

Pillar 1

Internet usage and online content

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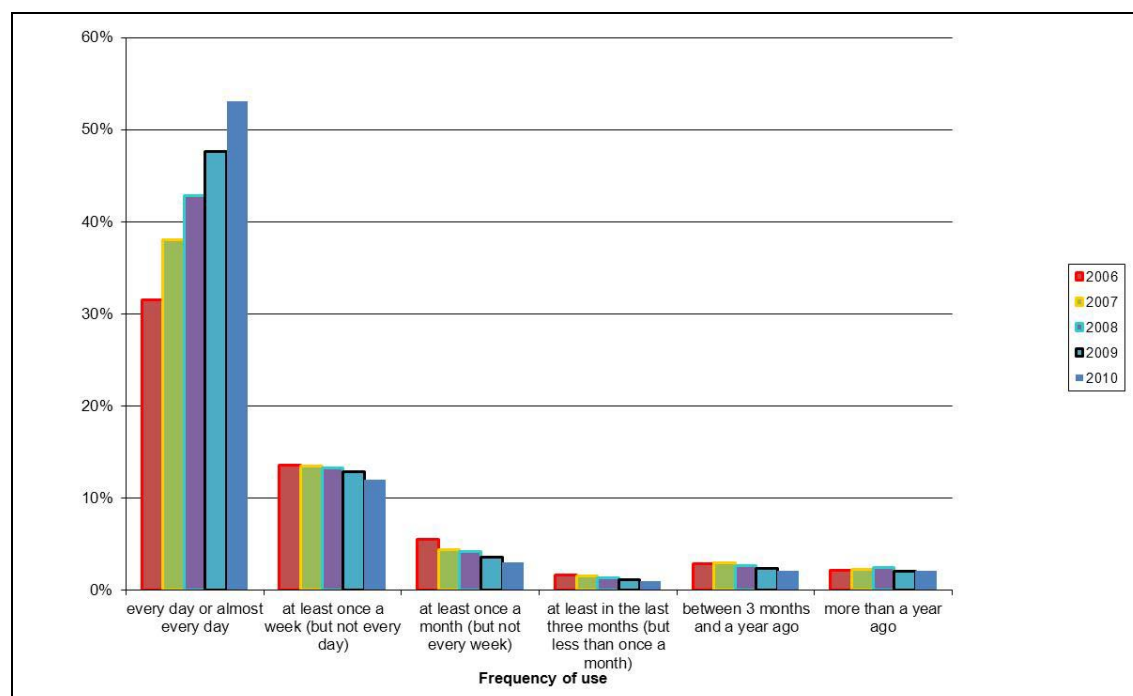
1. INTRODUCTION

More and more citizens use the Internet regularly – by now around two-thirds of the population are regular users. Conversely, the number of non-users has dropped. In short, using the Internet is fast becoming as self-evident as reading a newspaper or watching TV. Nevertheless, usage is not evenly spread. Some groups use the Internet more, others less. The first three sections of this report take a close look at how certain socio-economic factors such as age or education affect Internet usage. Then it explores the role of the Internet with respect to some specific everyday activities – banking, education etc., and addresses questions relating to what people actually do when using the Internet and which are their favourite online content.

2. INTERNET USE FREQUENCY

In 2010, 74% of the EU population had used the Internet at least once, an increase of 4 pp from 2009. Even more remarkably, frequency of use continued to rise. By now, nine out of ten people that have ever used the Internet are regular Internet users¹. Regular Internet users currently represent 65% of the population, up from 60 % in 2009. At this rate, the European Digital Agenda target of 75% will already be met in 2012, well ahead of 2015. However, maintaining the pace of growth will be no easy task since for the "easiest" classes of users saturation levels have been reached and further progress will mostly depend on the catching up of lagging socio-economic groups.

Figure 1: **Internet use as a % of population (EU-27) by usage frequency**



Source: Eurostat Community Survey on ICT Usage in Households and by Individuals

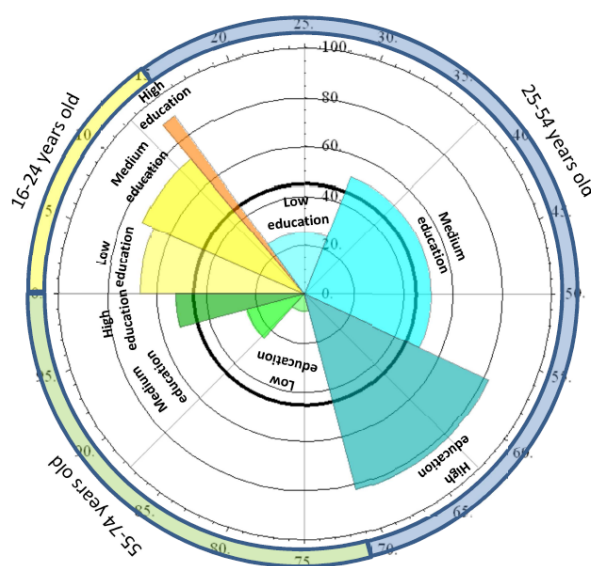
¹ Regular Internet users are defined as those that use the Internet at least once a week.

3. INTERNET USE BY SOCIO-ECONOMIC CATEGORY

Internet use data can be grouped into smaller socioeconomic categories such as age groups (16-24 years, 25-54 years, and 55-74 years²) and educational attainment (low, medium, high). In fact, age and education are two key factors in determining the probability of using the Internet as well as using ICT more in general.

The use of the Internet can be broken down by education levels for each of the three age groups (Figures 2 and 3). The groups are weighted by their importance in the population. Figure 2 provides data from 2006, while figure 3 shows the same data for 2010.

