19 Policies for the Emerging E-Commerce Marketplace

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I would like to briefly summarize the policy issues arising from the emerging electronic commerce marketplace.

Why should we care about e-commerce? One reason is the enormous impact electronic commerce is having on businesses and on our economy as a whole. Electronic commerce was a term that people did not even use ten years ago. Now it is an idea we cannot avoid. Companies that we now associate with electronic commerce, such as Amazon.com and eBay, are only several years old. It is quite remarkable that the public consciousness has been affected so dramatically and so quickly.

Electronic commerce is going to be a trillion-dollar activity in the next three or four years. What is even more striking is that the pronouncements we were making no more than nine months ago are outdated. In May of 1998, the Electronic Commerce Working Group issued a report for the Department of Commerce titled *The Emerging Digital Economy*. We optimistically projected at the time that electronic commerce would total perhaps $300 billion by the year 2002. By November 1998, when the President received our first annual report, the figures had grown dramatically. Now people quite confidently predict a trillion-dollar market in the next several years.

But the most important reason why we should care about electronic commerce is that it is changing our lives. It is changing the kinds of businesses we interact with and how they interact with us. It is changing how those businesses organize themselves. It is changing how they

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deal with their suppliers. It really is a sea change in the way we think about the world.

Governments first started to wrestle with questions of electronic commerce policy in 1996. In December 1996, the U.S. government issued a draft report, and for the first time in its policy making process, it accepted public comments over the World Wide Web from all around the world. In July 1997, the President issued the report titled *Framework for Global Electronic Commerce*, which is now available at www.commerce.gov.

Also in1997, the European community and the Japanese Ministry of Industry and Trade issued policy documents about e-commerce. The very broad agreement about electronic commerce and the Internet in these documents is quite striking given the different legal and cultural traditions.

One point of agreement was that electronic commerce and the Internet were potential engines for economic growth with important societal benefits. Also, the Internet was seen as a global institution. In terms of policy, the global nature of the Internet is a very important issue.

Even more striking in all of these papers was the notion that the private sector should play a key role. In fact, what has happened since 1993 or 1994 with respect to electronic commerce and the Internet was largely the result of the work of the private sector, not the government. Governmental action spurred the development of the technology that enabled electronic commerce, but the real growth of electronic commerce has been the result of private-sector leadership. This emphasis on private-sector leadership is one of the five crucial principles in the *President's Framework on Global Electronic Commerce*.

The second principle set out by the President was that government should avoid undue restrictions on electronic commerce. Too much control could "smother the baby" by not allowing new technology and new practices to emerge, not allowing innovation to thrive. "Undue" is a key word because the government is involved whether by enforcing consumer protection laws, or funding advanced R&D, or providing that electronic contracts can be enforced.

Third, where government involvement is needed, its aim should be to support and enforce a predictable, minimalist, consistent, and simple legal environment for commerce. People should be able to understand the rules, and the rules should be kept to the minimum required to accomplish an important social purpose. They should be enabling as opposed to restrictive.

Fourth, governments should recognize the unique qualities of the Internet. Often, in policymaking we look for the historical analogy, we turn toward the regulations and laws that are in place, and we try to apply them to the next "new thing." We need to ask ourselves how the rules would work in this unique environment, rather than simply applying them as they are written. How can we accomplish the important aims of existing laws in the cyberspace environment using the technologies and the capacity to innovate in this space?

Finally, the President noted that electronic commerce over the Internet should be facilitated on a global basis. The Internet and electronic commerce would be far worse off if treated as if bound by a nation's borders. If every nation made its own set of rules a genuine global medium would not emerge.

There was a surprising amount of agreement about governmental action but there are lots of barriers to making this work in a global environment. Among them are the very different legal regimens and cultural traditions, including the different ways different countries view the role of government.

For example, we are now engaged in discussions with the Europeans about privacy policy. Much of the difference between us rests on quite different views about the relationship between the citizenry and the government. Traditionally, (this is a gross exaggeration, but please allow it for purposes of illustration) laws involving privacy rights have been, in the U.S., first aimed at protecting citizens from their government. In many other countries, the government is viewed quite differently, as the principal protector of the citizenry. Therefore, the question of rights is not about rights vis-a-vis the government but of rights that may be infringed by institutions, including businesses. This type of thinking dramatically changes how one might look at regulating electronic commerce activity.

