

#### Dan Geer

Opening Statement to Congress on the Status and Future of InfoTech





#### **AUTHENTICITY CERTIFIED: Text version below transcribed directly from audio**

I want to give a bit of an overview that the other members of the panel will elaborate on. And it's relatively simple. In fact, it's intended to be simple. I think if we can't discuss this in simple terms, we're never going to get anywhere.

The electronic -- the conversion of much of the physical world to an electronic one, whether we're talking about government or business is simply inevitable. I'd like to think that was a non -- non-debatable point as we go forward here. It is just simply inevitable. It's already underway. The force of economy makes it so. There's no turning back. It will proceed in some locations faster than others, but it is already well underway and there -- it is simply a fact of nature.

It changes everything. Conversion of the physical world to an electronic one changes most everything that we know about, and yet at the same time in some odd sense it changes nothing.



The issues that are important to us in the physical world, whether it's trust or the ability to communicate with a counterparty and know whom you're talking to; the ability to have some recourse if -- if things go awry; the ability to find the resources that you're looking for -- all of those sorts of issues which were well familiar to us in a -- in a physical world also are issues in the electronic world.

The question at hand is: How do we get from here to there?

There are three -- There are only three requirements, to my way of thinking, for an electronic world to happen. And some of -- two of the three of those are already well understood. It's the third one that's the issue of the panel today.

The first one is: You have to have network connectivity. You have the have the ability to participate in the first place. The wire has to reach where you are. There's been a lot of progress in the last few years at that. The rate of growth of the Internet, which is chronicled in the lay press and the trade press alike, illustrates this point very well. It's almost growing so fast that we do not know how to even hand out the network addresses, how to hand out the identities, how to -- how to simply connect enough people up. The amount of fiber being laid and so forth is astonishing.

Yet I think it's fair to say that this is already a solved problem. There's almost no place on the planet -- in fact, I would claim there is no place on the planet -- where you can't get reasonable network connectivity already. The price is dropping like a stone, and you can just simply assume that everything will be wired in reasonable order. There is certainly a role for Congress to play in what the terms of that wiring is, but speaking as a technologist there is no question but what it is going to happen, and it's already well underway. So that's the first requirement for a -- for an electronic world.

The second requirement is you have got to have something to sell, or something to say. And I think that also is already taking place. It's already inevitable. It's already well underway. Think back. It's only four years ago that the Web came into existence, the World Wide Web and the Browser market, and think how pervasive it already is.



Or think, in a similar fashion, how long did it take after the invention of the video cassette recorder before the question was not, "Are there any movies for this?" but instead that there's a VCR -- there's a video store for every 10 square miles or every 10,000 people, whichever is smaller. It takes no time for there come to be something to sell to a new medium. And that is also true here. The -- It's easy, in other words, and this is underway.

The third requirement for an electronic world, the conversion of the...commerce that we know today to an electronic commerce, is trust or security. The security point of all of this is: If you are going to engage in real transactions for real dollars in real amounts over a wire, how do you know what's going on?

How do you know that you're talking to the right person -- the authenticity term that the Chairman spoke of earlier? How do you know that the authorization is actually present to engage in that transaction? How do you have any accountability when you're done? How do you avoid having someone later claim that a message that appeared to come from them did not, or the credential under which it took place was stolen? Or in some other way the idea that what is needed for commerce to take place is contract and for what is needed for contract is the ability to have recourse.

And the basic message I want to bring you from where I sit today is that the Congress needs to help set the rules of the game so that recourse and liability and other issues of that form are well enough understood that the game can proceed at its own pace.

We have a trusted group of individuals here from the -- direct from the front. Everyone sitting on the panel here has in some sense been a participant at the very front of this wave of conversion of the physical world to an electronic one. I think each of them bring[s] something similar and yet something different to this discussion, and I -- I know that you'll profit from hearing what they have to say.

The thing that I want to stress to you is that time runs quickly. Where I work we speak of it in terms of "Web time" or "Web years." It's sort of like dog years. Time passes at a remarkably fast clip, and if you want to lead as opposed to follow or get out of the way, there's a very limited time to do so.



I know in the commercial world we have discussions along the lines of, "If we can bring that product out in six months we'll have a killer; if we bring it out in nine we might as well not bother." Those sorts of discussions dominate the world that I live in, and I think that they illustrate the time scale at which change is going to happen.

If the Congress wishes to help set these rules before there is a substantial amount of sunk investment, before there are a lot of prior interests to reflect and to some way calculate in and to compromise with, there's a very limited amount of time remaining for you to do so.

You are, in effect, I would argue, in competition with other countries, with other entities that make law. In the electronic commerce space there is no "place" there. There is no "location." A wire leads off into the -- into the Internet. Where is the other end? In some sense it is not only independent of location, it is irrelevant of location, and you are in competition with all other entities that would make laws. And, just as there are Panamanian ships, and Swiss bank accounts, and Delaware corporations, there's going to be something similar in the electronic commerce world and the question for you is: Do you want to have the most attractive, the most compelling place for this kind of activity to take place? And my argument with you is: It will take place somewhere; the only question is, where?

So let me say that if you want to set those rules, you have a limited amount of time to do so, just as I on the commerce side, on the product side, have a very limited amount of time to actually make those products.

If you do not do so, if you do not set the rules of the game, if you choose to pass on this one, then the rules of the game will be set by some combination of other governments, trial lawyers, and the insurance industry; because somewhere the rules have to come from; somewhere, the rules have to come from. And I would request that the Congress take action in this regard as opposed to letting it happen in those other ways.

Finally, if you choose to not act, there's also the -- the very tangible risk that the choice you will have made is to export jobs instead of products -- because these -- the technology we're going to speak of here today has no way to sequester it in one locale. It travels. Everything we know is known anywhere else.



It is no longer possible to sequester an idea. It's no longer possible to ban a book. It's no longer possible to think of the Internet as anything else than Radio Free Europe on steroids.¹ And I -- And I invite you to listen to the rest of the panel here as they describe their viewpoints on this fact.

Thank you.

<sup>&</sup>lt;sup>1</sup> Nice use of catachresis