3 Comparing the results from Eurostat with other recent experiences

This section looks at other identified sources and their key findings compared to Eurostat.

The analysis aims to identify deviations in the previous findings as well as the underlying reasons for such potential variance (e.g. data sets, type of survey).

Furthermore the analysis looks at types of complimentary data successfully used in other measuring and monitoring initiatives, and how these may support and improve the monitoring and measurement of digital literacy among potentially marginalised groups in Europe. The analysis highlights any potential components which differ and which could be of interest and added value if included in Eurostat. The focus is on indicators and results in relation to potentially disadvantaged and marginalised individuals and communities such as the elderly (especially persons 75 years or older), the disabled, ethnic and cultural minorities, and low income families.

Overall, findings based on Eurostat data on digital literacy are generally consistent with results from the disparate surveys presented in this section. However, much could likely be gained by including particular demographic information on ethnic background, mother tongue, and/or migratory status in the background variables.

3.1 Computer use, internet use, and digital literacy

It should be noted that only a few monitoring initiatives have actually developed a rigorous definition and measure of digital literacy. Rather than trying to define what is implied by the concept of digital literacy, most of the sources referred to concentrate efforts on simply measuring and monitoring basic computer and internet use and/or the changing performance patterns of certain activities within selected demographic and socio-economic groups. In fact, for the purposes of this study only two explicit frameworks have been identified which have been implemented and for which relevant data are available. These are the pan-European SIBIS initiative (2001-2003) under the IST framework programme[65], and a recent Danish endeavour (2006)[66] to measure the entire population's level of digital literacy, the Citizens' ICT Skills project (currently being transferred to Norway as well by the Norwegian Institute for Adult Education, Vox[67])[68].

Like Eurostat, both SIBIS and the Citizens' ICT Skills project are distinguished by a progression in skills levels beyond patterns of single item usage. While Eurostat employs the

[65] www.sibis-eu.org
[66] www.itst.dk/e-laering-og-it-faerdigheder/publikationer/borgernes-ikt-ferdigheder-i-danmark/Borgernes%20IKT-ferdigheder%20i%20Danmark.pdf
[67] www.vox.no/upload/7903/The_Digital_Citizen_SEC.pdf
[68] However, in addition to these two DL monitoring initiatives, several theoretical deliberations such as conceptual articles by Aviram & Eshet-Alkalai and by Eszter Hargittai and practical schemes such as individual learning tests by the European Computer Driving License Foundation (ECDL), the Educational Testing Service (ETS), Certiport – behind the IC^3 promoted by the Global Digital Literacy Council –, Cambridge, OCR, and, for instance, Atomic Learning obviously exist (see references in the back).

two independent (but interrelated) and supposedly unidimensional – Guttman-quality-feel[69] – scales of computer and internet skills examined in the previous section, SIBIS accordingly introduces a four-dimensional index combining information on the abilities to:

1) Communicate with others
2) Obtain and install software on a computer
3) Question the source of information on the internet
4) Search for necessary information using search engines into one aggregate measure.

Similarly, the Citizens' ICT Skills project proposes an index with eight distinct dimensions drawing extensively on concepts developed by the American Educational Testing Service (ETS[70]) to measure the fundamental proficiency levels at:

1) Defining information needs
2) Accessing relevant information
3) Managing information
4) Integrating information
5) Evaluating information
6) Creating new information
7) Communicating and transmitting information
8) Being technologically self-reliant.

Nevertheless, although the initiatives identified in the survey of country activities reported upon also in Topic Report 1 introduce different definitions of digital literacy and many simply measure tasks undertaken by persons using computers, mobile telephones, or other devices and the internet, they all give indications of familarity with and skills levels at using digital tools. Examining the practical implementation of these initiatives, moreover, there are several similarities between the three above initiatives, SIBIS, Citizens' ICT Skills project, and EUROSTAT – and in particular in the underlying framework for the SIBIS index and Eurostat[71].

Before proceeding, it should be taken into account that the OECD is currently in the final development stages of a large-scale assessment initiative to measure the level of adults' general competences (PIAAC). The initiative is supported by the European Commission and includes a comprehensive focus on competences needed to use ICT in a purposeful manner. A

[69] A Guttmann scale, or cumulative scale, constitutes a set of progressively narrower items or questions constructed so that a respondent who agrees with any specific question on the list ideally also will agree with all previous items on the list. Thus, for instance, in relation to question E3 of the Eurostat Community Survey regarding computer skills, the first items include relatively simple tasks such as copying or moving a file or a folder while the latter of the six items concern the relatively complex task of writing a computer program using a specialised programming language (see further about the construction of Guttman scales at, for instance, www.socialresearchmethods.net/kb/scalgutt.htm).

[70] ETS is a nonprofit, non-stock corporation organized under the education laws of the State of New York, USA with the mission to help advance quality and equity in education by providing fair and valid assessments, research and related services. The organisation stands behind tests such as the SAT and GRE college placement tests and the TOEFL English as second language ability test as well as the ICT test *iSkills*. See further, www.ets.org.

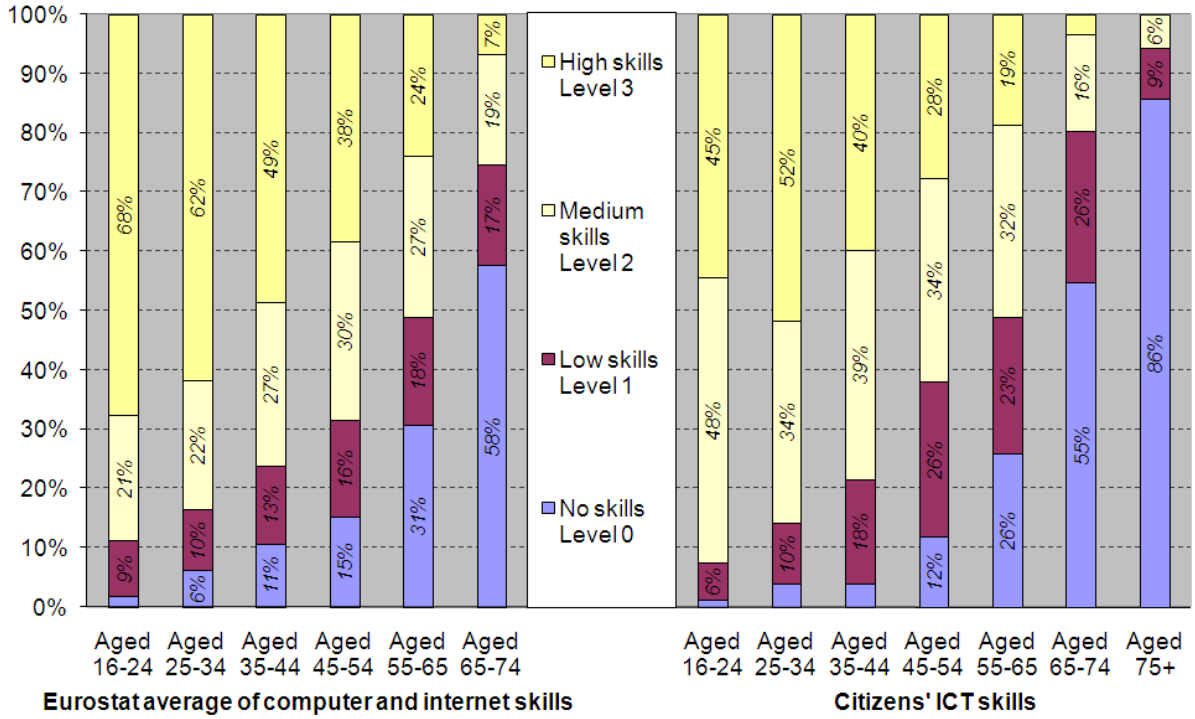
[71] See further footnote 89

component directly testing adults' problem-solving capacity in a technology-rich environment will be a key feature in PIAAC[72].