Figure 2: **Regular Internet use in the EU27 in 2006 – breakdown by age-education groups**



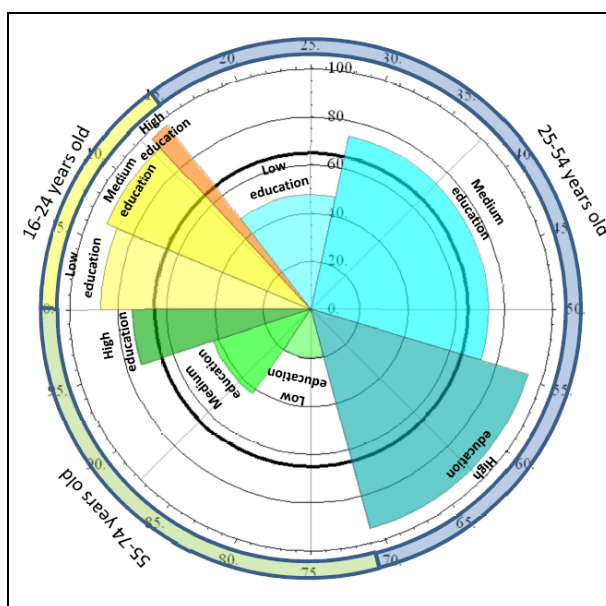
Sector chart: the amplitude of each sector represents the demographic weight of each age-education group in total EU27 population while its height represents the percentage of regular Internet use for that group.

Source: Commission services on the basis of Eurostat Community Survey on ICT Usage in Households and by Individuals.

The darker circles in both figures represent the average share of regular Internet use in the EU. They show an increase from 45% to 65%, i.e. of 20 percentage points (pp), almost half the initial value in only four years. The group breakdown shows that in both 2006 and 2010 young people were among the most active Internet users, surpassed only by working age university graduates. In 2006 the attainment of higher education still made a difference among young citizens, probably due to exposure in universities, given the importance of the Internet as a research tool. By 2010 the difference between young people with low/medium education and high education had been considerably reduced, probably because of the introduction of Internet as an educational tool in schools or in homework activities. Another big factor is the growing demographic importance of children born in the digital era, the so called 'digital natives'. As a result in 2010 regular Internet use among young people ranged from 87% of the low educated to 97% of the highly educated ones.

² Only population aged between 16 years and 74 years is sampled in the statistics on Internet use.

Figure 3: **Regular Internet use in the EU27 in 2010 – breakdown by age-education groups**



Sector chart: the amplitude of each sector represents the demographic weight of each age-education group in total EU27 population while its height represents the percentage of regular Internet use for that group.

Source: Commission services on the basis of Eurostat Community Survey on ICT Usage in Households and by Individuals.

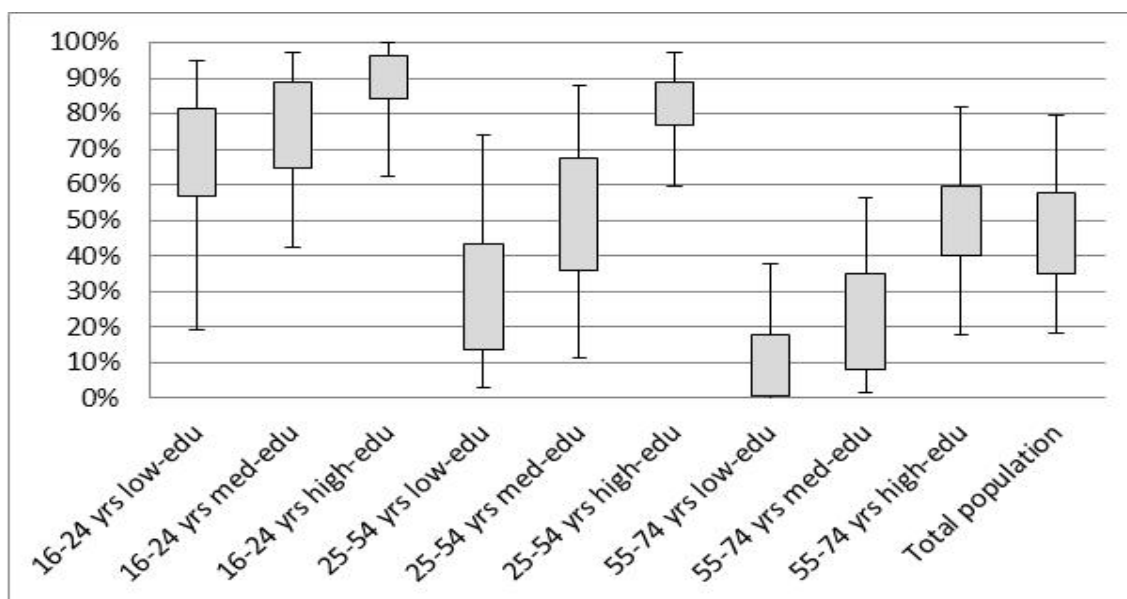
For the middle-aged group (25-54 years old) education continues to make a great difference, although differences have been somewhat reduced because the levels for highly educated people were already close to saturation, reaching 94% in 2010. Finally, regular Internet use by older people (55-74 years old) remains largely below average. Whilst highly educated older people display an average use of 74% in 2010, those with medium education (42%) and particularly those with low education (20%) remain far below. Nevertheless, even these categories are now much closer to average use than four years ago.

Looking at the demographic weights of the different age-education groups, middle age and old people with low education represent each 14% of the population, while old people with medium education make up another 10% of the total. That means that the three groups with substantially below-average Internet use make-up around 40% of the population. In the long term, demographics, i.e. is the passage of young people into the older age groups, helped by a better educational attainment of young generations, will contribute to the wider diffusion of Internet use. However, given the demographic weights of these different age groups, this process will take a long time. In order to increase overall levels of Internet use in the next couple of years, policies such as digital skills are needed to target those ‘at risk groups’.

4. INTERNET USE BY SOCIO-ECONOMIC CATEGORY, VARIATION BETWEEN COUNTRIES

Results for the same age-education group vary across Member States. Figure 4 provides this data for 2006, and figure 5 for 2010. The dispersion of the overall Internet use total population has been slightly reduced between 2006 and 2010, with the interquartile range³ declining from 22 pp. to 19 pp. and the difference between maximum and minimum value falling from 61 pp. to 54 pp.

