



n e w s l e t t e r

Issue #1 (May 2009)

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1. Editor's note

Welcome to our newsletter, the first of what I hope will be a regular series that will overview our current research activities.

Working in IPTS is a refreshingly new experience for me since I moved from Directorate-General Information Society and Media (DG INFSO) in the summer of 2008. Over the coming months we plan to overhaul our web presence and introduce new collaborative tools to enhance our research capabilities. Get in touch with us if you want to be part of our community of scientific associates that includes eminent sociologists, economists, technologists and policy analysts that contribute to and review our Information Society policy-oriented research activities.

By reading the short paragraphs below you will find out about our research programme for 2009. Please feel free to [contact us](#) and find out more about our work.

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2. Ongoing research activities

The IS Unit constantly monitors the development of Information and Communication Technologies (ICT) in order to assess their potential impact on the future Information Society. Its goal is to identify policies that impact positively on economic growth and help create an innovation-friendly environment by understanding how digital technologies are likely to affect the way of life of individuals. It also aims to support the overall formulation and implementation of information society policies and actions contributing to a competitive and innovative European information society.

ICT R&D and innovation, the competitiveness of the ICT industry, digital applications and emerging technologies for health, mobility, inclusion, learning and education, and sustainable development are the specific areas in which the IS Unit is carrying out prospective studies.

SOCIAL COMPUTING

One of the major projects undertaken by the IS Unit in 2008 has been exploratory research on social computing. A report on the [creation, uptake and usage of social computing](#); a case study on [collaborative content](#); and a case study on [social networking sites](#) have resulted from this project and also an [article](#) focusing on the social aspects of social networking sites. The final results of the exploratory study and the final workshop have been documented in workshop [report](#).



LEARNING

In the area of [ICT for Learning](#), the IS Unit has continued to work on the national report series on the development of eLearning in the EU10 Member States, with recent reports on [Cyprus](#), [Malta](#), [Poland](#), [Slovakia](#), and [Slovenia](#). Policy briefs on [Digital Competence for Lifelong Learning](#) and [ICT for Learning, Innovation and Creativity](#) have been prepared to summarize messages from recent studies for these topical themes. Studies on social computing for learning have been progressing, with [Learning2.0](#) study on web2.0 innovations in organized education and [Learning Communities](#) study on pedagogical innovations in unstructured

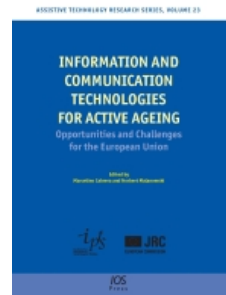
online community settings. Furthermore, a new study on [Creativity and Innovation in Education and Training](#) in the EU Member States was launched at the end of 2008.

HEALTH

Our [study](#) on the opportunities and challenges of Web2.0 for health explores usage of blogs in the health sector. We have also looked at the potential of social computing in biomedical research in rare diseases. This work led to a presentation at the International Conference Medicine 2.0, which was published in the [conference proceedings](#).

In the field of health and quality of life, the Unit is assessing the market and the innovation dynamics for personal health systems targeted at out-of-hospital care. We are also concluding a report on scenarios for the healthcare system in Europe on a horizon of 2025.

Previous IPTS work in the area of ageing, with a focus on the role of ICT, has led to a publication of a [book](#) which explores the contribution ICT can make to quality of life for older citizens in Europe.



IMMIGRANTS AND ETHNIC MINORITIES

The Unit has promoted and supported various research projects on the adoption and use of ICT by immigrants and ethnic minorities (IEM), as well as initiatives by public and private actors addressing this issue. An example of our work is the support provided to DG INFSO's e-Inclusion Unit at the [Vienna Ministerial Conference](#) on this topic. One study which has emerged from this work addresses how ICT adoption and use by immigrants and ethnic minorities affects their social and economic integration and participation in Europe. This has resulted in a [report](#) which presents the results of the study's first step, an overview of about 120 ICT-based initiatives carried out for and/or by IEM in all the EU27 Member States. The work in this field has also resulted in a contribution [chapter](#) to the renowned eEspanya 2008 book which provides an annual overview of information society trends in Spain. Also, a thematic network on ICT for social

integration and cultural diversity [Bridge-IT](#) has recently been launched. Bridge-IT will analyze good practices, produce guidelines and assess the feasibility of extending good initiatives to different EU countries.