3.2 Age

When analysing data from Eurostat on the levels of computer and internet skills across age groups, the data show a clear relationship between age and digital literacy as illustrated in figure 47 below. The younger age groups seem collectively more adept than the elderly population at using computers and the internet. Similar patterns are found in other sources. Notably, the shares of each age group with low and particularly no skills are strikingly similar for Eurostat and the Citizens' ICT Skills project regarding the Danish population; only the shares with high skills generally tend to be somewhat smaller in the latter survey – probably mainly reflecting differences in how skills levels are defined within the two different frameworks (that is, what constitutes the possession of low, medium, and high skills respectively in each instance). Furthermore, differences in survey questions may also account for the surprisingly large share of the youngest age group between 16 and 24 with only medium skills compared to the age group between 25 and 34 in the Citizens' ICT Skills project.

Figure 47: The ICT skills of the Danish Population according to age group, 2007

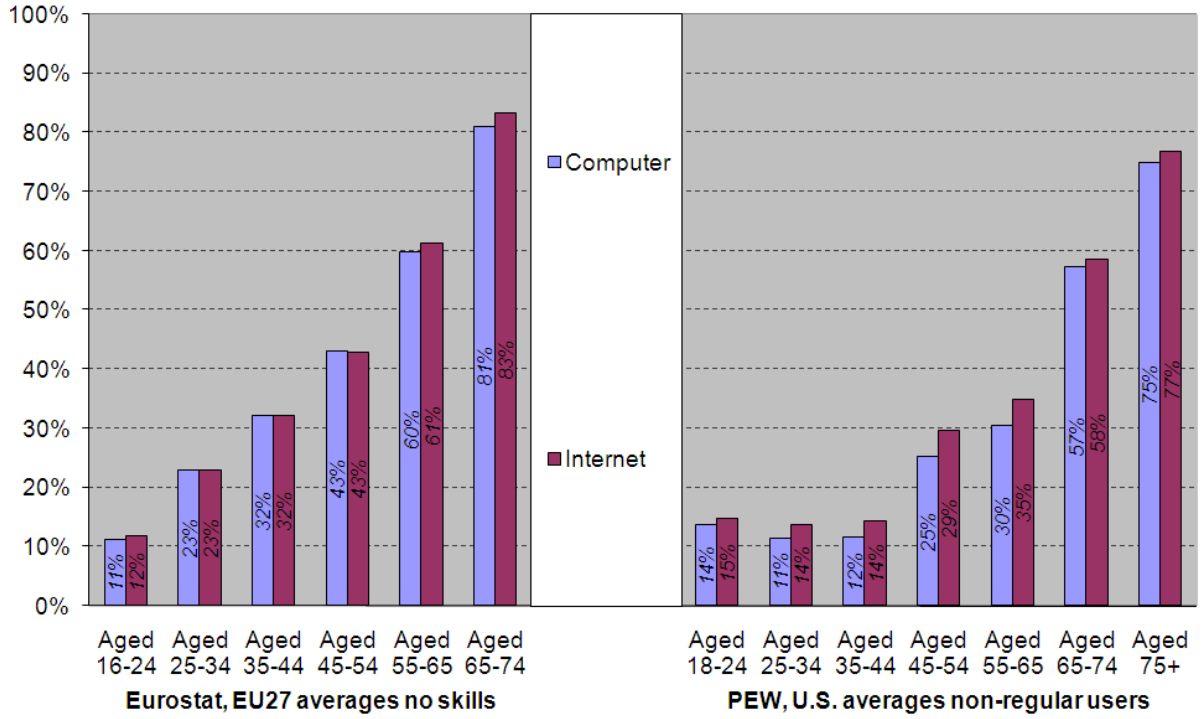


Also the 2003 results from SIBIS covering Europe and USA suggest that young age groups tend to be more proficient than the population in general (according to this survey the highest overall levels of digital literacy among the countries surveyed are found in the USA). As illustrated in figure 48 below, moreover, equivalent regressions across age groups from young to old are found in the U.S. by the PEW Internet & American Life Project concerning the number of irregular computer and internet users. These figures may be roughly compared to

[72] www.oecd.org/els/employment/piaac

the share of the European population with no skills in this field – absolute levels are lower though and differences appear at a higher age. It is also notable that Americans aged 25-44 according to this survey actually might be more avid users of computers and the internet than younger age groups, as levels of non-regular users appear to slightly drop from the age group 18-24 until the age group 35-44. However, data from 2003 on the use of computers for task-oriented purposes from the OECD Adult Literacy and Life Skills Survey do not show a similar age pattern as the PEW Survey[73].

Figure 48: Shares with no internet and computer skills and shares of non-regular internet and computer users according to age groups in the EU and USA, 2007[74]



Interestingly, both PEW and the Citizens' ICT Skills project have measured the computer and internet skills of individuals older than 74, the oldest persons regularly measured in the Eurostat Community Survey. Findings show that the dramatic increase in shares of persons with no skills or non-users between the age group 55-65 and the age group 65-74 only continues between the latter group and the very oldest group of 75+. These findings are supported by the evidence – though limited - available from Eurostat regarding this particular age group (see figure 49). In the six countries which provide data on a voluntary basis, those aged 75+ have practically no computer skills and even fewer internet skills. Even in a country such as Norway, nine out of ten in this age group have at best a low ICT skills level. Based on this data, it seems likely that skills levels will be lower in most countries among the population groups too old to be regularly included in Eurostat at present.

[73] Task-oriented purposes include writing or editing text, accounts, spreadsheets or statistical analysis, creating graphics, designs, pictures or presentations, programming or writing computer code, keeping a schedule or calendar, and reading information on a CD_ROM or DVD. See further, Statistics Canada and OECD (2005). *Learning a Living: First Results of the Adult Literacy and Life Skills Survey* (www.statcan.gc.ca/pub/89-603-x/2005001/pdf/4200878-eng.pdf).

[74] Unless otherwise noted PEW data are from February/March 2007 (www.pewinternet.org/PPF/r/64/dataset_display.asp).

Figure 49: Computer and internet skills among those aged 75 and above, Eurostat 2006

	Computers			Internet		
	No skills	*Low skills*	*Medium or high skills*	*No skills*	*Low skills*	*Medium or high skills*
Spain	98%	1%	1%	99%	1%	0%
Hungary	97%	1%	2%	:	1%	1%
Italy	99%	1%	1%	:	0%	0%
Latvia	98%	1%	1%	98%	2%	0%
Norway	82%	5%	13%	85%	13%	2%
Slovakia	97%	2%	1%	98%	2%	0%

3.3 Gender

With regard to gender differences, the same patterns emerge in both the Citizens' ICT Skills project and from PEW compared to the Eurostat data, as presented in figures 50 and 51 below. Although women overall appear to be somewhat less proficient than men in using computers and the internet, this difference is in fact largely driven by the significant gender gaps first emerging at ages 55+ or even 65+, as the shares of men and women with no skills are practically identical for the youngest age groups (in fact, according to PEW, American women between 25 and 64 are slightly more likely than American men to be regular users of computers and the internet). As in Eurostat, the real gender differences are tied to individuals with either medium or high level skills. For this group, a somewhat larger share of men than women tend to have high skills. There are no reasons to assume that Eurostat data would be different if available for the older age group.

