

2nd IT STAR Workshop, Genzano di Roma, 26 May 2007

Keynote by Bruno Lamborghini

Good morning Ladies and Gentlemen,

It is a great pleasure and honour for me to open the Second IT STAR Workshop here for the first time in Italy.

This is also my first participation to IT STAR in my very new position as Chairman of AICA. As AICA and myself I wish to express to all participants a warm welcome to Italy and best wishes for a constructive work.

Being also the Chair of the EITO, the European Information Technology Observatory, since 15 years I am fully convinced of the relevance of sharing ideas, initiatives and concrete co-operation especially between the new EU members and the old ones.

During past few months the ICT industry has entered into a new technological cycle driven by digital convergence and full diffusion of the Internet as the main architectural network based on the IP standard for all communications channels and open to new applications under the label of the so called Web 2.0.

What is completely new is its global diffusion: the new cycle is now covering at the same time all areas of the whole planet, with a special impetus coming from India and China. And as a second relevant factor, it will not be limited to a specific industry, but it is reshaping worldwide many industry sectors.

According to the OECD, the world ICT market in 2006 has reached 6% growth rate driven mainly by the so called BRIC countries (Brazil, Russia, India and China) with annual growth of more than 20% since 2000, being China the world leading ICT exporter and the sixth world major market for ICT.

High growth has been shown also by new EU member states (more than 7% as an average, but with IT growth around 12% in some countries).

The Internet pervasiveness in terms of world web addresses (url) has doubled in two years time from 50 to 100 millions, while world web users are now substantially more than one billion with most of new users coming from new emerging markets. (One mobile subscription every two people of the planet 2.5 billion cell phone lines), 200 million DSL lines, 100 million 3G lines at world level in 2006 with endless expectations.

We are seeing every day more the extraordinary diffusion of DSL technology in the wireline telecommunications networks, of Third Generation technology (UMTS and HSPDA) in the mobile networks with an exponential increase in bit rates and the new opportunities opened by the developments of wireless technologies such as WiFi and WiMax.

The digital convergence scenario moves on rapidly based on a common standard, the Internet Protocol while Internet is entering a new life cycle (Web 2.0) as an infinite grid of

shared exchanges of self produced-self distributed content on a Peer2Peer (P2P) basis (as shown by the examples of My Space, Youtube, all the blogs, pod-casting and social networks communities).

In a recent book I defined the impact of the new technological cycle on the economic development as the Digital Sharing Economy, which means totally new ways and new business models in exchanging information, content, services and also physical products, with dramatic changes in all value chains and industry structure.

New business models, new players are appearing every day more: let us consider the entrance of supermarkets and retail chains or large consumer brands into the telecommunications markets through mobile virtual networks and VoiP. Traditional industry borders are under strong competitive pressures from new players. M&A are changing the value chains.

In the European Union we have today a tremendous opportunity to take advantage of our common assets and cultural values and through them to participate to a new world phase of development not in a passive way but using our cultural and social values to help reshaping the future path of economic and social progress, quality of life and sustainable trade-off of resources and needs.

We have entered a phase based on new value added services, intangible goods, personal interests, new communities, knowledge sharing, new interactive organisations, the so called Knowledge Society where all people of the planet can communicate each others, can have access to all information and cultural heritage, can potentially chose their lifelong learning program.

It is no more utopian try to move in this direction, following what internet is freely proposing based on the contribution of each of us.

If it has been possible to create in few months a dynamic and powerful encyclopaedia-like Wikipedia built every day through hundred of thousands of individual contributions, in a sense we can say that there are no limits in the process for building a global Knowledge Society.

At the same time we have to say that this is not a free lunch. We have obstacles, self-defence of traditional borders and interests, conservatorism, closed and protected niches looking more to the past than to the future.

And even risk of cultural conflicts: the new global and technological environment is rapidly changing borders, both at national and industry sectors level, transforming jobs, professions and labour markets, rapidly obsolete educational systems, increasing risks of a generation divide, risks of economic and cultural domination by high growth areas vs limited growth areas.

We cannot sleep, We have to take initiatives.

On the European side in the past few years we have experienced a period of sense of weakness in terms of competitiveness and growth in the new scenario.

Now things are changing, partly due to the new blood coming from the new EU members who are revitalising old Europe.

There are now in the EU favourable opportunities to exploit, taking advantage of the extraordinary widening of broadband lines both wireline and wireless by business and household users, the number of large European firms and new entrants in the digital arena and the strong and sometimes unique innovation capacity and creativity of many European players.

Advanced innovative telecommunications infrastructures, 65 millions DSL broadband lines end 2006 (one third of the world total), expected to double before 2010, 800 million mobile lines (150% penetration rate or more than one and half line for every European citizen), 300 million Internet users: they all represent strategic assets on which to build for Europe a competitive role to play in the new global environment.

Since the beginning of mobile communications, Europe has played a major role, reaching very high penetration rates in an area which represents the most challenging market open to new digital applications and services, with integrated mobility access becoming the most relevant requirement for all users.

New wireless technologies and advanced file sharing programs like VoiP have been developed and launched by European entrepreneurs while the number of M&A and IPO in the ICT and media industry has taken off in Europe during 2005 and 2006.

But also because we feel better our opportunities and we understand the potentiality of our assets in a scenario which is based on knowledge, research, education, culture, intangible goods, quality of life, physical resource saving, environmental protection, economic sustainability, social progress, health care. Especially if we compare our potential and current assets with those of other areas.

In my introduction to the EITO Report 2007 I stressed the wake up of Europe in the ICT market after many years of uncertainty:

- new strong development for the demand of software and IT services,
- new start-ups and mergers and acquisitions,
- innovation in broadband communication services, specially mobile networks,
- strengthening of research co-operation between industry and universities also with the support of the increased funding of the 7th Research Framework Program of the EU Commission.