Figure 4: **Regular Internet use in the EU27 countries in 2006 – box plot of country values in the different age-education groups**



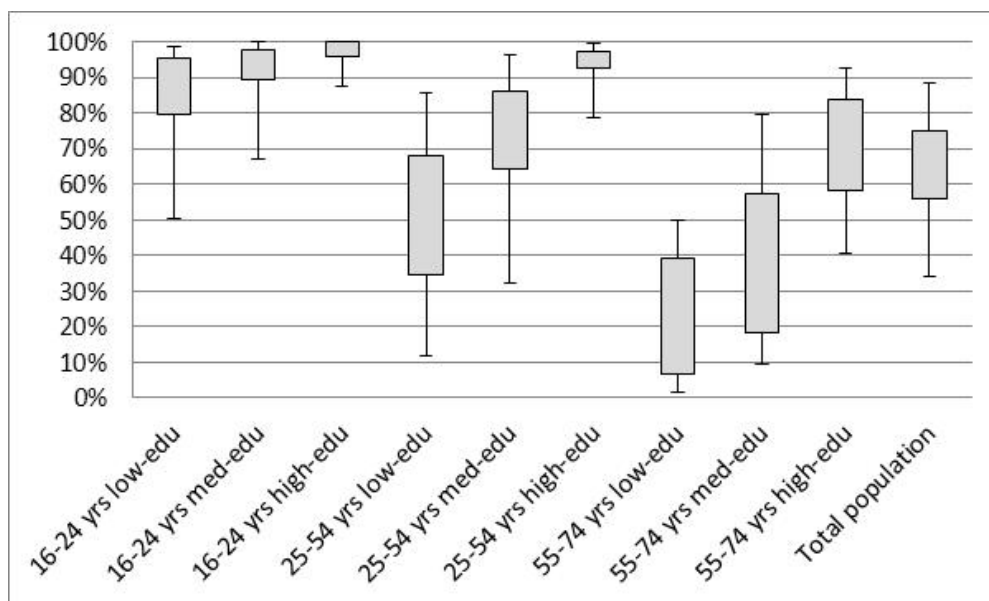
Box-plot chart: it represents country dispersion of values for regular Internet use for various age-education groups. the boxes represent the dispersion of country values for half the countries closest to the median values while the upper and lower bars represent the dispersion for the other half countries further away

Source: Commission services on the basis of Eurostat Community Survey on ICT Usage in Households and by Individuals.

However, this slow development masks several remarkable results for specific age-education groups. Firstly, there is a strong increase in Internet use by the young population, which is a common feature of all countries and leads to a huge reduction in the dispersion of values (the height of the boxes that is decreasing significantly). This effect is most impressive for the highly educated young people, with more than three quarters of Member States displaying at least 96% regular Internet use for this age-education group and with the remaining countries displaying values above 87%. A reduction in dispersion similar to young graduates can be observed for highly educated people in working age (25-54 years old), albeit at a slightly lower speed. Finally, the medium-educated working age group also displays the same trend.

³ The difference in value between the third and first quartile of country values, i.e. the size of the boxes in the figure

Figure 5: **Regular Internet use in the EU27 countries in 2010 –box plot of country values in the different age-education groups**



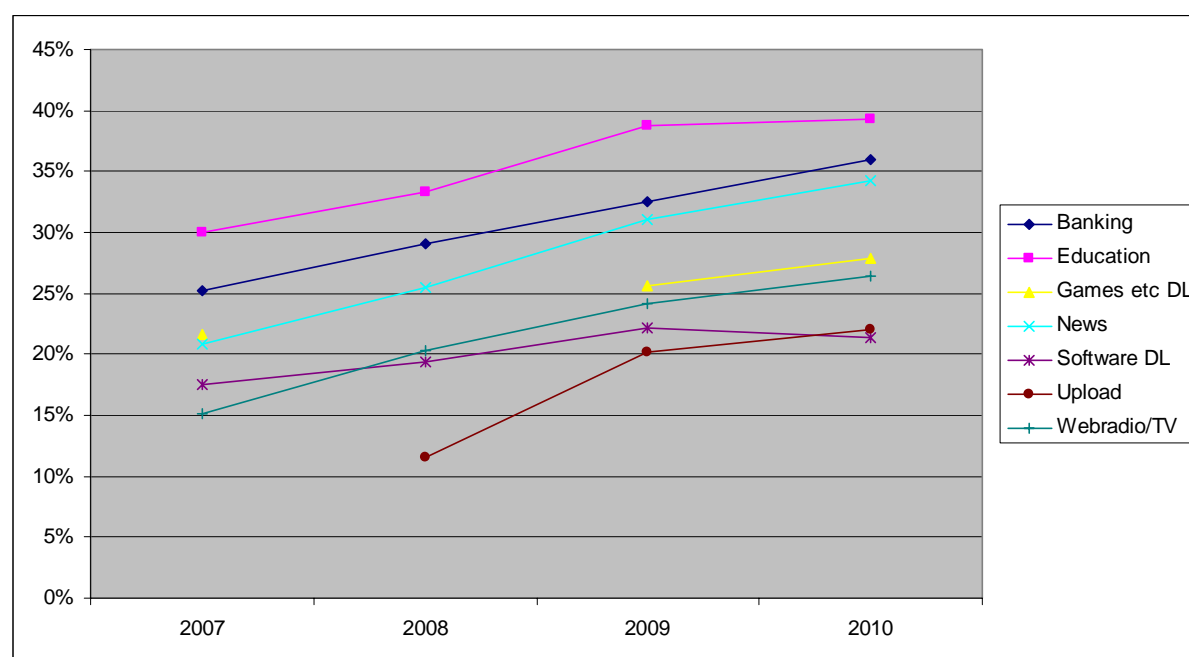
Box-plot chart: it represents country dispersion of values for regular Internet use for various age-education groups. the boxes represent the dispersion of country values for half the countries closest to the median values while the upper and lower bars represent the dispersion for the other half countries further away

Source: Commission services on the basis of Eurostat Community Survey on ICT Usage in Households and by Individuals.