Figure 50: The ICT skills of the Danish Population according to gender and group, 2007

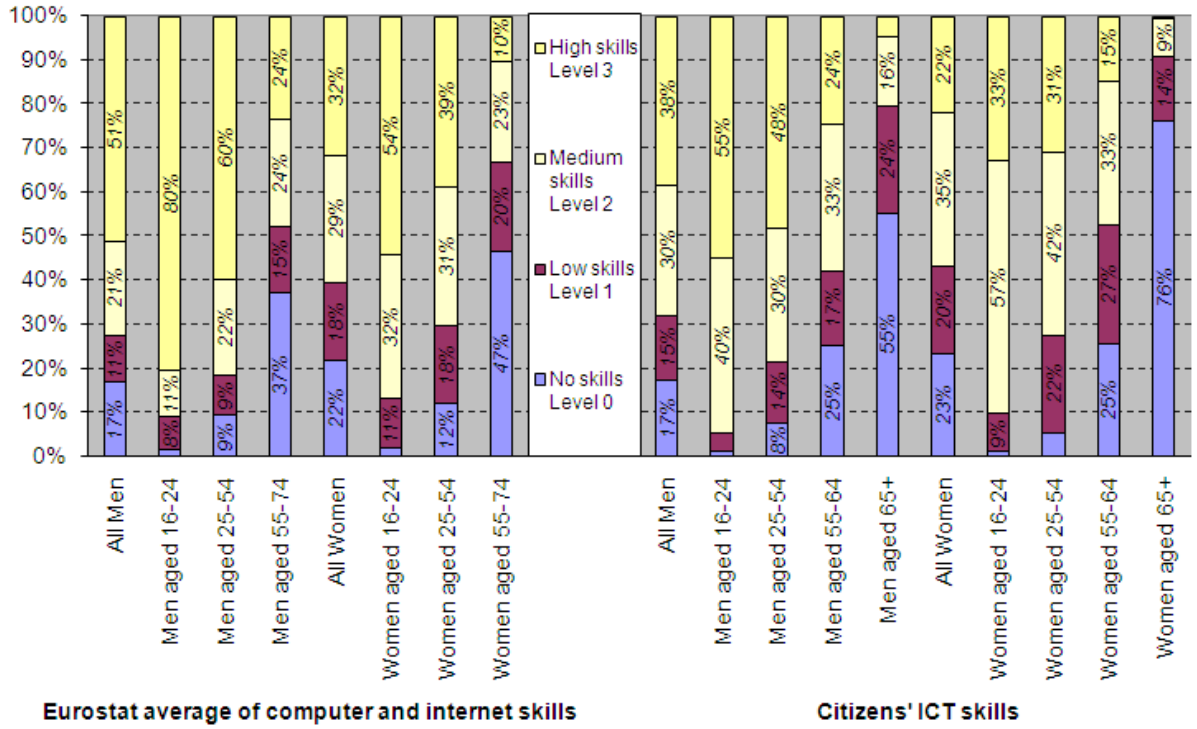
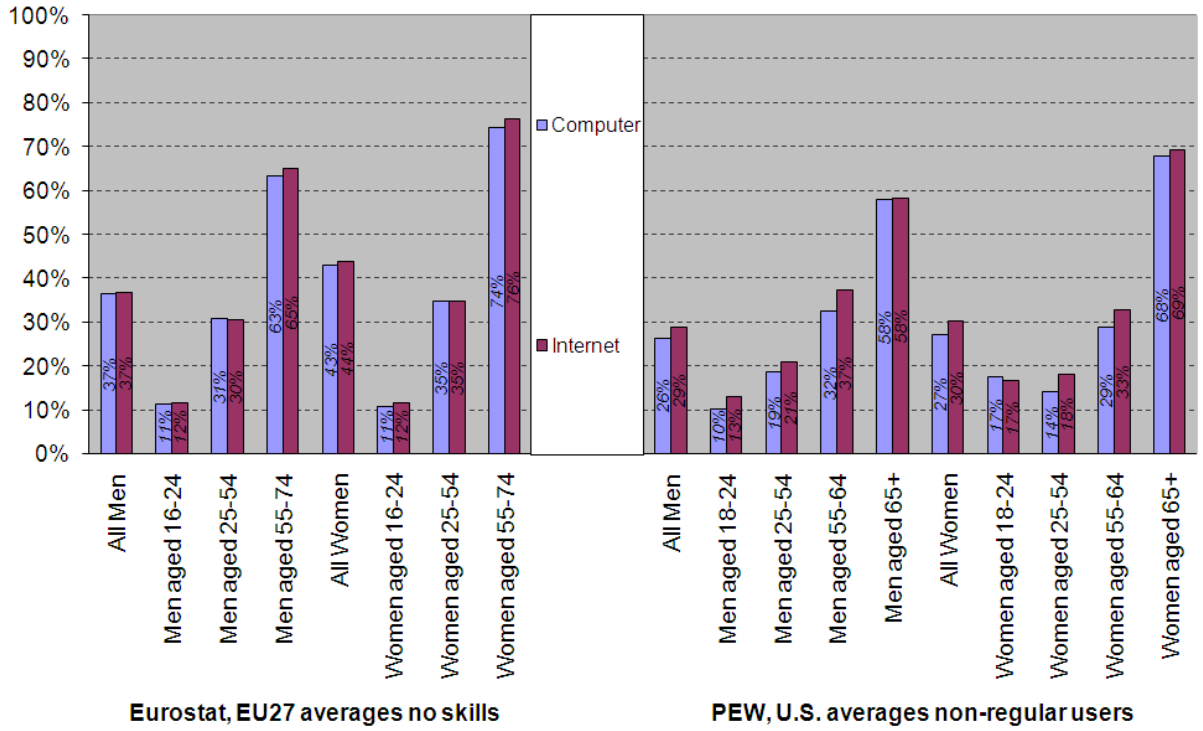


Figure 51: Shares with no internet and computer skills and shares of non-regular internet and computer users according to gender and age group in the EU and USA, 2007



3.4 Education

As was the case with age, there is also a clear relationship in the Eurostat data between educational attainment and levels of computer and internet skills. This conjecture equally holds up in comparison with results from other sources, although the Citizens' ICT Skills project classification suggests that some patterns may be obscured by using only three levels of educational attainment (see figure 52). In particular, Eurostat data do not seem to separate the extremely high skills levels of young people still attending secondary school (as surveys only target people 16 years or older) from the significantly lower skills levels of persons with only primary levels of education (presumably mainly older people harking back past educational systems). However, this separation might be accomplished otherwise by specifically looking at educational attainment within age groups or by looking at employment status instead (as presented in section 3.5 below).