COMPETITIVENESS OF THE ICT INDUSTRY

ICT markets are exposed to a much more rapid cycle of innovation and obsolescence than in most other industries. At the request of the European Commission's Directorate General for Enterprise and Industry, the IS Unit is analysing the future competitiveness of the EU ICT sector in high technology domains. Of particular interest are those technologies that are expected to have a disruptive impact on business models and market structures.

In 2009, dedicated studies will allow a deeper understanding of the competitiveness of EU industry in specific domains, such as web2.0, displays, RFID, games software, automotive embedded software, and robotics. Two workshops will be organized in the spring of 2009, on displays and RFID (see Upcoming Events).

ICT R&D

The Unit's work on ICT R&D is the first attempt to analyse European ICT R&D in a global perspective in a comprehensive manner by combining several complementary perspectives: national statistics, company data, and technology indicators.

The first comprehensive overview of available data on European ICT industry R&D spending has been published in a recent JRC Reference Report: [Mapping R&D Investment by the European ICT Business Sector](#). This report shows that the ICT industry based in Europe is the largest R&D-investing sector in the EU economy, contributing 26% of total business expenditure on R&D (BERD), ahead of the automotive and pharmaceutical industries. Nevertheless, the EU ICT industry spends some 50% less on R&D than its counterpart based in the USA. This differential in



the ICT business sector R&D accounts for half the overall R&D investment gap between the EU and the USA. This research was undertaken in the context of the PREDICT project at the request of the European Commission's Directorate General for Information Society & Media. The report was first presented at ICT 2008, Europe's largest event on ICT research, held in Lyon in November 2008. This report is the first in a series. Future reports will aim to measure EU ICT R&D performance vis-à-vis other leading world economies. A presentation of the work in the PREDICT project with alternative interpretations on the causes of the EU-US ICT R&D investment gap was made at the [conference](#) "Knowledge for Growth: European Strategies in the Global Economy" held in Toulouse on 7-9 July 2008.

In 2009, the work on this line of research will provide further insights on ICT R&D internationalisation and prospective.

EMBEDDED SYSTEMS IN THE AUTOMOTIVE SECTOR

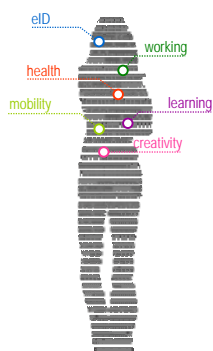
The IS Unit is launching a series of studies to explore the value chains, European competitiveness and economic value of embedded systems in the automotive sector. These studies are a follow-up to a long standing effort by the Unit to develop a methodology for measuring the economic value of embedded systems in the whole economy. A report on this methodology is expected to be issued during the first semester 2009. It will offer groundbreaking views for analysing the technological density of the European economy, ICT-enabled innovation and its economic value.

MOBILE COMMUNICATION

In the field of mobile communication, the Unit is studying the evolution of the mobile application and [content](#) sector. The team is currently looking at convergence between the mobile platform and augmented reality technologies to identify emerging mobile services which may have a disruptive impact on society, and studying the innovation dynamics that would lead to a market for such services. In the same field - within the European project [CHORUS](#) - the IS Unit is also conducting a study on the evolution of mobile search.

eIDENTITY

The IS Unit is further engaged in the study of the social, economic and technical aspects of identity to assist in policy formulation for the 2020 ubiquitous information space. Having conducted a [study](#) on young people's motivations, perceptions, and acceptance of risk with respect to emerging digital services, the Unit continues to work in this field to propose identity-market enhancing policy options. The team is currently identifying and assessing innovative identity applications and evaluating the impacts of emerging technologies in the presence of increasing industry consolidation and user-producer convergence.



conditions and the incentives required to initiate and motivate widespread behavioural changes which would accelerate the intelligent deployment of ICT for access to knowledge, efficiency, versatility and mostly growth and jobs for the EU. The study is looking at barriers to innovation and the negative implications for society, so as to be able to help formulate a consistent strategy for the definition of appropriate actions, incentives and rewards.