On the other hand, ‘at risk groups’, i.e. older people and the low educated middle-aged, show - despite progress in Internet use - an increase in dispersion across countries. This means that there is no or limited catching up between countries inside these groups, the opposite of what happens for the young and/or highly educated groups. Given the demographic weight of these ‘at risk groups’, this explains the limited convergence observed in Internet use by the total population across countries.

5. ONLINE CONTENT

Given the rising numbers of Internet users in all age groups, and in all Member States, what do all these people actually use the Internet for? For a number of formerly offline activities, such as education, banking or news gathering, the Internet has become one of the key channels of distribution, with a third or more of the population turning to the Internet for those purposes (Figure 6).

Figure 6: **Online content⁴ trends as % of citizens⁵**

Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

More generally, it becomes evident that growth has been similar for most of these different kinds of services, with the result that usage rates have somewhat converged. In fact, in 2007 usage rates of different services were still distributed more widely, and several areas were still on the fringes, such as webradio/TV and content upload; these have become much more popular in 2010. The following sections will look at each of the different kinds of online content⁶.

Education and training

In 2010, almost 40% of the population used the Internet for education and training purposes, up from 30% only three years ago. However, growth has declined compared to 2009. Using the Internet for education and training purposes increased by only 2 pp in 2010. Its use is most widespread where the information society is developed the most. Indeed, in most of the

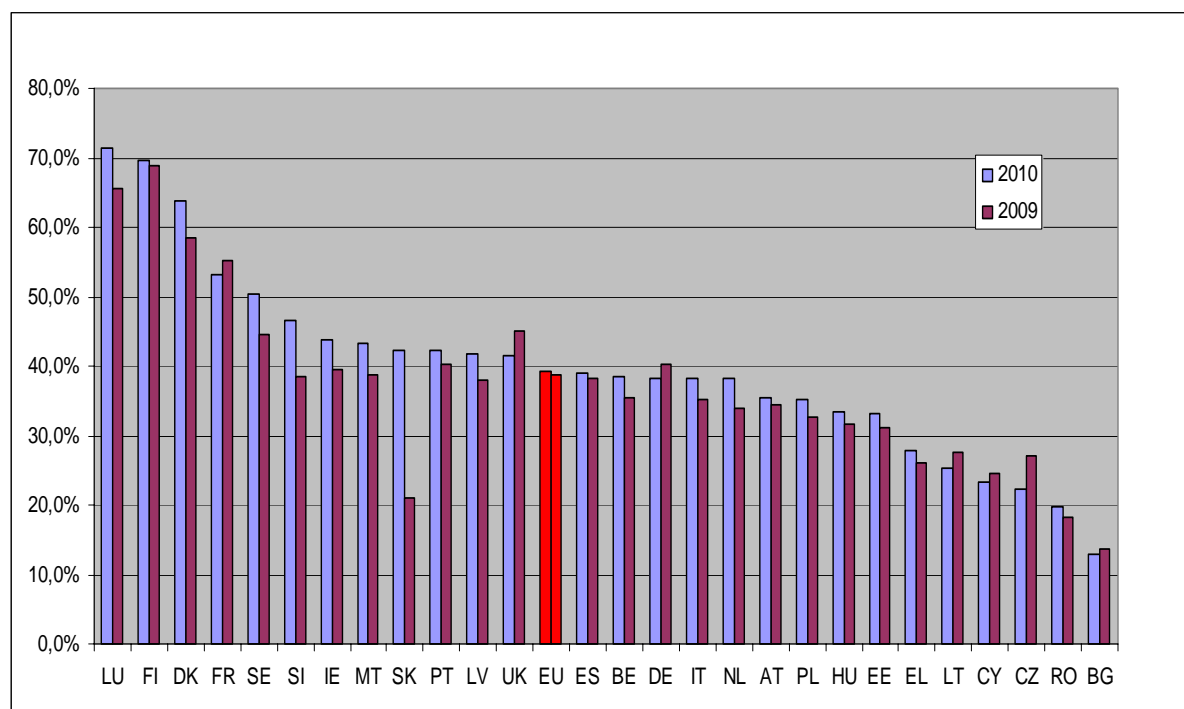
⁴ Data excludes use of On-Demand movie (for which only revenue numbers are available), posting messages and P2P exchange (for both only 2007 and 2010 data is available). See below for more details.

⁵ This table refers to citizens. Please note that some of the tables below will instead indicate the share of Internet users performing a given activity.

⁶ To measure online content we are looking at ten important areas: education and training; online banking; reading/downloading of news/newspapers/magazines; messaging (chat sites, discussion forums, newsgroups); downloading of games (including playing of games), music, films and images; use of webradio/TV; uploading of self-created content (music, films, images etc.); software downloading (other than game software); P2P exchange activity; and revenues of On-Demand Movie services. The areas have been selected among other considerations with regard to data availability.

Nordic countries, as well as in Luxembourg, between 50% and 70% of citizens used online education and training.