Figure 52: The ICT skills of the Danish population according to educational attainment, 2007

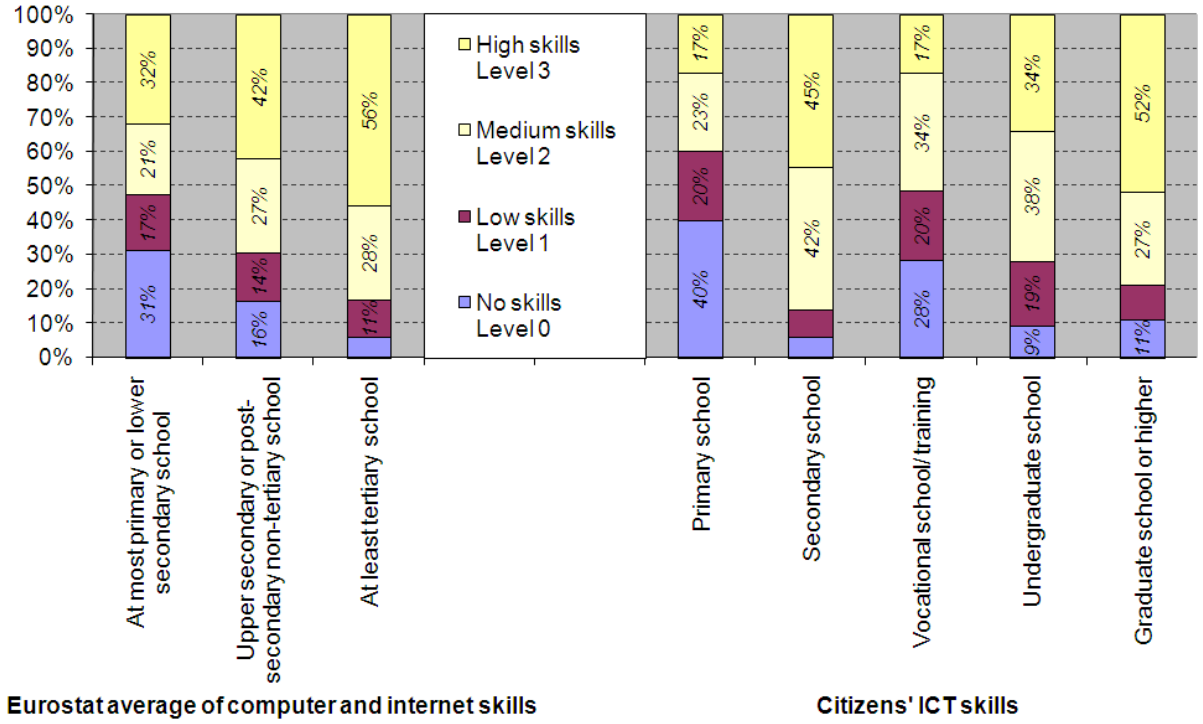
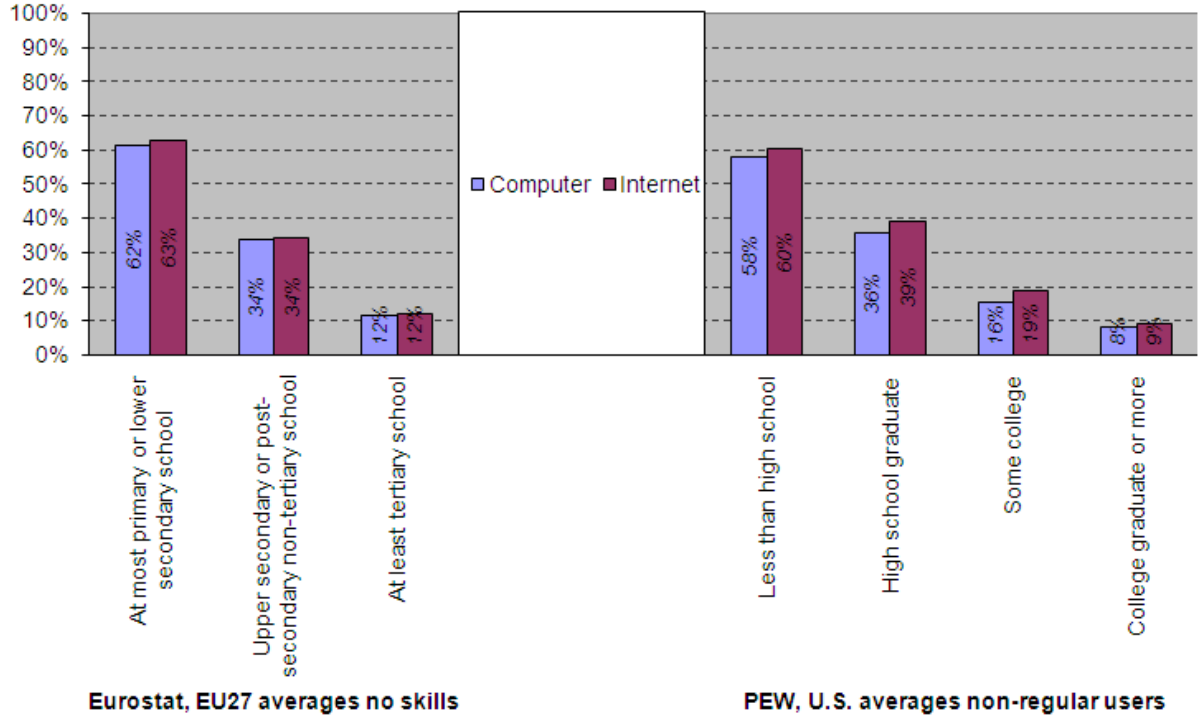


Figure 53 below compares Eurostat data on the population with no computer and internet skills with American data on computer and internet non-regular users. Both figures demonstrate similar patterns across educational levels.

Figure 53: Shares with no computer and intenet skills and shares of non-regular users according to educational attainment in the EU and USA, 2007



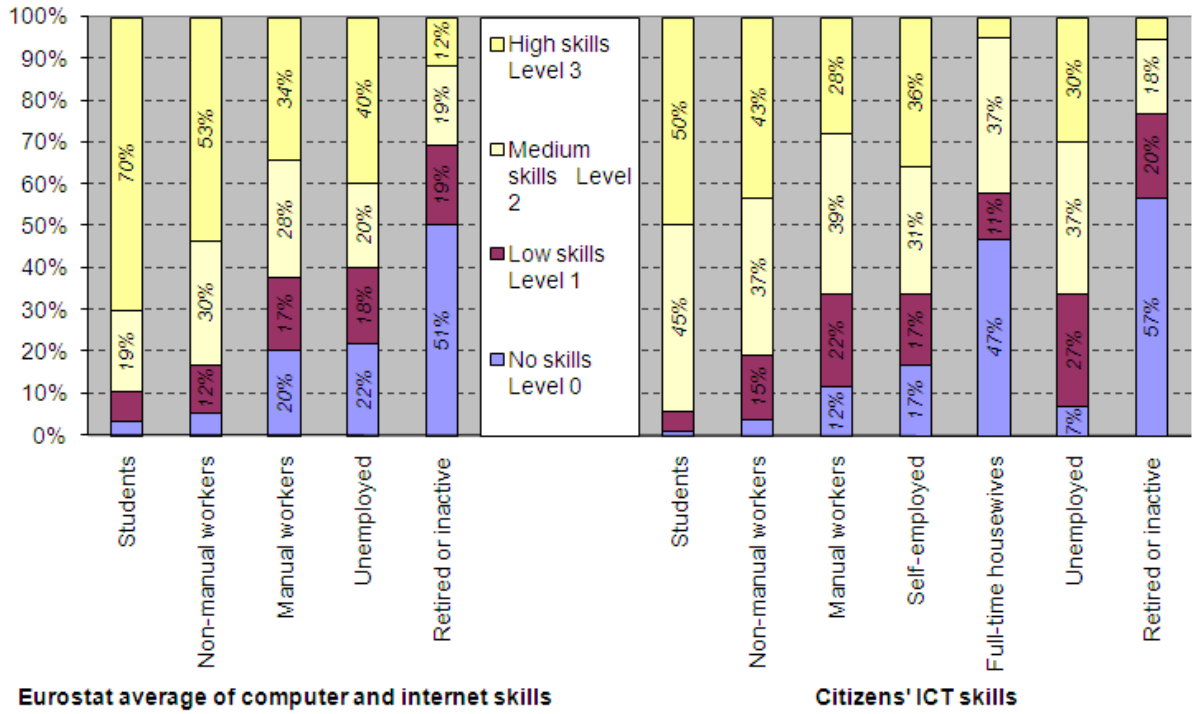
3.5 Employment and Occupation

Employment status and occupational position were the two other attributes other than geographical location that showed clear relationships to computer and internet skills in the Eurostat data examined above. As with age and education, these conjectures hold up when compared to results from other sources.