We have in front of us an expected long phase of economic development which has to be strengthened through common efforts towards common objectives at European level.

A main source of concern and risk of dangerous gap is related to the scarcity of skills required in this new scenario.

The so-called e-skills represent the real strategic asset for strengthening Europe and becoming a real Knowledge Society.

So, the target of this workshop is perfectly focused on this issue: we need to investigate problems and challenges of the ICT-related high education and the interplay between universities and the ICT industry and utilisation in Central, Eastern and Southern Europe.

There is a strong need to give to policy-makers in Europe the right requests to speed up the change in education, to increase investment of the universities for preparing the right skills, we need in Europe to prepare every year hundred of thousand engineers, in physics, in mathematics, in informatics, in nanotech, in biotech, starting from the secondary schools.

We know well what is going on in Asia where hundreds of thousands of engineers, mathematicians and informatics professionals are created every year.

We need to certify at European level professional preparation in ICT as it is done through the EUCIP certification, which can permit an harmonised and dynamic approach to the preparation of new e-skills.

In AICA we feel very strongly this need to proceed rapidly in closing the skill gap.

AICA is Italy's most prominent association in the Information Technology area since 1961 with primary focus on the development and promotion of all aspects of ICT in the Italian society favouring co-operation between universities and research centres, public and private organisations, manufacturers and vendors of ICT.

AICA through its participation to international institutions like IFIP and CEPIS and also as founding member of the IT STAR is responsible for development and management in Italy of the European Informatics certification such as the European Computer Driving Licence (ECDL) with more than 1.2 million registered candidates, 2700 test centres and 100.000 tests monthly performed and the EUCIP (European Certification for Informatics Professionals and also e-citizen program, for training citizens with limited understanding of computer and access to internet.

AICA has obtained clear recognition by various institutions and co-operation with ministries, regional authorities, universities.

A project called IT4PS (Information technology for problem solving) has been launched between AICA and CRUI Foundation (the Italian University Chancellors Conference) involving several Italian Universities with main goal to support and enhance the acquisitions by students of advanced skills in the usage of productivity tools to solve daily problems in various University curricula (Economics, Medicine, Statistics, etc.).

At the same time AICA, together with CRUI and CINI (Italian inter-university ICT consortium) launched the EUCIP4U for introducing EUCIP into Italian universities.

All these projects confirm the full engagement of AICA in co-operation with the Italian Universities to widely diffuse IVT in the University programs. Today Prof. Nello Scarabottolo will give you more details about these initiatives.

I want also to remember that AICA in co-operation with the Italian Bocconi University started an extensive project to evaluate the social and economic costs due to the lack of IT skills called the cost of IT ignorance (evaluated in Italy around 19 billion Euro per year).

From the recent EUCIP Conference 2007 held in Rome last April it appears that AICA is leading the process of ICT skills harmonisation in Europe.

I want to mention also a study from CEPIS on Thinking ahead on e-skills for the ICT industry in Europe which shows the strategic relevance of employing new e-skills in Europe in order to face the new scenario.

According to this study there is in Europe a need by 2010 of more than 250.000 ICT skilled people with the risk of not being able to cover at least 70.000 of them because of not enough adequate qualification and certification.

The analysis done by the EITO Report confirm the gap in ICT skill preparation in Europe, but underline also another very risky gap in the so called e-business skills that mean effective competencies in using Ict and web technologies for business applications and for e-government applications.

The e-business skills require to converge ICT competencies and managerial and organisational competencies in order to reach an effective integration of ICT and the web into the organisations or better the diffusion of technologies for complete reorganisation of firms and institutions.

This gap can have dramatically negative impact in reaching improvement in productivity and competitiveness and is particularly dangerous for the SMEs.

As shown in many US cases and in some European cases there is clear evidence of strong improvement due to reorganising a company around the net internally and externally, widening the integration of intranet and extranet towards the company ecosystem with various stakeholders,

The lack of e-business and ICT skills at country level can risk to lose 1% of the GDP.

In EITO we have also examined the risk of not investing in ICT skills in Europe due to the transfer of software development and research in offshore areas such as India (and possibly also with the risk of a brain drain from Europe to Asia).

Consequently there is a urgent need to invest in Europe for the right e-skills with special reference to the university and close co-operation between public and private organisations with universities.

According to Eurostat main sources for preparing ICT skills in Europe are non formal learning processes, but mainly learning by doing, self-education, informal training.

Not so many industrial companies have a formal ICT training program.

There is also in major European countries a declining perception of job perspectives coming from ICT and Internet specially after the Net financial bubble explosion of 2001. I believe that is less true in Central and Eastern Europe where the interest for ICT jobs is stronger.

For all these reasons there is a need to converge on the issue of focusing on ICT related education systems all over Europe, having clear the target of defining and jointly agree on ICT and e-business professional profiles

integrating the national schemes for classifying the educational profiles in the universities such as SFIA in UK, Aitts in Germany, Borsa Lavoro in Italy, having Eucip competence centers as points of reference.

Furthermore, ICT and web technologies have to be considered as main enabling technologies for the preparation of all professions and in all industrial and social activities.

Universities, secondary and high schools should refocus their education programs around these enabling technologies and redesign new partnerships with industry and public services for the dynamic preparation of the right skills in a permanently changing environment.

So, to conclude, I thank very much the IT STAR organisers of this workshop for having proposed such a strategic theme.

Thanks to the new energies coming from Central and Eastern Europe participants, I am sure the workshop will produce concrete proposals for helping to fight against the e-skill gap in Europe and give stronger impetus for an effective participation of Europe to the new challenging scenario.