Figure 7: Use of the Internet for education and training, in % of citizens



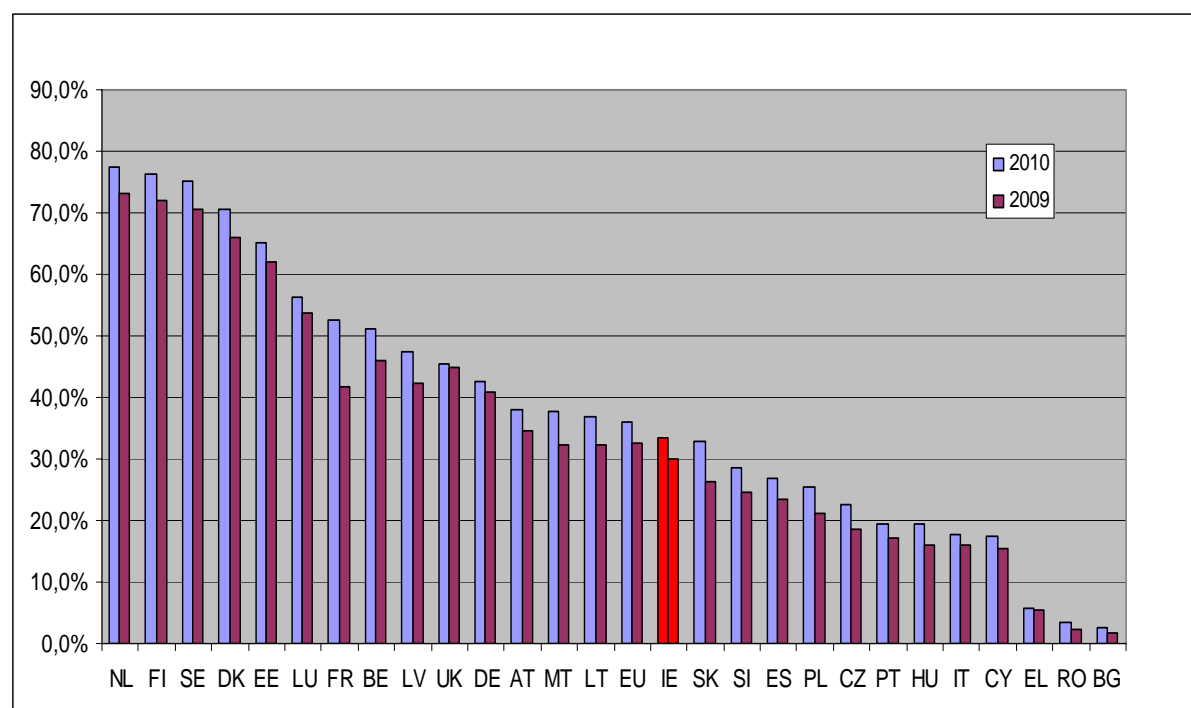
Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

Banking

Online banking continued its regular growth. Like in 2008 and 2009, the share of citizens engaging in online banking increased by nearly 4 pp, now reaching 36% at EU level. It became a majority activity in the Nordic countries, the Benelux and France, and a mainstream way of banking everywhere else, with the exception of Greece, Romania and Bulgaria, where it remained a rarity in 2010.

Looking at the relationship between 2010 levels of online banking and its growth, those countries with high levels have continued to increase strongly, whilst those with low shares have seen low or no growth at all, just like in the previous years.

Figure 8: Use of online banking, in % of citizens



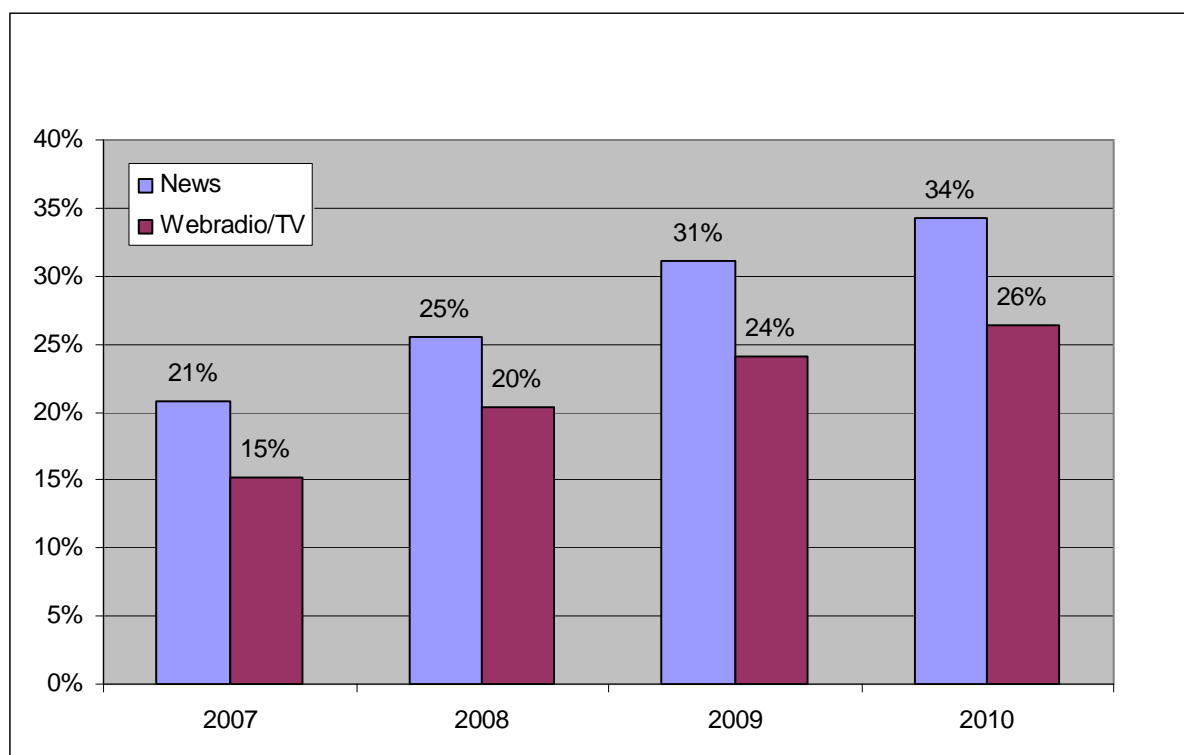
Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

Webradio/TV and News

More and more people rely at least partially on the Internet as a source of news. Both online Webradio/TV as well as online news/newspapers/news magazines have experienced constant and solid growth rates throughout the EU. More than a third of all citizens read news online in 2010, and more than a quarter listened or watched to webradio or webTV. There is, however, a strong geographic angle to this. In fact, it is only in the Nordic countries where the majority of citizens listened to webradio or watched web TV. For consumption of online news, it is the Nordics and the Baltics together which lead the field.

Interestingly, for both webradio/TV and online news there is a tendency for higher growth in Member States with already high levels. In other words, the Nordics not only have the highest level, but also the highest growth. For news, the converse also holds true: those countries in where online news consumption was lowest also exhibit the weakest growth. This is especially the case for France, Belgium and Poland.