As with education, however, the Citizens' ICT Skills project classification suggests that some patterns may be obscured by using only four or five employment categories – see figure 54 below (note that the two occupational groups manual and non-manual workers have been substituted for the Eurostat employment category of self-/employed in the figure). In the results from the Citizens' ICT Skills project it thus should be noted that self-employed and in particular their assisting spouses – constituting a category of their own together with full-time housewives – appear to be significantly lacking ICT skills compared to other employed in general (a fairly large segment of the self-employed, however, at the same time have high computer skills levels, which may mirror one-man IT or service businesses).

Moreover, differences in survey questions and delineation of skills levels might have substantial impact on the assessment of computer and internet skills levels of the unemployed, since the share of unemployed with no basic skills varies significantly between Eurostat and the Citizens' ICT Skills project, with no obvious explanation.

Figure 54: The ICT skills of the Danish Population according to employment status, 2007

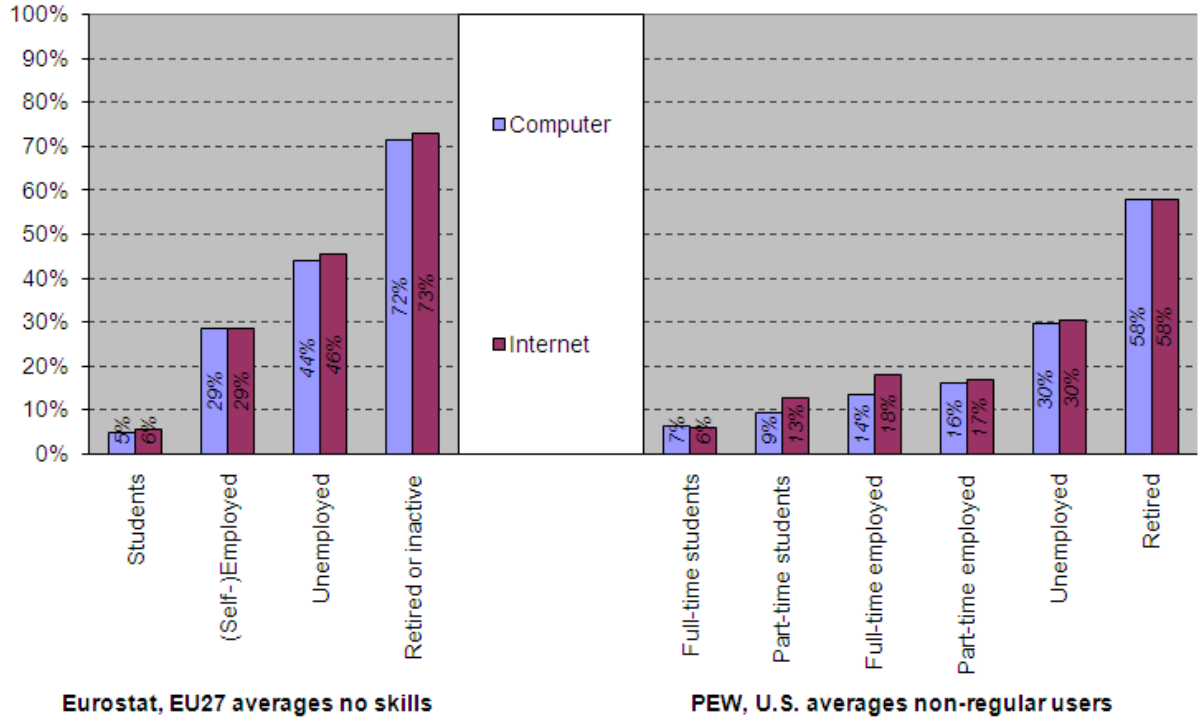


Results from PEW presented in figure 55 below are less comparable to Eurostat due to the combination of questions regarding employment and education needed to create a parallel set of categories with some potential overlap between student and employment status (i.e., some respondents are both working and studying). Generally, they confirm the regression in skills

levels from employment over unemployment to retirement found in Eurostat, even if at overall lower levels.

The gap between occupational skills levels is also confirmed by the results of the Adult Literacy and Life Skills Survey from 2003[75]. It showed marked differences between the ability of managers and various manual and non-manual job categories to use computers for task-oriented purposes.

Figure 55: Shares with no skills and shares of non-regular users according to employment status in the EU and USA, 2007



3.6 Income

Income is an often recognised factor related to age and educational attainment, but is still only reported on a voluntary basis in the Eurostat Community Survey and thus has not been presented before. Obviously, possession of computers and access to the internet cost money and affordability still constitutes a key barrier to internet access (even if not the most important). At the very least, sufficient income would appear to be a significant precondition for acquiring greater familiarity with computer and internet use. Indeed, recent research has shown that poor ICT skills are part of the social inheritance in low-income families, much as poorer reading and maths skills are[76].

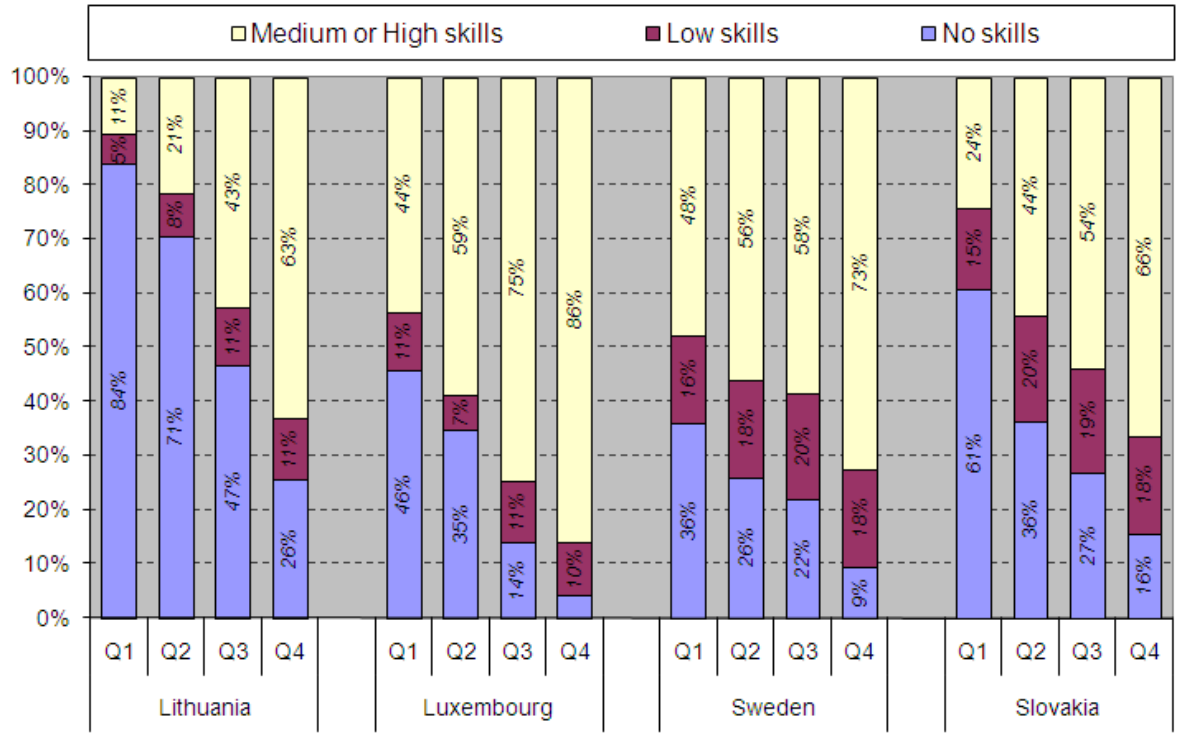
Accordingly, it is hardly surprising to find a positive relationship between income and skills levels in the available Eurostat data as shown in figure 56 below (although not shown graphically, available Eurostat data with the exception of Sweden display a similar pattern for

