

SCIENTIFIC EVENT

Reflections on the Information Society *

George Metakides

Dear President of the Romanian Academy, Dear Members of the Academy, Dear Friends,

It is a great honour to receive this Diploma from the Academy and I thank-you.

It is indeed a great honour. First because it is bestowed upon me by the Romanian Academy, an institution with a long and illustrious history. Secondly, and in a more personal sense, because I feel bound to this country, its history and culture by strong and ancient bonds.

The Early Days: Together with a love of this country, I also shared with many distinguished members of the academy, notably Presidents M. Draganescu and N. N. Constantinescu, together with Vice President F.G. Filip and their close collaborators in the scientific community, 10 years ago, a belief that the Information Society had a critical role to play in the economic and social integration of the CEECs in the EU. In those early days of European integration, when no formal framework for co-operation existed, and at a time when the Information Society as we know it today was only a sparkle in our eyes, we worked together to move both visions forward, through joint workshops and with, in 1992, the launch of the INCO-COPERNICUS Programme.

A lot has happened during the last decade of the development of the Information Society. But irrespective of recent spells of euphoria and despair in the stock markets, and of severe business and financial hurdles, I am convinced that “we haven’t seen anything yet” and that the last 10 years are the first 10 of the next 100. We are at the very beginning of the Information Society. The new phase we are entering will see a composite revolution as ICTs integrate with biotechnology and the life sciences as a whole.

Technology & Skills: The pace of technological advance will continue to gallop, throughout the next decade at least, under the so-called ‘exponential laws’ (e.g. Moore’s Law), with computing, communication and storage capabilities doubling every 18, 9 & 12 months respectively. The next performance landmark will be the ab initio simulation of protein folding in real time, 20msec, rather than in the current 40 months.

To translate these advances into new applications and services, we need a generation of people having skills which are not yet readily available from, or easily provided by, existing education systems. The first adjustment needed is to extend the basics, be that either as a scientist or as a citizen in the information society, to include the skills needed for digital literacy. The next is to provide the scientists of the 21st century, whatever their field, with the broader portfolio of skills needed: skills for handling the micro- & nano-world and for controlling the tera-world (that of large, complex systems) and skills from the underpinning domains of cognition and computation. Great academies such as this provide the fora in which the multiplicity of disciplines needed can cross pollinate.

Bridging the Divides: The gap between rich and poor, between developed and undeveloped regions of the world, is not a pretty picture. Technology itself is neutral, it did not create the gap, but its deployment need not be. It is up to us to ensure that the great potential in Information and Communication Technologies for empowering and enhancing the capabilities of the individual is used to close the gap.

At the same time, there is another gap to be closed, one that is more hidden and, perhaps, more insidious. As technology gallops, human beings remain ancient, multi-faceted creatures. The enlightenment, some 300 years ago – perhaps unnecessarily, perhaps accidentally – separated technology from humanism and from spiritual values. As humans, we continue to reason – yes – but also to love and to admire & be awed by all that transcends our rational understanding. So now, as we both observe and try to influence technological evolution, it is perhaps time to see how to reconcile it with our social, cultural, spiritual or humanistic being. It is up to us to re-integrate all these different aspects in our individual lives, in our society and in our education systems. It is in the academies where the first seeds of such a reconciliation could be germinated.

A New Phase: The Romanian Academy can justly be proud of its contributions to the process that has brought us to where we find ourselves today: in a couple of months, the launch of the new IST Programme, part of the EU’s 6th Framework Programme for Research & Technological Development,

will see Romania and the other Accession Countries as full and equal participants. In the same way that we are entering a new phase in the Information Society so too are we entering a new phase in European integration, one that by the end of the next decade targets Romania as a member of the European Union. I am sure that the Academy under President E. Simion will continue to play a major role in realising both visions, of the Information Society and of Europe.

Finally, I would like to express again my gratitude for this Diploma that honours me very much and I hope to continue to be close to this academy and this country which I like very much.

** Prof. G. Metakides, the Director of "Essential Technologies and Infrastructures" within "Information Society" Directorate General of the European Commission, was awarded with the Diplom Honoris Causa of the Romanian Academy for his contributions to the promotion of the Information Society. The Ceremony took place in Bucharest on 10th of October 2002.*