CRAIG MUNDIE

Chief Research and Strategy Officer of Microsoft Corp.

Ulysse GOSSET

Good, thank you. Craig Mundie, are you on the same page as Nathalie Kosciusko-Morizet? Would you prefer to talk about the Internet, the Internet world or cyberspace? What is your preference? In your opinion, what is cyberspace?

Craig MUNDIE

The Internet, as we have known it, is the infrastructure that has built up a global connectivity environment. However, I think of cyberspace as something beyond the Internet. What you see happening is the first fully man-made and artificial extension of virtually all the aspects of our lives. As Nathalie indicated, we have had many things through time immemorial, which exist in our current societies: culture, economy, society or security. These will exist again in cyberspace.

To me, the difference is that this is a trans-national environment. The technology does not start at a border or end at a border. Many of the issues associated with how it is going to evolve are going to be very difficult to manage. Another thing that is very different about the cyber environment, even as it extends, are physical world experiences, is that the rate at which things are happening is different. You indicated the rate at which the people of the world are essentially becoming engaged. Nathalie indicated the rate at which people can start businesses and essentially extend them. It has never been as fast as it is today.

The assets that are required in order to have this reach are less than were ever required in the past. We were commenting just before we came in here, about the new Facebook movie, *The Social Network*. Six years ago, Mark Zuckerberg was living in a dorm at Harvard and today, he has created a phenomenon that reaches the entire world.

The problem is that this is a new environment where there is a new class of asymmetric threat. Henry Kissinger, in the video message this morning, talked about the fact that the world now faces a number of challenges. These do not lend themselves to solutions by the action of any one or even a small set of the traditional nation-state actors. This is another one that, like nuclear weapons and bio-weapons, is another space which the developed world has an extremely high dependency on now.

Yet it does not take a huge amount of capability or investment to be able to create forms of attack that can be quite devastating. We are starting to see the cyber environment move from a friendly extension of our daily lives to a world which society is now critically-dependent on. We are moving from annoying denials of service as the method of attack, or viruses, into one where criminality is very high. Now, we even see the weaponisation of some of these mechanisms.

Governance is going to be a complex topic, but one that we really need to move towards. There were some discussions that we heard yesterday, for example, in the finance environment. That is a case where we can say we have a somewhat artificial mechanism, money: the movement of money, the exchange of money. This is all electronic now. The problems in the financial collapse were largely because of the speed at which these inter-dependencies are manifest. We are now going to see a whole array of these kinds of inter-dependencies.

Many of the things were discussed in what I would call the narrow domain of finance. Jean-Claude Trichet's comments were about how you had the G7, the G8 and now the G20. These have evolved on an ad-hoc basis and seem to have emerged in response to the environment. I think this may be an indicator of the kind of mechanisms that will have to be emerging to create governance in these environments. I think there are many challenges.