

# Micro data analysis of Internet use in Europe

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Information and communication technologies (ICT) are having an increasing influence on the daily life of citizens. In particular, the Internet is creating a new layer of participation of individuals in the societal and economic life. New services on the Internet affect a wide range of activities such as information retrieval, communication, training and education, commerce and finance, participation in social networks or leisure activities. Activities that have been performed offline are now offered as online service on the Internet. The growing pervasiveness of ICT leads to user friendlier applications on the one hand but requires access to ICT and basic internet and computer skills on the other hand. Persons who do not participate in the digital world run a risk to be excluded from important aspects of social and economic life.

The i2010 strategy<sup>1</sup> of the European Commission promotes an open and competitive digital economy and emphasises the roles of ICT as driver for inclusion and quality of life. Related to this strategy a benchmarking framework has been elaborated that sets out a list of indicators to monitor the development of the information society in Europe. In addition to these annually collected core indicators, statistical data on a special topic are collected as special module. These data provide a deeper insight in certain aspects of the information society, i.e. use of advanced services, e-skills, security and trust or e-commerce. Based on a European regulation, the Member States of the EU collect harmonised statistics on the use of ICT in households and by individuals since 2006. In 2008, Eurostat, the Statistical Office of the European Commission, received micro data on the use of ICT by individuals from a number of national statistical offices. Micro data enable multivariate statistical analysis on different issues of the information society. The current paper presents the results of statistical analysis regarding the pervasiveness of ICTs, intensity of internet use, the aspects of digital divide, the replacement of offline with online activities and readiness of persons to pay for Internet services.

The European ICT use survey for households and individuals of 2008 contained questions regarding access to ICTs, the use of computers and the internet, on online activities, e-commerce activities and the use of mobile phones. The survey put a special focus on advanced services, i.e. internet activities, which are considered as being new and are performed by "trendsetters".

The first part of the analysis concentrates on modelling the intensity of internet use and analysing online activities in relation to socio-economic background information, such as sex, age, education, income, employment situation. Additional explanatory variables, such as access to the internet via broadband or the place of internet use are introduced as explanatory variables. Statistical analysis is performed with the aim of characterising different types of internet users according to the frequency of internet use. Furthermore, internet activities are grouped into categories, e.g. communication, leisure, education. Internet users are analysed according to these online activities and their specific socio-economic profile. A focus is put on the question if online activities replaced offline activities. Considered activities are reading newspapers, listening to music or watching movies. A third emphasis is laid on the question of readiness of persons to pay for online content and services. Today internet services are usually provided for free and are financed via advertising. The paper analyses the willingness of persons to pay for online content and services and will try to detect links between different internet activities and offers for which users have to pay.

The paper is a first attempt of using the European micro data on the use of ICT by individuals applying multivariate analysis. With a more complete coverage of the European countries in the near future the potential for this type of analysis will grow.

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<sup>1</sup> See [http://ec.europa.eu/information\\_society/eeurope/i2010/strategy/index\\_en.htm](http://ec.europa.eu/information_society/eeurope/i2010/strategy/index_en.htm)