Trusted Environment	Data stored online should receive no less protection under the law than data stored in other ways.
Consumer Protection	Governments should develop fast, efficient methods for gathering and sharing information regarding fraudulent and deceptive commercial practices that can victimize consumers through the Internet, and the means to deter, detect and prevent such practices.				National Data Breach Reporting: State laws helps protect against identity theft, but are a patchwork. Legislation would simplify and standardize.	See Trusted Environment	

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Trusted Environment	Global Internet policy and practice must promote a functioning 'trusted environment' with respect to issues such as security, privacy, protection of intellectual property, and free expression.	While promoting free flow of information, governments should work towards better protection of personal data, children online, consumers, intellectual property rights and cybersecurity. Governments should also respect fundamental rights. Limit Intermediary Liability (see relevant section). Encourage cooperation to promote Internet security (see Cybersecurity). Encouraging investment and innovation requires clearly defined legal rights and a robust and fair process to protect rights, including users' rights, consistent with the need of governments to enforce applicable law. Governments, industry and civil society should work together to foster respect for the law and protect fundamental rights.	OECD text overemphasizes protection and enforcement of intellectual property rights, even at the expense of fundamental freedoms. Text elevates intellectual property rights to a level of importance comparable with internationally recognized human rights. Concerns about qualifications within the text with respect to "lawful" content and "lawfulness."		Legislation requires DHS to implement its cybersecurity program in accordance with privacy and civil liberties procedures developed in consultation with privacy and civil liberties experts and approved by the Attorney General. All monitoring, collection, use, retention and sharing of information are limited to protecting against cybersecurity threats.	Intellectual Property Rights (IPR): recognize need for national laws and frameworks for improved enforcement. Commit to ensure action against IPR violation in digital arena, including action that addresses present/future infringements. Encourage continued innovation in legal online trade in goods and content that respects IPR. Privacy: protection of personal data and individual privacy is essential to user trust. Security of networks and services is a multistakeholder issue. Pay attention to all forms of attacks against integrity of infrastructure, networks and services. Promoting user awareness is crucial. Governments have a role to play.	"Trusted environment" encompasses a very broad range of issues. Voluntary industry best practices, market-driven technology solutions and consumer education will play important roles. Governments must find an appropriate balance when considering regulations, avoiding unnecessary or counterproductive measures with unintended consequences.

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Free Flow of Information	Global Internet policy should enable open and diverse expression.	*Promote and Protect the Global Free Flow of Information*: The Internet economy, as well as individuals' ability to learn and express themselves, depends on the global free flow of information. To encourage the free flow of information online, work together to advance better global compatibility across diverse laws and regulations. While promoting free flow, governments should work towards better protection of personal data, children online, consumers, intellectual property rights, and cybersecurity. Governments should also respect fundamental rights.		*Cross-Border Information Flows:* Governments should not prevent service suppliers or their customers from electronically transferring information internally or across borders, accessing publicly available information, or accessing their own information stored in other countries. *Open Networks, Network Access and Use:* Governments should promote the ability of consumers legitimately to access and distribute information and run applications and services of their choice. Governments should not restrict the ability of suppliers to supply services over the Internet on a cross-border and technologically neutral basis, and should promote interoperability of services and technologies, where appropriate.		Arbitrary or indiscriminate censorship or restrictions on access are inconsistent with States' international obligations and unacceptable; also impede economic and social growth.	Cross-border data and information flows are essential for cross-border delivery of services, and restrictions on these flows could undermine cross-border services commitments in trade agreements and cut off trade flows. Creating a "trusted environment" could reduce a government's perceived need to block or restrict data flows.

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Cybersecurity	All stakeholders must recognize government and private sector needs for security of the Internet.	Implementation of internationally recognized, market-driven security standards and best practices to promote online security should be encouraged. Policies to enhance online security should not disrupt the framework conditions that enable the Internet to operate as a global open platform for innovation, economic growth and social progress.	Concerned that OECD text elevates cybersecurity and intellectual property rights to a level of importance comparable with internationally recognized human rights.		*Penalties for Computer Criminals:* Laws on cybercrime not synchronized with those for other crimes. Legislation clarifies, synchronizes and sets mandatory minimums. Provides immunity to industry, states, local government when sharing cybersecurity information with DHS—with robust privacy oversight to ensure civil liberties not infringed.		The market provides a tremendous incentive to ICT hardware, software and service providers—and their users—to take the steps necessary to ensure cybersecurity. A cooperative public-private partnership including all stakeholders can complement market forces to enhance security. Governments must recognize the global nature of the Internet when considering cybersecurity policies. Global cooperation is needed. Efforts to ensure cybersecurity should be based on international standards and best practices.
Technology Solutions	Internet and cloud providers and users should protect and secure information by implementing market-driven technology solutions that are updated as needed to address rapidly evolving privacy and security threats and that are appropriate for the level of sensitivity of the particular information.				Protect federal government computers and networks, including management, personnel, intrusion prevention systems, data centers.		Market-driven technology solutions are an important element of a trusted and secure environment.

