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**“Internet and Societies: New  
Innovation Paths”**

Check Against Delivery  
Seul le texte prononcé fait foi  
Es gilt das gesprochene Wort

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Thank you for inviting me here today to talk about the interface between the Internet and society, and the role of public authorities.

The first thing I would like to say is that this is an important topic, and I consider myself very lucky to be the Commissioner in charge of this Agenda. Just look at how much ICT has already changed our lives. Thirty years ago, "cutting-edge communications technology" meant the fax machine! Since then we have lived through a revolution of new technologies, new ways of doing things from e-commerce to social media, right up to smartphones which put a world of knowledge instantly at your fingertips.

Will this trend continue? Well, as the scientist Niels Bohr liked to say, "prediction is very difficult, especially about the future". But, this revolution, with the Internet and mobile access at its core, shows no signs of slowing down. If you take the pace of change of recent decades and project it forward, the possibilities are endless.

On the horizon, we can already see innovations like the Internet of Things, allowing all sorts of everyday objects to communicate with each other—and with you—using Internet-style connectivity.

Further ahead, others predict ICTs integrating into every aspect of our daily lives, used everywhere and for everything. Indeed it is very likely that ICT will enter our bodies, integrating into the human eye, nervous system or even the brain.

Speculating about such developments gives me pause for thought.

Because, looking at today's world, the most striking change is not just the availability of technology, but its impact on humanity. ICT radically alters how people inhabit the world, how they interact, how they perceive the world around them: indeed, it is changing what it is to be a human being in society.

Think of the awareness we have about the world around us, how it is altered and enhanced by having available multiple flows of information from multiple sources, all tailored to our interests. This extended awareness has an impact on our intelligence, our consciousness, and our society: on the very things which are fundamental to being human.

Put in these terms, you will understand why my job is so fascinating – and difficult. Because the stakes are very high; and because the change is continuous. In such an environment it is not always easy to stake out the role of public authorities; whereas citizens rightly expect us to defend their interests and deal with their concerns.

On the one hand, if we can get the most for society out of the digital transition, then our lives can be enriched. Social networking can support democratic transition and accountability. An online, virtual economy can reduce environmental burdens. And elsewhere, ICT can help meet other social challenges like providing healthcare in an ageing society, and reducing urban congestion.

On the other hand, if we get it wrong, then the technology could be a burden on society: impinging on our liberty, viewed sceptically by the citizen, unable to fulfil its potential. I mentioned before the possibility of integrating ICT into our bodies; that may be exciting in technological terms, but also raises a host of ethical issues and concerns around privacy and individuality.

To get the balance right, public authorities need to look at well-aimed, specific actions which can draw out the positive social benefits of ICT.

As we make the transition to a digital society, we must be guided first by the concerns and expectations of society. And then identify where public action can make a difference. There are five areas I'd like to mention today.

First, remember that human beings are social beings. The success of mobile phones shows how highly prized it is to be able to keep in touch; because, after all, communicating is a basic human need. That is why I consider that functional internet access must be a universal service, and why access to broadband is at the heart of the EU's digital agenda.

Over time, ICT will become ever more pervasive, mediating ever more forms of communication. Not just another way to find entertainment or buy products, but providing essentials like education, health, employment, and engagement with the democratic process. When that happens, those who cannot access technology won't be able to access opportunity, to engage properly with society, even to maintain their dignity as social human beings.

Two things follow. We don't want to shut anyone out: so we will need to guard against a socially undesirable "digital divide" between those who do or don't have Internet capability. And, if vital services - like healthcare - are involved, we will need to ensure even more that the system is safe, secure and reliable enough to maintain connectivity – and avoid potentially life-threatening situations.

Second, we must ensure that the digital transition preserves and enhances European core values. Values like democracy. As I said to the OECD recently, Internet-based tools can foster democratic life, for example by providing platforms for discussion and collective action. And the same goes for rights and values which we Europeans hold important, like diversity, freedom, privacy and the protection of children. For me it is an imperative that we develop such tools, if the Internet is to maximise its potential.

Third, we must ensure that Europeans benefit from the digital transition, through better quality of life. By that term I don't just mean increasing wealth and providing jobs. But also improving health, education, social integration, satisfaction in work and family, and all the values that make our lives meaningful and worthwhile. The global, open innovation ecosystem which ICT can create helps everyone get involved in developing solutions to improve quality of life. And to achieve such an ecosystem, many policies and principles will need to play their part: intellectual property rights, the digital single market, fair competition, radio spectrum policy, net neutrality, and so on.

Fourth, we need to ensure people are not caught in a web of complicated legal and commercial issues each time they transact on the Internet. How many people actually want to read to the end of the "terms of use" for each and every new service or piece of software? Whereas how many would rather just be able to click that they accept, and know their rights will be protected? In the online world, public authorities have a role to play, standing side by side with consumers and ensuring that, by default, commercial conditions broadly match consumer expectations. Of course, we need to preserve entrepreneurship and open markets; but the Internet also needs consumer confidence to unlock its potential.

Finally, in order to deliver all of these four things, we must ensure that Europe's voice gets heard on the global stage. So that the functioning of the global digital society takes account of European concerns, including social and environmental.

I will say again, in many respects the future of ICT is unknowable. As such, public authorities cannot always set out in detail how they might react. But we have to know where we want to get to, and these principles can help us to orient ourselves. We have to be aware of the potential of the sector, and of the risks. To properly balance these, we have to take a holistic approach, combining social, economic and environmental perspectives.

Take for example how we identify and prioritise ICT research.

If we want ICT to have the right kind of impact on society in the future, to help us build a society which is environmentally and socially sustainable, then research programmes need to take social and environmental factors into account.

This means considering not just technology and the physical sciences, but also human behaviour, and all the things which make us human, like art, ethics, and politics. New products will only succeed if they meet the demands of real people. This is why our research agenda should be multidisciplinary, focused not just on computer science or telecommunications, but integrating psychology, sociology, anthropology and so on.

But it is more than just adding disciplines in the research mix. Einstein once said, "No problem can be solved by the same level of consciousness that created it". ICT offers an extended consciousness that will allow us to address many of society's challenges in innovative ways.

The Internet can connect people, across cultures and across continents, and empower them to build new solutions to make lifestyles more sustainable, and the world more democratic. These solutions can be all the more powerful if they come neither from government nor industry, but from the grassroots of society itself.

Government's role should be to support these initiatives and help empower society in articulating its own answers to societal challenges. As an example of this exploration, I welcome the dialogue on the concept of "platforms for collective awareness and action", which can enable citizens and communities to take informed and direct decisions about how to make their lifestyles more sustainable.

I congratulate Paradiso and the Club of Rome for their original, multidisciplinary approach towards ICT and sustainability. This work shows that, while we cannot know the future, we can prepare for it. We can be sensitive to the opportunities and risks which ICT offers. And we can together build a more sustainable future.

Thank you.