ICT & SUSTAINABILITY

Finally, the IS Unit has recently launched a study to explore the enabling potential of ICT in the context of sustainable development to analyse the gap between potential benefits of ICT use and evidence of actual efficiency gains. This research aims to define cases of ICT-enabled services which have transformed the way end-users carry out their activities, assess the impact of such services on the carbon footprint, and identify current market dynamics, drivers, and barriers. The study will also survey the awareness among businesses about the offer of such services and their likely socio-economic impacts, so as to identify barriers to innovation diffusion and drivers for the take-up of these services.

INNOVATION PROCESSES

The Unit has launched an exploratory study to analyse the role of ICT in the evolution of innovation processes. The goal is to understand the

3. Recent & upcoming events

Recent Events

Creativity and Innovation in Education and Training Scoping Workshop

In the context of the year of Creativity and Innovation in Europe, the IS Unit organised a workshop to discuss the scope of a new project which will address creativity and innovation in education and training in EU Member States. The minutes and a short description of this project may be found [here](#).



TransEuropa Workshop

A workshop was held on 11-13 March 2009 at IPTS in the context of the "TransEuropa" project, as the first step of an analysis of the drivers and scenarios

of change for the European economy and the contribution of ICT to such changes.

Bridging Micro & Macro perspectives for the analysis of ICT related Innovation and Performance

A workshop took place in Seville on 26-27 February, gathering experts from the JRC, the OECD, Eurostat, DG EC FIN, Banque de France, National statistical Institutes and the Academia. The presentation of transnational analytical projects was combined with discussion of relevant policy research needs and methodological issues. A report is being drafted, and will be available in the coming weeks.

EuroCPR Conference

The European Communications Policy Research (EuroCPR) was hosted in Sevilla by the Regional

Ministry of Innovation, Science and Enterprise of Andalusia and the IPTS from the 29-31 March. The conference aimed to facilitate systematic interaction between academic research, European and national policy makers, and industrial representatives in the communications sector.

Learning Communities Workshop

As a follow up of the Unit's work in the field of innovation and new learning communities, a validation workshop was held at IPTS on the 31 March – 01 April. This workshop brought together experts in the field to discuss the results of the study.

Mobile Search Workshop

This workshop gathered expert opinions on future market behaviour, innovation dynamics, techno-economic models, user adoption and acceptance issues with respect to new emerging mobile search applications. The aim of the workshop, which took place in April was to assess Europe's current status in this field and to identify possible policy options.

Upcoming Events

14/05 – 15/05: The Output of R&D Activities: Harnessing the Power of Patents Data Workshop

This workshop will be held at IPTS and will be attended by experts, both from inside and outside the EU, from academia and from public policy bodies such as the OECD, to discuss the production and use of patent data. Contact: Lucio Picci

June 2009: OLED and ePaper Workshop

The OLED and ePaper Workshop will be held in Brussels to discuss and validate research by the IS Unit on the EU competitiveness and industry position in this specific ICT field and relevant policy implications. Contact: Sven Lindmark

June 2009: RFID Workshop

This workshop will address RFID item-level tagging and RFID for public transport to discuss and validate research by the IS Unit on the EU competitiveness and industry position in this specific ICT field and relevant policy implications. Contact: Sven Lindmark

9/06: Medical Innovation Meeting

The IS Unit will also invite representatives from the 20 most important hospitals and the medical devices industry in Spain to discuss the innovation and introduction policies for new technologies, especially IST. Contact: Jose A. Valverde

4. The team



The Information Society Unit (almost complete) in the patio of the IPTS premises.