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Service Provider Privacy Obligations	Internet and cloud providers should transparently explain their information handling practices.						Service providers can go a long way towards creating a trusted environment and reducing the need for regulation by adopting appropriate, accountable and transparent information handling practices.
	Internet and cloud providers should disclose requested third-party information only to the extent required by law and, to the extent permitted by law, should provide the affected customers with reasonable advance notice of any such compelled disclosure.	Strengthen consistency and effectiveness in privacy protection at a global level. Privacy rules should be based on globally recognized principles, such as the OECD privacy guidelines, and governments should work to achieve global interoperability by extending mutual recognition of laws that achieve the same objectives. Privacy rules should also consider fundamental rights such as freedom of speech, freedom of the press and an open and transparent government.					
	Internet and cloud providers should adopt a clear, flexible and accountable framework for the flow of data.						
	Governments should encourage expansion of the Internet and the cloud.						

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Trade	Governments should expand the capability of the Internet to increase trade.	*Promote an Open Internet*: The Internet's openness to new devices, applications and services is essential to its success in fostering innovation and economic growth.		*Open Networks, Network Access and Use*: Governments should promote the ability of consumers legitimately to access and distribute information and run applications and services of their choice. Governments should not restrict the ability of suppliers to supply services over the Internet on a cross-border and technologically neutral basis, and should promote interoperability of services and technologies, where appropriate.			The Internet holds the potential to become a major "trade route of the 21st century," bringing substantial benefits to both developed and developing countries. Cross-border data and information flows are essential for cross-border delivery of services, and restrictions on these flows could undermine cross-border services commitments in trade agreements and cut off trade flows.
Network Investment & Competition	Governments should promote investment and expansion of the Internet as rapidly as possible. Governments should also expand the Internet by encouraging competition in broadband access and other relevant markets.	Promote investment and competition in high-speed broadband Internet networks.		*Authorizations and Licenses*: Governments should authorize the provision of competitive telecom services on simple notification by a provider and should not require legal establishment. Licenses should be restricted in number only to address a limited set of issues, such as assignment of frequencies. *Foreign Ownership*: Governments should allow full foreign participation in their ICT services sectors, through establishment or other means.			Access to broadband networks is a prerequisite for participation in the digital economy. Inadequate network infrastructure is a major competitive disadvantage for a country. Open competition and investment are the most effective ways to promote the deployment of broadband networks.

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Network Regulation	IP-based and converged services should have maximum regulatory flexibility and be subject to regulatory obligations only to the extent they are narrowly tailored to the dynamics of this rapidly evolving sector.			*Regulatory Authorities*: Governments should ensure that regulatory authorities that oversee ICT services are legally distinct and functionally independent from service providers and have sufficient resources to perform their functions effectively. Regulatory decisions and procedures should be impartial and publicly available. *Interconnection*: Consistent with GATS Telecom Annex, governments should ensure that public telecom service suppliers have the right and obligation to negotiate and provide interconnection on commercial terms with other providers for access to publicly available networks and services. Consistent with GATS Reference Paper, countries should ensure that public telecom service suppliers can obtain interconnection with major suppliers at cost-oriented, non-discriminatory and transparent rates.			Regulators should be very careful about extending traditional telecommunication regulation to the Internet and IP-based services to avoid impeding innovation.

