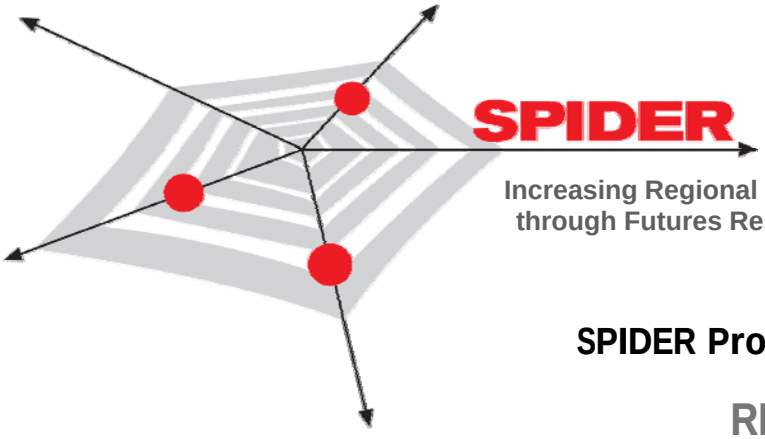

Increasing Regional Competitiveness
through Futures Research Methods

REGIONS OF KNOWLEDGE

SPIDER Project Closing Conference

RETHINKING REGIONS - IMPROVING REGIONAL PERFORMANCE IN THE KNOWLEDGE SOCIETY

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Transition from the information society towards a knowledge society

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Introduction: Foresight & governance of the Internet

In March 2005, the Destree Institute has organized an international conference "**Foresight of the Internet**", considering "**Digital networks as structuring tools for the Knowledge Regions**". The debates were structured in three sessions: Technologies for the Information society, Human resources towards the Knowledge-based society, and Transversal issues of Internet governance.

The results of the debates constituted a contribution to the **World summit on the information society** (WSIS) and to the **Working group on Internet governance** (WGIG). After the WSIS second phase in Tunis, we now participate in the **Internet Governance Forum** (IGF), all this process organized under the auspice of the Secretary general of the **United Nations**.

A **book** has been published by the Destree Institute, honoured by a preface by Mrs Viviane Reding, Commissioner for Information Society and Media, and a postface by Mr. Markus Kummer, Executive Coordinator of the Working Group on Internet Governance. Special contributions are also presented about technologies "IPv6 Roadmap" by Latif Ladid (IPv6 Task Force) as well as about content, “Culture, Creativity and the Internet, Continuity and Change” by Kim Veltman (System for Universal Media Searching).

A **DVD-book** published in collaboration with ISI-Ingénium in Caen proposes, in French and in English, a structured summary of the conference and a booklet with three contributions about "**Internet governance and the WSIS**" (Marie-Anne Delahaut, The Destree Institute, Namur), "**30 years of Internet**" (Philippe Lequesne, Centre des Technologies nouvelles - CTN, Caen) and "**Which technologies for tomorrow**" (Jean-Michel Cornu, Next Generation Internet - FING, Paris).

Those publications, presented online (www.wallonie-en-ligne.net/2005_Prospective-Internet/index.htm) are exactly **in phase with the subject of this SPIDER Project conference**. Work goes on about these important concerns of "**Foresight & governance of the Internet**", as the process of the WSIS and of the IGF invites the multi-stakeholders to implement their goals no later than **2015** (WSIS outcome documents: Declaration of principles; Plan of action; Commitment of Tunis; Agenda for the Information Society, www.itu.int/wsis/index.html - Internet Governance Forum, www.intgovforum.org/).

My vision of a region of knowledge in the information society

The question is "**What should a region of knowledge ideally look like in 15 years from now?**". Let me answer to it with three points of view including the Information & communication technologies (ICT) tools, their management and the competencies they should provide to their users. The word "ideally" will eventually be applied to that analysis as a conclusion.

1. Technologies development
2. Governance of the internet: accessibility, transparency, democracy, multilateralism and legitimacy
3. The human being as centre of the networks

1. Technologies development

Invented about thirty years ago, the concepts leading to the internet we use in 2006 continue to develop in many domains. New tools and applications are in preparation, some of them being commercialized in Asian countries as Japan, which has developed its own very broad band and futurist networks capacities. Some of those new tools were presented in Geneva and in Tunis during the WSIS. Nanotechnologies are used to develop miniature and very light servers, special glasses acting as screens to project data, connected to micro sized processors, commands activated by voice or by the special tools associated to the new generation watches, portable phones configured as real computers, tremendous storage capacities on a single chip,... Those new tools could than be virtually connected to any screen or keyboard available anywhere, for anybody happy enough to possess them. In the paper "Which technologies for tomorrow, Jean-Michel Cornu wonders if "tomorrow's supercomputers will simply consist of a stack of smart cards communicating together via high speed wireless networks?".

ICTs now allow the convergence of data, images and voice, as a new reality related to culture, movies, music, games and even books. They are developing through web-internet telephony, satellite connections, internet tools working on television, optical fibres and cable networks, high power Wireless networks (WiFi), but also peer-to-peer technologies and new "express toll lanes" alongside the internet's existing highways along the intercontinental backbones. The data rate transmission, that was around 60 kilo bits par second on our old modems is now of around 24 mega bits per second for a home ADSL connection and goes up to 160 Terabits (over one hundred thousand billion bits) per second through optical fibres.