Figure 9: Use of webradio/TV and news, in % of EU citizens

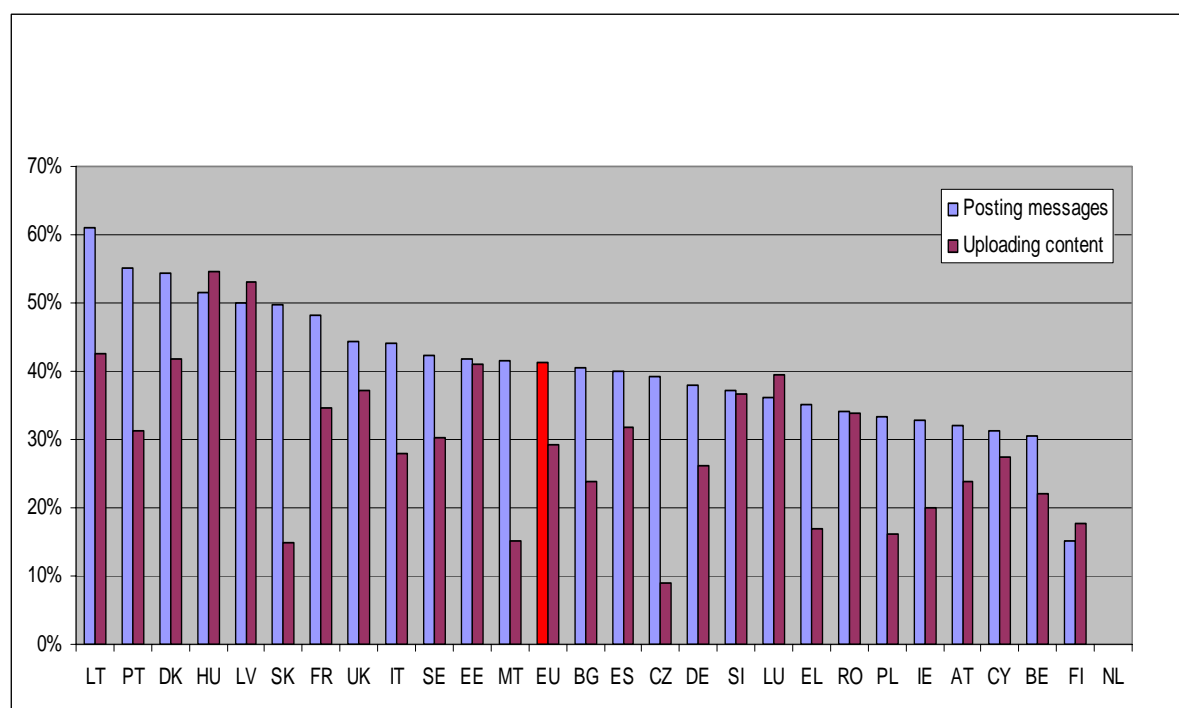


Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

User-generated content

User-generated content displayed a more stable picture than in the past. The share of broadband Internet users uploading content such as pictures, video or music seems to have stabilised at a fairly high level (30%), after a big jump of 10 pp in 2009. On the other hand, 4 pp more users than in 2007 decided to post messages to chat rooms, online discussion fora or news groups. It is noteworthy that from the country comparison the two activities appear to be neither complementary nor substitutable, as there was very little correlation between those countries where one was strong and those where the other was strong.

Figure 10: User-generated content, in % of citizens living in household with broadband access



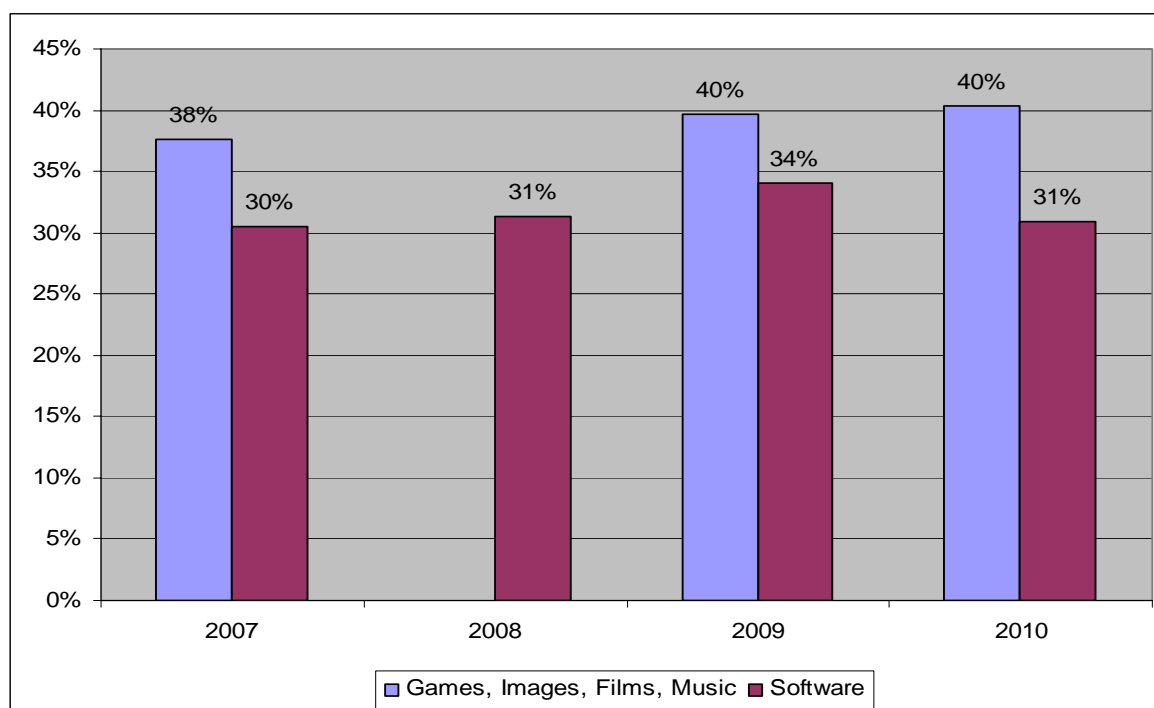
Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

It is also interesting to note that the growth in posting messages was concentrated in a few countries which already had high shares previously: in Sweden (19 pp), the UK (16 pp) and Lithuania (15 pp). However, they are not part of any particular regional pattern. In contrast, the stagnation in uploading was distributed relatively well across all Member States.