Another impediment in trying to think about the Internet on a global basis is a kind of mercantilist view that if the United States succeeded in growing e-commerce here it would be to the detriment of e-commerce success in Europe or Japan. Reports by other governments said, "We have to form our Internet policy, so that we won't be left behind. We don't want jobs to be created in the United States, rather we want them created in France or in Germany or in Japan." The issue of economic competition among regions can potentially frustrate the development of policies that facilitate on a global basis.

The Policy Structure for an Electronic Commerce Infrastructure

Telecommunication Infrastructure

A number of what I call infrastructure policies have to be addressed in parallel, not in series, to make electronic commerce work for the benefit of individuals and businesses. First, not in priority but belying of my telecom background, is the question of access to bandwidth. Most people connect to the Internet from homes or small businesses through dial-up modems. We are starting to see higher bandwidth connections for these users through cable modems, DSL technology, and others, but it is still a very, very small percentage. There are approximately 100 million U.S. households. At the end of 1998, it was estimated that about 300-500,000 households had cable modems and about 30,000 had DSL modems. So one-half of one percent of households have access to higher bandwidth. When lots of homes and businesses have access to higher bandwidth it will fundamentally change the experience of using the Internet, and will offer new tools to the innovative people creating electronic commerce.

International Market Openings

The second infrastructure question is one of market opening. On a global basis, people who offer connections to the Internet must be able to reach their potential customers. Internet service providers in Peru and in Poland must get the functionality they need in the telecommunications market. The best way of accomplishing this is moving from a monopoly environment in telecommunications to a competitive environment. Pricing structure must change so rates are reasonable. It means giving people access to particular kinds of connectivity. Fair terms for interconnection must be available. We are now starting to see national administrations around the world changing their views. They are liberalizing, privatizing, and actively working toward lowering rates for Internet access. They are trying to jump-start their connectivity and the connectivity to the Internet.

Legal Framework/Authentication and Security

The third issue is the legal framework for electronic commerce. Everyone has signed a contract at one time or another. Contracts in the U.S., by definition, require a reduction to writing and a signature, and in some cases, some method of authentication. But what if we want to form electronic contracts? We cannot think about it in the same way. If every electronic contract that you formed over the Internet had to be reduced to writing, sent back and forth for your signatures, and filed away, electronic commerce would slow to a crawl. We need to change our laws to allow for electronic contracts and at the same time to address security and authentication. How do you know that the person to whom you sent information is the person you intended to send it to? How do you know that the information you received was from the person whose name is on it? How do you know that the information was not changed? A legal framework has to be built so that people have confidence in using electronic commerce. That means confidence in the identity of the person they are communicating with, confidence in the security of the medium they are using, and confidence in the integrity of the communication. We will need to bring all our creativity to these subjects to benefit from technological development, such as new means of authentication, and protect ourselves from new threats to privacy and security. Without consumer confidence, electronic commerce will not grow.

Taxation

Taxation is another infrastructure issue. When Congress passed the Internet Tax Freedom Act in October 1998, it called for a commission to examine a series of questions and report back to the Congress in April of 2000. How do you, or do you, tax remote sales? Under certain circumstances, States and localities can tax remote sales, but they have to determine where the online companies are located, where the transaction took place, and whether there is sufficient nexus between the activity and the state or locality that seeks to tax it. We have a model in remote sales such as catalogue sales, but it may not be the model to be applied.

So how should we think about taxation? Should all kinds of sales be treated the same way? What is the impact on states and localities that raise a fair percent of their revenue from sales taxes? What does it mean for the bricks and mortar businesses that may have to pay everywhere

if they are physically everywhere? What does it mean for the cyber merchants, who are virtually everywhere and physically beyond the taxing authority? What would taxation due to the growth of electronic commerce? The taxation question is an important one and contentious.

Tariffs and Customs

Tariffs and customs also need to be considered. How should we think about the tariffs on material in an electronic form that crosses a national border? At the moment, if I send a CD across a border there is a customs duty based on the values of the physical medium. In this case the value of the physical medium is very low, but the value of the information on that disk may be quite high. But what happens if we send the same content electronically? It is not presently subject to customs duties.