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Spectrum Policy	Governments should embrace the goals of (a) maximizing the availability of spectrum through continual improvements in spectrum policy, (b) technology neutrality in the design of the wireless network and its devices and (c) commercially determined approaches to the intersection of the wired and wireless segments of the Internet space.	Promote investment and competition in high-speed broadband Internet networks.		*Use of Spectrum:* Governments should maximize the availability and use of spectrum and should allocate spectrum in an objective, timely, transparent and nondiscriminatory manner, with the aim of fostering competition and innovation. Governments are encouraged to empower regulators with impartial, market-oriented means, including auctions, to assign terrestrial spectrum to commercial users.			Wireless broadband networks are playing an increasingly important role in innovation and economic growth. Governments should establish spectrum policies to promote competition and to enable new technologies and services.
Technology Neutrality & Technology Choice	Governments should promote digital product neutrality for applications and software.	Public policies should help foster a diversity of content, platforms, applications, online services, and other user communication tools that will create demand for networks and services, as well as to allow users to fully benefit from those networks and services and to access a diversity of content, on nondiscriminatory terms, including the cultural and linguistic content of their choice.		*Open Networks, Network Access and Use:* Governments should promote the ability of consumers to legitimately to access and distribute information and run applications and services of their choice. Governments should not restrict the ability of suppliers to supply services over the Internet on a cross-border and technologically neutral basis and should promote interoperability of services and technologies, where appropriate.			Market competition is the most effective means for identifying technologies and services to meet economic and social needs. Government technology mandates can stifle innovation and create an economic handicap for the country.

Issue	Aspen Institute IDEA (3/16/11 draft)	OECD Principles (FINAL)	CSISAC Statement on OECD Principles (FINAL)	US-EU Trade Principles for ICT Services (4/4/11)	White House Cybersecurity Proposal (5/12/11)	G8 Deauville Declaration (5/27/11)	Comments
	Governments should reinforce policies that support technology neutrality.	Internet's openness to new devices, applications and services has played an important role in its success. This stems in part from continuously evolving interaction among different groups of Internet's technical components that allows collaboration/innovation while continuing to operate independently. Maintaining technology neutrality and appropriate quality for all Internet services is also important to ensure an open and dynamic Internet environment. Provision of open Internet access services is critical for the Internet economy.	Concerned that mention of net neutrality and common carriage are absent from OECD principles.				
Digital Literacy				*International Cooperation:* Governments should cooperate with each other to increase the level of digital literacy globally and reduce the "digital divide."			Digital literacy is essential for a competitive workforce in today's networked global economy.

Aspen Institute IDEA Project

The companies and/or individuals included in this list of participants attended or addressed at least one of the four Aspen Institute IDEA Project Plenaries: Washington, D.C., October 2010; Los Angeles, California, January 17-18, 2011; Brussels, Belgium, March 23-24, 2011; Washington, D.C., November 1-2, 2011. Not all companies and/or individuals necessarily participated throughout the duration of the Aspen IDEA Project process. Participation in the Project at any one point does not necessarily reflect agreement by a participant or their employer with any particular statement in this Report.

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The Aspen Institute
Communications and Society Program

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The Communications and Society Program is an active venue for global leaders and experts to exchange new insights on the societal impact of digital technology and network communications. The Program also creates a multi-disciplinary space in the communications policy-making world where veteran and emerging decision-makers can explore new concepts, find personal growth, and develop new networks for the betterment of society.

The Program's projects fall into one or more of three categories: communications and media policy, digital technologies and democratic values, and network technology and social change. Ongoing activities of the Communications and Society Program include annual roundtables on journalism and society (e.g., journalism and national security), communications policy in a converged world (e.g., the future of international digital economy), the impact of advances in information technology (e.g., "when push comes to pull"), and serving the information needs of communities. For the past three years, the Program has taken a deeper look at community information needs through the work of the Knight Commission on the Information Needs of Communities in a Democracy, a project of the Aspen Institute and the John S. and James L. Knight Foundation. The Program also convenes the Aspen Institute Forum on Communications and Society, in which chief executive-level leaders of business, government and the non-profit sector examine issues relating to the changing media and technology environment.

Most conferences utilize the signature Aspen Institute seminar format: approximately 25 leaders from a variety of disciplines and perspectives engaged in roundtable dialogue, moderated with the objective of driving the agenda to specific conclusions and recommendations.

Conference reports and other materials are distributed to key policymakers and opinion leaders within the United States and around the world. They are also available to the public at large through the World Wide Web, *www.aspeninstitute. org/c&s.*

The Program's Executive Director is Charles M. Firestone, who has served in that capacity since 1989, and has also served as Executive Vice President of the Aspen Institute. He is a communications attorney and law professor, formerly director of the UCLA Communications Law Program, first president of the Los Angeles Board of Telecommunications Commissioners, and an appellate attorney for the U.S. Federal Communications Commission.