Downloading of software and games, images, films and music

The share of Internet users downloading games, images, films and music has been mostly stable over the last four years, indicating that new Internet users exhibit a similar behaviour as established users. Given the different demographic characteristics of new users – the biggest source for growth were medium-educated middle-aged people – this is quite remarkable. Downloading this kind of content is clearly not the preserve of highly-educated or young people anymore. On the other hand, these new users appear recently a bit less inclined to download software, which requires more technological understanding.

Figure 11: **Downloading of Software and Games, Images, Films and Music, in % of Internet users**



Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

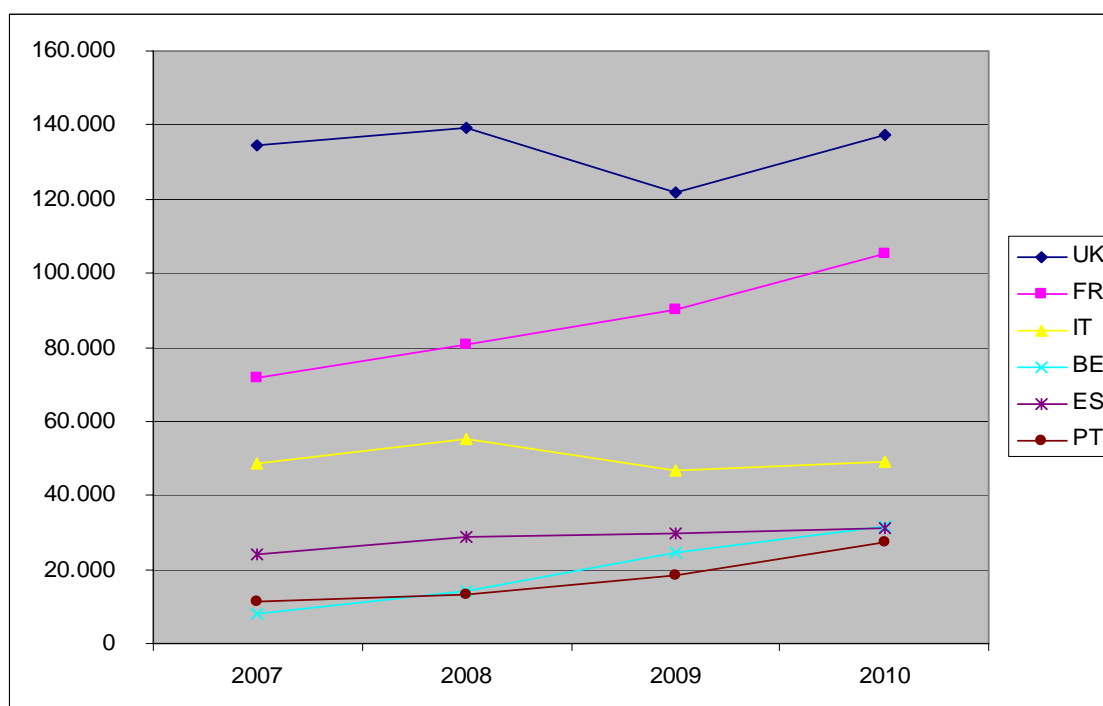
For software, the highest growth can be found in the countries with the highest shares (Denmark, Poland), but for games, images, films, and music the countries in which the share of Internet users downloading is highest are also among the few countries in which the share has fallen.

On-Demand Services

On-demand revenue includes income from individual on-demand transactions as well as on-demand monthly access fees and subscription video-on-demand in different content categories such as movies, events, sports and TV.

Irrespective of definitional issues, the on-demand market only reached relevant levels in the largest Western European countries, with France and the UK accounting for over half of the market, and Spain, Italy and Germany making up most of the rest. The rest of the EU Member States together only accounted for 15%, with the majority of countries having less than 1% of the overall revenue.

Figure 12: Total On-Demand revenue of countries with >5% market share in 1000 €



Source: ScreenDigest

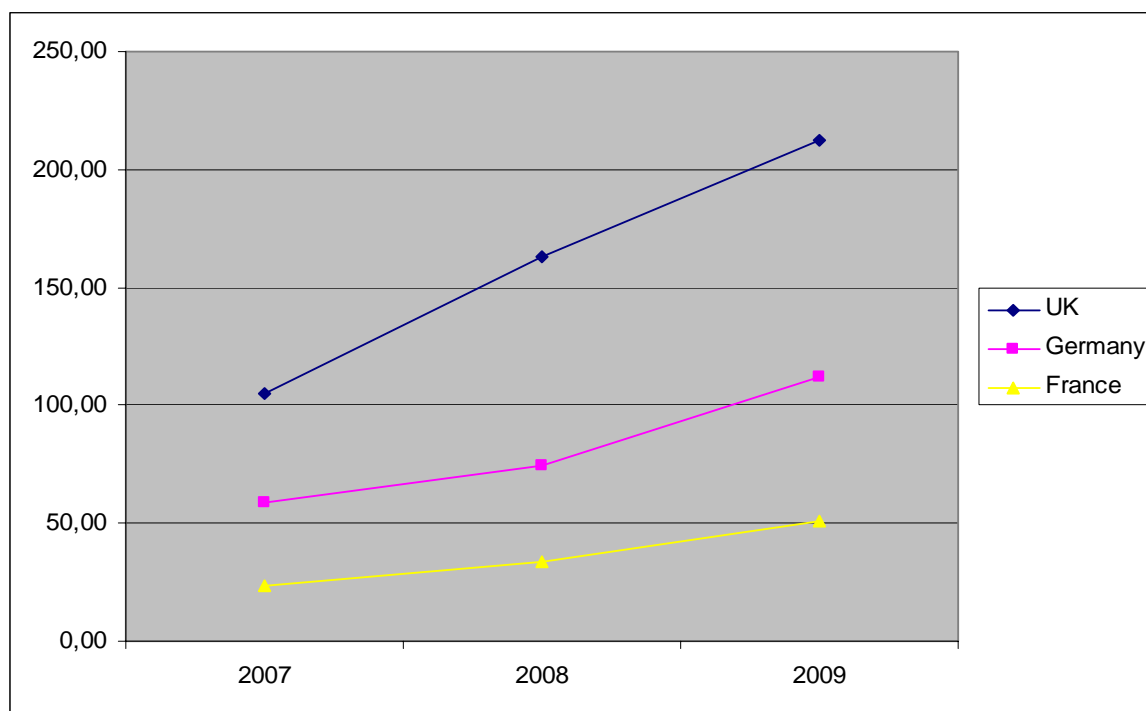
The growth pattern has been rather unequal during the last four years. France and Germany have seen constant growth: France fast growth from a high level, Germany slow growth from a low level. Spain and especially Italy saw falls in market value after 2008. The value in the UK started to fall earlier, but recovered in 2010.