[75] See footnote 59 or reference list in the back.
[76] Statistics Denmark for the weekly newsletter A4 (2007). *Har Du ikke Internet? ("Don't You Have Internet?")*. www.ugebreveta4.dk/2008/200813/Baggrundoganalyse/HarDuIkkeInternet.aspx

internet skills, only skills levels are generally lower across income groups). Nor is it surprising to find comparable progressions in almost every source available in so far as they consider income levels at all.

It is noteworthy in the present context, though, that while the Adult Literacy and Life Skills Survey from 2003 identifies income as the single most important factor in explaining access to and use of ICT, it does not find an equal progression across all income levels. Only between the second, third, and lowest quartiles do differences emerge. This suggests the notion of an income threshold where income no longer presents an important barrier – a notion also supported by a corresponding levelling off in skill proficiency with increasing income in the Citizens' ICT Skills project at the higher end of the scale.

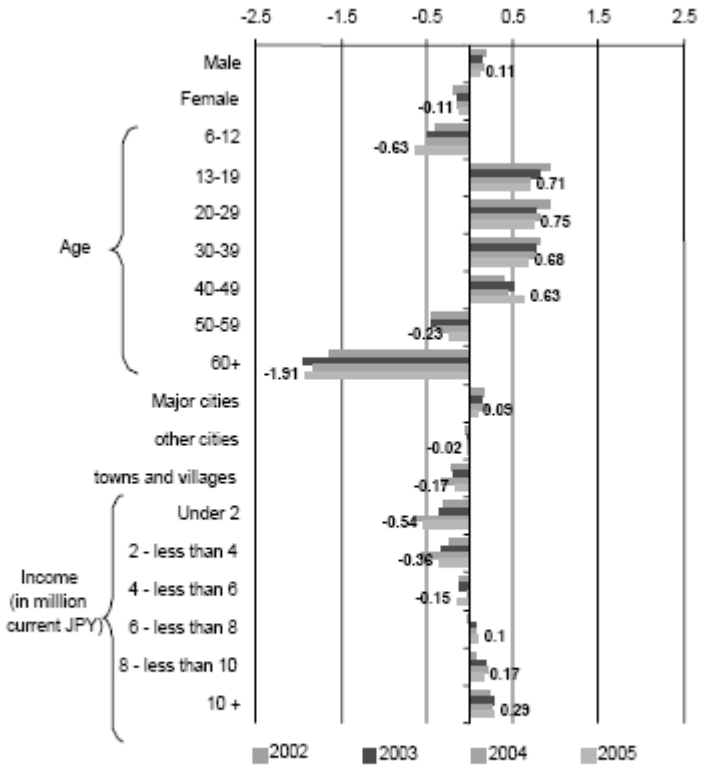
Figure 56: Computer skills according to household income quartiles, Eurostat 2007



Not all monitoring initiatives demonstrate the notion of income thresholds, not even those mainly concerned with basic usage patterns as the Japanese 2005 Communications Usage Trend Survey[77], which incidentally concomitantly illustrates once again the dramatic drop-off in the likelihood of internet usage among the elderly as illustrated in figure 57 below.

[77] Referenced in *Broadband and ICT Access and Use by Households and Individuals* by the OECD Working Party on the Information Economy (2007). www.oecd.org/dataoecd/44/11/39869349.pdf

Figure 57: Impact of demographic factors on internet usage by Japanese households



1. The impact rating is determinate via multivariate analysis using qualitative data for both predictor and non-predictor variables, and demographic characteristics as the predictor variables. A positive figure indicates a factor promoting Internet usage, while a negative figure indicates a factor hindering it.

Working Party on the Information Economy, OECD (2007). Broadband and ICT Access and Use by Households and Individuals.

3.7 Minorities

The above-mentioned dynamics of age, education, and income are all part of the convoluted issue of DL among cultural and ethnic minorities.

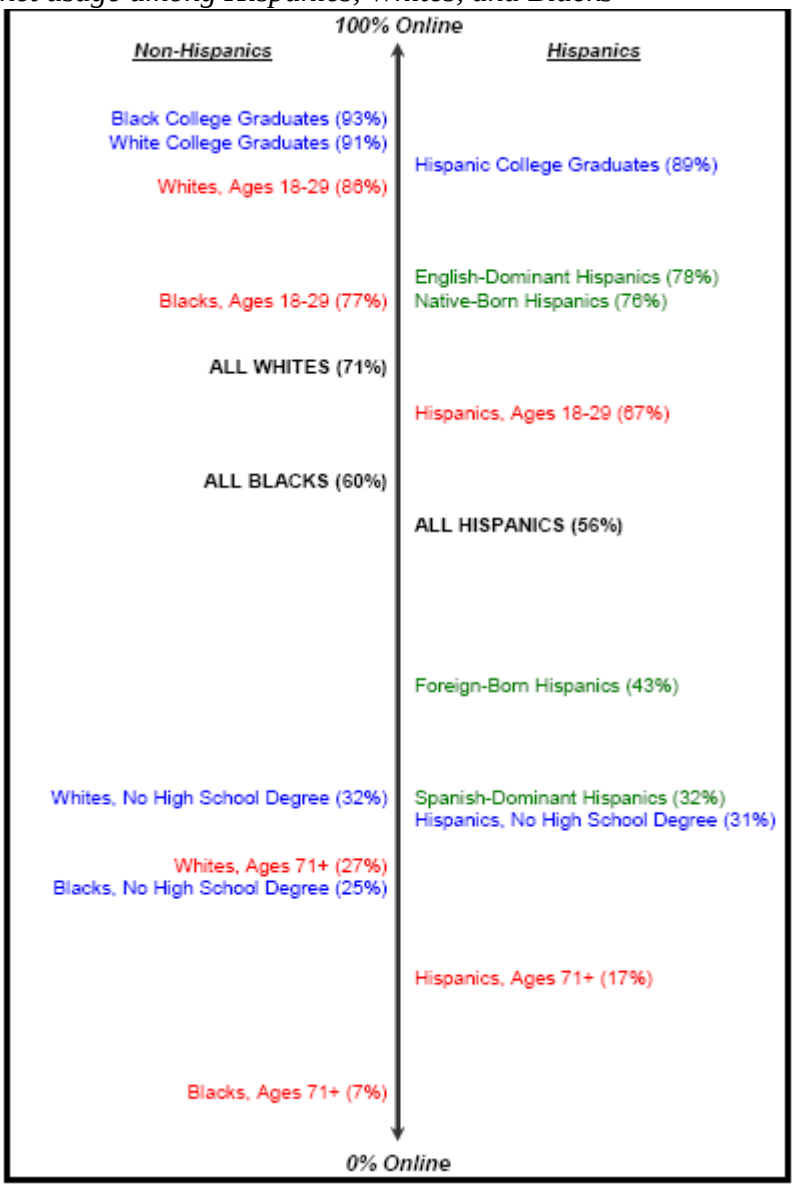
While questions concerning cultural and ethnic factors are not dealt with in the Eurostat Community Survey due to the special requirements in order to produce reliable results (overrepresented samples, bilingual interviewers, etc.), these demographic groups frequently appear at the bottom of comparisons when they are included in surveys. An Australian survey on household use of information technology from 2006-07 finds that 39% of individuals born overseas in non-English-speaking countries do not use the internet, compared to only 29% and 26% respectively of those inidividuals born in Australia or in another English-speaking country[78]. The slightly larger percentage of Australian-born who do not use the internet, moreover, is likely skewed by the inclusion of the indigenous population. Among this group, approximately 40% are non-users. Several American surveys and studies also exist, which unrelentingly place especially Hispanics or Latinos among the least likely to use the internet, whites among the most likely, and African Americans somewhere in between. For instance, a large-scale 2007 survey by PEW/Internet of Latino online behaviour finds that only 56% of