Distance is not important anymore between the place we connect and the service provider. Anytime anywhere is the new rule of the ubiquitous Internet. The Telephone or Internet service providers tend to gather in large monopolistic societies to become powerful operators, leading our societies to become dependant of their architecture and putting the global network at risk of losing its neutrality.

2. Governance of the internet: accessibility, transparency, democracy, multilateralism and legitimacy

ICTs developments introduced in our daily life have changed the way we think and behave around the world. The interest in establishing Internet governance arose when e-commerce began to take flight, in order to regulate payments and electronic signatures, online administration and data protection.

However, the citizens of the world have a different view of Internet governance depending on where they live, the language they speak and the government that regulates their communication with the rest of the world.

- How should communication via ICTs take place?
- How should we handle freedom of expression?
- How should we make private data secure?
- How to assess intellectual property and authors' rights?
- How to protect users from spam and unsolicited messages?
- How can we help to bridge the gender divide in order to empower Women in Decision-Making: Meeting Challenges, Creating Change (Theme of the International Women's Day 2006, United Nations Headquarters)?
- How should we protect children from illicit or harmful content?
- How should we develop ICTs so as to promote education and democracy for the greatest possible number of people?
- How to take up and bridge the many digital divides?
- How can we ensure the futures of the digital network?

Reinforcing the solidarity of an open and sustainable information society should lead to a more humane and more inclusive knowledge society, based on the sharing of knowledge and upholding the Universal Declaration of Human Rights and the Charter of Fundamental Rights of the European Union. The application of these principles concerns all the stakeholders and will tend to narrow the digital, social, cultural and economic divides.

The European Commissioner for Information Society and Media Viviane Reding, presented an important contribution in Tunis about theses questions. The programme **i2010** proposes new ideas to implement "the reality of convergence as a technological challenge, a regulatory test and source of growth", in order to create **a "single European information space"** (Viviane Reding, *Convergence and governance*, First Magazine, Tunis, November 2005). As everywhere in the world, ICTs in Europe are very important to improve **health care, education and learning, egovernment and environmental quality**.

3. The human being as centre of the networks

The process of the WSIS has highlighted the power of mobilisation of citizens of the world over ICT : nearly 19.401 people gathered in Tunis in November 2005.

The official documents presented as results of the WSIS insist on many concerns in order to bridge the digital divides:
- **Gender**, to include Women in the ICT world and in decision-making at all levels;
- **Persons with disabilities**;
- **Education and life-long learning** in ICTs;
- **Universal primary education**;
- **Youth**, in order to find the means to eradicate war, poverty and unemployment, of which they are the first victims;
- The use of **open software**, **open source e-publishing** and **free access to libraries**;
- Legislation on **intellectual property**;
- **World peace**, to prevent the harmful contamination of the Internet by xenophobia;
- The **environment**, to ensuring a sustainable impact at all levels, including water, health, resources, etc.;

- **Ethical values**, in respect for human rights, family, privacy, religions, cultures and languages;
- **Life and health in the world**, with new partnerships made possible thanks to ICTs;
- **Freedom of opinion and expression**: should be strengthened and preserved without fail;
- **The media**: values and traditions should be respected; the media should contribute to social cohesion by identifying the issues of sustainable development for social cohesion, with respect for ethical rules and human rights.

Joan Dzenowagis, Project Manager in charge of e-Health for the **World Health Organization** (WHO), in Geneva participated to the Foresight of the Internet conference in Namur. She has just published the *Report for the WSIS, Connecting for Health, Global Vision, Local Insight*: it shows that many **Millennium Goals** are related to the harmonious development of ICT :

1. Eradicate extreme poverty and hunger;
2. Achieve universal primary education;
3. Promote gender equality and empower women;
4. Reduce child mortality;
5. Improve maternal health;
6. Combat HIV/AIDS, malaria and other diseases;
7. Ensure environmental sustainability;
8. Develop a global partnership for development.

4. Conclusion

Introducing this panel, M. Corpakis, Head of Sector Regional Aspects of Research Policy at the DG Research, presented the European outcomes to create synergies, to enhance capacity building and to gather joint analysis of different research agendas. We fully agree with those guidelines.

The society of information exists and should be accessible to every people of the world. What is illegal in the usual world is also illegal on the connected world: citizens expect measures to be take in order to deal with spam, hacking, violation of data, fraud and all forms of cyber-crime. Governments should deal with those important problems and ensure the stability and the security of the communication networks at national, regional and local levels.

Cooperation should be organized between all the stakeholders in order to reach the goals of the Tunis Commitment and the Agenda for the Information society. Learning regions need to cooperate in the process, by mobilizing their possible collaborations between governments, civil society, private sector, universities and research centres:

- **Freedom of expression and ethics** must be preserved everywhere;
- **Coordination tools** should be developed to connect every partners of the society, with a particular attention for women, young people and disabled people, in order to inform them and to understand their real needs;
- **Linguistic and cultural diversity** should be an important goal to adapt the ICT tools towards an inclusive knowledge society;
- A **quality e-learning and training for young people** as well as **life-long learning** should be implemented at all levels of society to favour employment, in respect with democracy, human rights, opinions and competencies of every participants;
- A **dynamic promotion** of these actions should be organised in cooperation with all the partners;
- **The medias** should help to promote those projects by all traditional and digital ways, with a particular attention to children and young people.

The information society is not better than the industrial society. It is not a goal as such, but a tool that can help to build a knowledge society: it is our responsibility to develop a model, inclusive and democratic, in order to reach an information society for all in 2020.