As a result, the total EU market was only marginally higher in 2010 than it was in 2007, which is rather disappointing for the industry, given, increasing numbers of Internet usage, increasing bandwidth and increasing offers of on-demand services. As a typical premium good, one is tempted to ascribe the drop in demand to the financial crisis; however, this does not explain why Italy had a steeper drop than Spain, or why UK demand recovered so early. Clearly, other factors must have played a significant role, too.

Online Music

Revenues from music downloading are geographically even more concentrated than on-demand services, with the UK accounting for almost half of the market, and Germany and France for a large part of the rest.

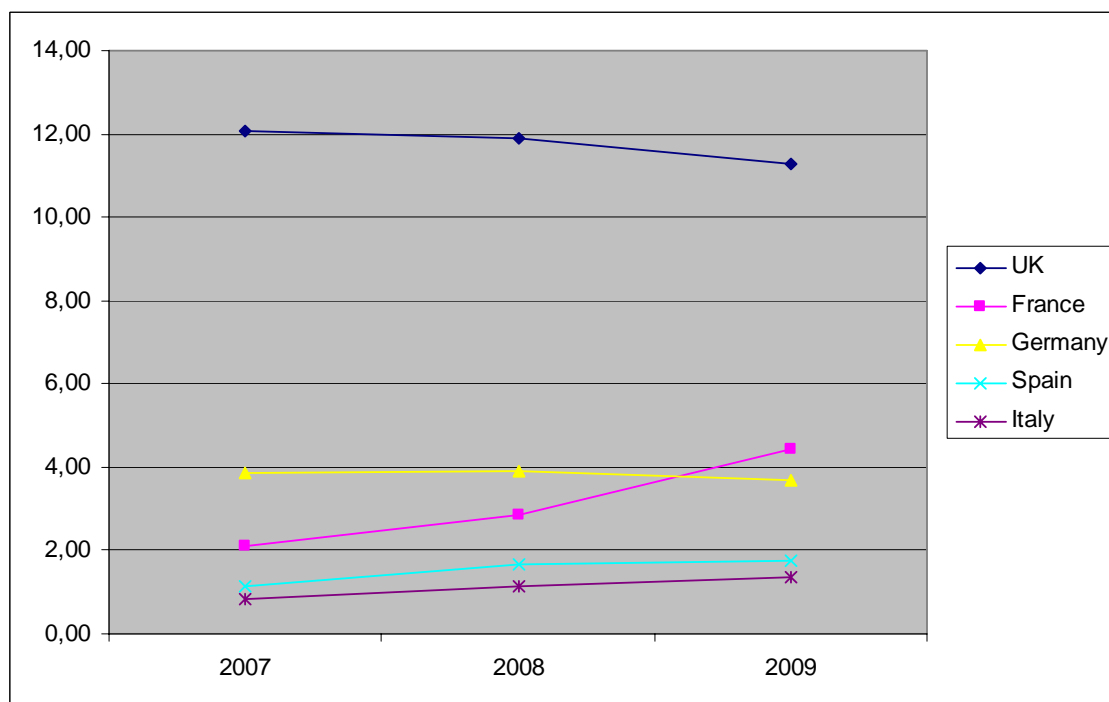
Figure 13: Total music download (albums + singles) of countries with >5% market share in €m



Source: ScreenDigest

Contrary to the on-demand market, growth has been constant for online music, even accelerating in 2009 when on-demand services were falling. This is most likely due to improved supply of attractive online music offers.

Figure 14: Online music subscription revenues (€m) in countries with >5% market share in €



Source: ScreenDigest

For online music subscriptions (as opposed to paying for an individual download), France is the main engine of growth while Spain and Italy increase marginally, and the UK and Germany even witnessed decreases. Thus, it would appear that in the UK and Germany the trend has been away from subscription to more individual downloads, while in France both grow simultaneously.

6. CONCLUSIONS

The share of population using the Internet has continued to progress as expected. Most of recent growth has come from medium-educated middle-aged and low-educated young citizens. For young citizens, usage rates have become more similar across countries, while for old citizens the opposite is true. The latter is probably due to the success of inclusion policies in some Member States, creating a gap with the other Member States which have not pursued this objective as consequently.

Daily activities which used to be performed offline, such as banking, reading the news, watching TV and listening to the radio are increasingly performed online. However, growth rates have decreased in almost all areas, although saturation levels are still far away.

Not only have nearly all areas of online content become more popular, the difference in popularity between the different kinds of online content has also been somewhat reduced. One possible explanation could be that the new user groups, such as the middle-aged, have a wider range of interests which they are performing online.

Finally, new audiovisual content such as on-demand services and online music subscriptions constitute a significant market only in the largest Western European countries. With increasing numbers of Internet users, as well as rising supply, these online contents should be able to develop significant market in smaller countries and in Eastern Europe as well. However, this seems to take more time than might have been thought.