The World Trade Organization now has a temporary moratorium on tariffs on electronic material delivered electronically and we support an indefinite extension of this moratorium. But, just as state and local governments are interested in taxing electronic commerce, other countries may well be attracted to duties on electronic.

Electronic Payment Systems

Another issue is electronic payment systems. An effective and efficient system is necessary for e-commerce to thrive. We have been lucky to have a well developed credit card system to use, but many potential users do not have credit cards and credit cards are not particularly useful for micro-payments. For the government there are issues about money laundering, particularly given the anonymity possible on the Internet. We must also consider the creation of new forms of money, and their impact on traditional currencies. What, for example, is this is going to mean for governments that have strictly controlled their currencies?

Security and Reliability

Another infrastructure issue is security and reliability. In 1991, when telecommunication networks crashed on both coasts, there were immediate congressional hearings. There were mandates to the Federal Communications Commission to take care of this problem. In response, a Network Reliability Council was established. More recently we have seen

people being unable to trade on E*TRADE or Schwab because of network failures. As more business and mission-critical activities go online, and more people incorporate the Internet into their daily lives, what will be the impact of network failure? Will we think about reliability as we think about the reliability of our desktop? (Well, it crashed again. But that's okay because I'll just reboot). Or is the analogy going to be the telephone system? (I'm not going to tolerate telephone system failure). Perhaps the penalty for the success of the Internet will be an increasing focus on reliability? If this is so, will the government have any role?

Universal Access

An additional infrastructure issue is universal access. Presently, about 94.5 percent of households have access to a telephone (which compares unfavorably to 98 percent of households that have color television sets). Unfortunately, the number is tied to income: 99 percent of households with incomes over $75,000 have access to a telephone, while 75 percent of households with incomes under $7,000 have such access. Telecom penetration varies considerably by racial and ethnic background, and by geography. There are similar but even more striking examples of disparities in access to computers and the Internet documented in Commerce Department reports.

Much can be done using community access centers. The Administration has worked very hard to connect schools and libraries to the Internet and to find ways of providing community technology centers as access points. But we will have to wrestle with the issue of a possible digital divide and what that means for our society. What kind of differences are tolerable for our society given the growing importance of access to information technology and the Internet?

Research and Development

The last infrastructure issue is research and development (R&D). What is the role for the government in R&D related to electronic commerce and to the underlying technologies? The government's role in the past has had an incredible impact in this area, extending beyond the creation of the Internet. For example, when people go on the Internet and use a search engine, or use a browser to navigate the Web, they are probably using instruments, that were developed using federal funds. The

research that has been supported has had enormous societal returns, but we will always need to ask where the government should direct its funding.

Policy Structure for Electronic Commerce Activities

Consumer Protection

There are also issues that I call "applications issues," that involve the transactional consumer interest such as the relevant consumer protection issues. We take for granted that the government has a role in consumer protection with laws against fraud and misrepresentation. The government has the same role in protecting consumers on the Internet. The difficult question, though, is what rules should operate around the world and how the rules should be optimized for the particular environment of electronic commerce because this particular environment has some quite unique characteristics.

Can you imagine an environment in which, if you are about to purchase something, you have a pop-up window that says, "This is what happens if you need to return it; these are your means of redress if you are not satisfied"? We do not do that in the real world or in the catalogue world. This electronic environment has some special capabilities that we need to consider. Consumer protection needs to exist in this space, but we must think about how we can accomplish the purpose of our existing consumer protection rules while utilizing these new capabilities. Perhaps we can even strive to create an environment that is even more consumer friendly.

Many people went shopping over the Internet in the 1998 holiday season. Unfortunately, some of the data after the holiday season showed a lowering of consumer confidence in e-commerce than before. Why is that? Some e-tailers were overwhelmed, swamped by the demand. From the standpoint of the Commerce Department we were glad there was demand. But some retailers did not let their customers know that they had run out of goods. They did not let people know that they had cancelled their orders. That was wrong, not only from the standpoint of building a business, but it was also a violation of existing rules that apply to all telemarketers. Some of these people were violating rules that they had not taken the time to understand. It is critical for businesses to obey such rules in order for people to feel confident in using the Internet.