[78] Australian Bureau of Statistics (2007). *Household Use of Information Technology*. www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8146.02006-07?OpenDocument.

all Hispanics use the internet compared to 60% of all African Americans and 71% of all whites[79].

Yet the same survey shows that much of the difference between cultural and ethnic groups is explained by the general demographic and socio-economic characteristics of each group. In short, the Hispanic population is younger, less educated and poorer than the non-Hispanic population. When simply controlling for education, internet usage levels are actually quite similar (blue groups in figure 58 below).

Figure 58: Internet usage among Hispanics, Whites, and Blacks



PEW Internet & American Life Project (2007). Latinos Online.

[79] PEW Internet & American Life Project (2007). *Latinos Online*. www.pewinternet.org/pdfs/Latinos_Online_March_14_2007.pdf

The significance of language abilities figures just as prominently in the findings, as Latinos who do not speak and read English fluently are much less likely to be internet users. This is compounded by the fact that it is disproportionally the older Hispanics (and to some extent newcomers) who may have difficulties mastering the intricacies of their new language. At the same time, however, the diversity of national origins and the unique socio-economic profile, history, and mix of native born and immigrants within each group makes it difficult if not misleading to make generalisations.

Another recent study by PEW/Internet on mobile access to data and information emphasises that while Hispanics and African Americans tend to lag behind whites in internet use, they may actually be leading in some aspects of technology use – for instance in the use of mobile phones[80].

Almost three in four Hispanics who own a mobile phone thus have sent or received a text message at some point and two in five do it on a typical day (73% and 42% respectively), whereas only half of all whites with mobile phones have sent or received a text message at some point and only about one in four do it on a typical day (53% and 28% respectively).

In addition, Hispanics and African Americans are more likely to take a picture, play music, and/or send an instant message on their mobile phone. More than half of Hispanics and African Americans find that it would be harder to give up their phone (54% and 51% respectively) than to give up the internet (43% and 37%) or any other of the media listed in the survey (among whites the corresponding shares are 49% and 44%).

Similar findings regarding preferences for media platforms emerge from a British study by Ofcom of take-up and consumption patterns[81]. Like PEW/Internet, Ofcom found in a 2006 survey that even when controlling for age, cultural and ethnic minorities in particular are more avid users of mobile phones than the British population in general. Moreover, the Ofcom study found that minority groups are more positive towards digital television and they understand its potential as a multiplatform – not least because digital television provides access to channels with a specialist or ethnic focus in continuation of minority groups' extensive use of cable and satellite for the same purposes.

In a similar vein, an American study finds a significant relationship between the probability of immigrants having a home computer or internet access and the internet use rate of their home country[82].

3.8 Sufficiency and barriers to improvement

Beyond the mere breakdown of skills levels within demographic and socio-economic groups, the Citizens' ICT Skills project is of interest as it also investigated the sufficiency of ICT

[80] PEW Internet & American Life Project (2008). *Mobile Access to Data and Information*. www.pewinternet.org/pdfs/PIP_Mobile.Data.Access.pdf

[81] Office of Communication (Ofcom) (2007). *Communications Market Special Report – Ethnic Minority Groups and Communications Services*. www.ofcom.org.uk/research/cm/ethnic_minority/

[82] Fairlie et al. (2006). *Crossing the Divide – Immigrant Youth and Digital Disparity in California*. cjtc.ucsc.edu/docs/digital.pdf

skills along the same parameters as Eurostat. This includes questions concerning the perceived need of individuals in various occupations to strengthen their ICT skills.

Interestingly, the survey found that there may be little relationship between current skills levels and future needs (or the perception thereof). Thus, employees in the sectors of agriculture, construction, and transport collectively have comparatively weak ICT profiles, yet they tend not to see much need for better skills. Employees in the services and public sectors as well as the trading sector, on the other hand, tend to perceive a need for better skills, although their ICT skills on average are quite proficient for the type of work carried out. This discrepancy in the findings from the Danish study (see figure 59 below) potentially could be explained by a higher penetration of ICT within the latter sectors, which indirectly would substantiate the country patterns observed in Eurostat to the extent that sector sizes vary from country to country.

Moreover, note that the divide between employees who have opportunities to improve their ICT skills through daily job functions versus those who do not can hamper labour market mobility insofar as those workers who do not use ICT at work are likely to have less job opportunities than those who do. It would therefore be of interest to have more data on where people in different employment situations and performing different types of jobs access different types of ICT services; at home, work, educational institutions, or PIAPs. For policy purposes it would also be of relevance to have more micro-data on the correlation between companies' innovation and competitiveness strategies and their overall ICT-intensity[83].

Figure 59: ICT skill level and perceived need to strengthen ICT skills according to occupational sector, Citizens' ICT Skills project 2007

		Proficiency at ICT				Perceived need to strengthen ICT skills				
		Level 0	*Level 1*	*Level 2*	*Level 3*	*Strong*	*Some*	*Limited*	*None*	*Don't know*
Trade	*Agriculture*	28	25	38	9	15	27	27	27	3
	Manufacture	5	23	40	32	34	31	18	15	2
	Construction	20	19	32	29	19	31	16	31	3
	Wholesale and retail	3	10	45	43	30	40	23	8	0
	Hotels	0	31	46	23	33	25	17	17	8
	Transport	22	26	26	26	18	21	14	43	4
	Public sector	6	21	38	35	38	35	14	11	3
	Business service	3	8	36	53	49	25	15	9	2
	Total	8	17	37	37	35	31	16	16	2

Percentages of individuals in each occupational sector

The Citizens' ICT Skills project enquired about factors which may prevent the Danish population from acquiring additional and better skills than it presently has. The results shown in figure 60 appear to run contrary to expectations, as the lack of need and interest are by far the most important reasons indicated. Conversely, lack of time increasingly becomes the main

[83] See DG Enterprise: Global Sourcing of ICT and Software Services. Technological Institute, 2008.

barrier for individuals with higher skills levels, while economic barriers appear to play a limited role (at least in the Danish context). Combining the Danish findings and the Eurostat data indicates that there may be a ceiling to the level of improvement that may be expected – as long as the ability to use ICT is not perceived as a genuine benefit for some groupings.