Privacy

Privacy is another applications issue. In a survey of Web sites about 18 months ago, the Federal Trade Commission discovered that only 14 percent had their privacy policies posted. The On-Line Privacy Alliance and others have worked very hard with the major providers of e-commerce to make sure that privacy policies are posted and that people understand them. In fact, organizations like BBB*OnLine* and TRUSTe provide third-party verification of those policies. These privacy policies need to provide notice so that people know what is going to happen with their information and provide choice so consumers can decide if they want to have their information used that way. Internet users must have some redress mechanism if the information is misused. If self-regulation is to work in the privacy world, good privacy policies must be broadly used and they must reflect fair information practices.

Content Regulation

A third applications issue is content regulation. In the United States we tend to think about this issue in terms of pornography, but there are other important topics, such as sedition in China and hate speech in Germany. A prosecution is currently taking place in Germany because CompuServe had hosted a Web site that showed Nazi regalia. It was not a German-based site, but German law forbids the display of these items. The German prosecutorial authorities have sought to hold CompuServe responsible. What happens if a Chinese authority tried to act against a dissident group hosting a Web site based in the United States? Or consider someone in California operating a site that, by contemporary community standards in California, is not pornographic. But what happens if an attorney general in another state wants to shut it down because the site is available to people in another state whose standards would not accept it? How do we think about these content issues? How we deal with the special needs of minors?

The Administration sought to provide more and more tools to people so they can control their own communications. But these current issues are contentious, as you can see in the press at any moment.

Intellectual Property

The fourth applications issue is intellectual property. How do you accomplish the protection of intellectual property in this digital environment where you can make perfect copies and send them out to millions of people for a cost that is staggeringly low? Bills before Congress seek to implement treaties that emerged from the World Intellectual Property Organization negotiations. We are also facing conflicts in this area between the traditional needs of the academic and research community, people who seek to have access to information, and the desire of content creators to get the greatest economic rewards for their creations so as to spur creativity. These tensions will continue to exist and will be an important part of the policy discussions in the world for electronic commerce.

Regulation of Like Services

A fifth applications issue is regulation of like services. If you go to broadcast.com you can "watch" dozens of television stations that are being transmitted over the Internet. You listen to hundreds of radio stations the same way. In its physical world location, each one of these stations is subject to rules as a regulated broadcaster. Should those rules apply to the location where you are when you receive that station over broadcast? Should Internet telephony companies be regulated like local telephony companies as they are offering a like service?

Jurisdiction

The last issue, the question of jurisdiction, is perhaps the hardest issue. Almost all the above issues raise it. When we started policy discussions about the technical management of the Internet and trying to privatize the domain name system, the first response was to let the Internet community decide it. But who is the Internet community? How does it vote? Where does it go to vote when it makes these decisions? How should one allow people who have stakes in these issues to participate in their resolution? What role is there for governments? What role for multilateral institutions? Who chooses which rules apply and interprets them?

What happens if I have a retailer headquartered in California, a server in New York, a customer in France, and the delivery in India? Who gets to make the rules about what is allowed or banned? What kind of advertising can you do? What return policy for goods is applicable? And what about telemedicine—who will set standards for the practice of medicine? What about architects delivering blueprints? What about people who are engaged in other forms of professional services? How do we reach agreement about who is going to make the rules and which rules apply? Unless we can resolve these issues we are going to find people reluctant to offer their goods and services on the Internet. Think of the business owner who says, "I won't participate in electronic commerce if I don't know which one of 200 jurisdictions' consumer protection rules might apply." Think of a consumer who does not want to necessarily be bound by the rules of the location of the seller because he or she does not know what those rules are. So there are questions of who chooses which rules, who interprets the rules, and how they are enforced underlying all of these other issues.

This is an enormously vibrant and exciting time. AAAS members were present at the birth of electronic commerce, and we all have some stake in what policies emerge and how successful they are in striking the balance between enabling the growth of electronic commerce and preserving the fundamental values we have as a society. I hope AAAS members and the communities they represent become engaged in these policy debates because they are debates about the shape of our future. It is a new medium, we have a wonderful opportunity to make choices and we need all the help we can get.