Figure 60: Most important barriers to becoming better at using computers and the internet according to ICT skill level, Citizens' ICT Skills project 2007

	Level 0	Level 1	Level 2	Level 3	Total Population
Lack awareness	11	10	7	3	7
Lack time	6	26	34	42	29
Lack need	25	18	11	6	14
Others do it for me	1	6	2	1	2
Lack interest	53	36	23	9	27
Limited skills	7	11	6	4	7
Lack access	13	5	2	2	5
Can't afford	2	1	2	6	3
Lack educational/course offer	2	6	3	3	3
Lack help from others	1	2	1	1	1
Other reasons	17	18	15	15	16

Percentage of individuals with each skills level

It is, however, also evident from the Danish Citizens' ICT Skills project (as presented in figure 61 below) that while the most proficient users can probably teach themselves how to perform new tasks, a significant share of the least proficient would prefer the public sector to offer courses on ICT for them or they do not know how to strengthen their ICT skills, which could suggest that some groups need prodding to begin to learn ICT skills.

Figure 61: Preferred means for strengthening ICT skills according to ICT skill level, Citizens' ICT Skills project 2007

	Level 0	Level 1	Level 2	Level 3	Total Popu-lation
Course offered by employer or educational institution	4	23	38	46	31
Course offered by the public sector	15	17	8	3	10
Course chosen/paid by myself	11	20	10	9	12
Instruction from colleagues	2	10	16	16	12
Instruction from friends/family	26	39	36	23	31
Self-taught	10	25	35	53	34
Don't Know	37	6	3	1	10

Percentage of individuals with each skills level

4 Monitoring and measurement initiatives identified in the compiling of the country reports

The section contains a brief review of the monitoring and measurement initiatives identified in the country reports otherwise forming the basis for Topic Reports 1 and 3. It furthermore provides a cross-cutting analysis of these identified initiatives including monitoring initiatives from non-European countries, in particular the USA, Canada and India, for which digital literacy country reports have been compiled.

The review looks at which types of measurement tools and indicators are most widespread in relation to digital literacy for potentially marginalised individuals and communities. It furthermore covers the most important methodological aspects of the various types of monitoring and measurement tools and indicators.

The review is anchored in monitoring and measurement tools and indicators supported by the EU and in particular Eurostat. This is achieved through a simple run-down of the identified initiatives across the various dimensions which are:

- Purpose of the identified monitoring initiatives
- Regularity of the monitoring initiatives
- Scope of the monitoring initiatives
- Methods used by the monitoring initiatives
- Groups targeted and apparent break downs.

The review aims to clarify which types of initiatives are most widespread. It also provides an initial look at the indicators utilised and target groups identified and where these might differ from those used by Eurostat.

Overview of measurement and monitoring initiatives
A total of 94 monitoring and measurement initiatives have been identified and are included in annex 19. The monitoring and measurement initiatives identified and included in the validated digital literacy country reports can be defined in two ways: in terms of type and/or in terms of their apparent focus.

Most of the initiatives are implemented by a national authority, most often a ministry or educational institution. However there are also other private, public, and public/private partnership monitoring initiatives.

Most of the initiatives focus on infrastructure and supply-side information, as well as on more traditional indicators for take-up and usage. Most indicators relevant to the monitoring and measurement of digital literacy are collected by national statistical offices/agencies and transferred to Eurostat. Data are thus the same. That said, there are some national variations; some countries collect additional data, while others do not yet gather the full data set equivalent to the Eurostat Community Survey (e.g. some countries collect data on barriers to having internet at home, while others have not collected data on how people have obtained their computer and internet skills).

The few initiatives that are being implemented at the local, regional or third sector level tend to be "one-offs" – i.e. initiatives such as surveys or reports that are conducted once and often used for specific policy measures (e.g. programme evaluations or reviews of e-service use). These include as well in several cases surveys conducted by for instance research institutions who are working in the ICT domain such as by the PEW Research Center in the USA, or the study "Achterstand en Afstand – Digitale Vaardigheden van Lager Opgeleiden, Ouderen, Allochtonen en Inactieven" (Disadvantage and Distance, The Digital Skills of the Lower Educated, the Elderly, Immigrants, and the Economically Inactive) performed by the Dutch SCP, the Social and Cultural Planning Office of the Netherlands[84].

Three basic types of initiatives exist:

- National or regional statistical offices delivering data to Eurostat and/or with similar methodology and indicators to Eurostat. *These initiatives make up the majority of the identified initiatives. In other words more than half of the identified initiatives*.
- Summative evaluations of national or regional policy initiatives, programmes, and projects, with focus on the outcome and impact of initiatives, but with no specific focus on the impact on skills levels within the intended target groups. *These initiatives represent a minority of initiatives*.
- Actual monitoring and measurement initiatives in the form of recurring appraisals (least common) or one-off studies and reports (most common) with a specific focus. *These initiatives also represent a small percentage of the total initiatives*.

In relation to the further analysis of the monitoring and measurement initiatives identified, these have been divided up into two different types:

1) Large-scale monitoring and measurement initiatives with some apparent alternative conceptions of digital literacy. These will be further analysed in section 4.1.
2) Initiatives targeting specific disadvantaged groups and communities but which do not necessarily have a clear conception of or focus on digital literacy. It should also be mentioned that the monitoring and measurement initiatives identified most commonly have a universal focus, i.e. age, gender, education, employment, occupation, income, or location of the "representative" population samples. It is thus rare that potentially marginalised and disadvantaged groups are the subject. Nevertheless, a number of initiatives have been identified with this focus and will be analysed further in section 4.2.

4.1 Large-scale measurement and monitoring initiatives

Purpose of the identified monitoring initiatives

A common characteristic of the large-scale monitoring initiatives identified is that they serve the purpose of contributing to policy development at national and to some extent (IALS and SIBIS) international level. The International Adult Literacy Survey (IALS, later followed by the Adult Literacy and Life Skills Survey, ALL[85]) with participation of 20 OECD countries,

[84] www.scp.nl/publicaties/boeken/9789037703160/Achterstand%20en%20afstand.pdf
[85] Statistics Canada and OECD (2000). *Literacy in the Information Age – Final report of the International Adult Literacy Survey* (www.oecd.org/dataoecd/24/21/39437980.pdf) together with Statistics Canada and OECD

included a component on information and communication technologies with the purpose of assessing digital literacy levels for future policy directions. The survey covered other literacy areas like reading, writing, and numeracy, in addition to ICT and internet use.

Whereas IALS was developed within the international collaboration between OECD countries, the SIBIS project was a research project funded by the European Commission under the IST framework programme with the dual purposes of informing policy makers and research bodies about the advance of the information society in Europe through development of indicators for a range of topics.

The advancement of the information society has also been a growing national policy concern. An example is the "Information Literacy Survey" carried out by the Ministry for Informatics and the STEM/MARK polling agency in the Czech Republic. As the uptake of ICT was expanding, the intention of the study was to arrive at a common definition of the term "information literacy" as the basis for measuring the level of deployment of information and communication technology in the Czech Republic.

Similarly, the study on digital literacy in Slovakia by the Institute for Public Affairs aimed to assess the level of digital literacy in the population and the population's readiness to use ICT[86].

In Denmark, the Citizens' ICT Skills project was embedded in the Danish Government's strategy process for the knowledge society in 2020. The main purposes of the study were to assess the Danish citizens' current ICT-skills and habits and what future level of ICT-skills would likely be required, with a view to assessing the proportion of Danish citizens who would not be able to fulfil the required demands of a future knowledge society, in order to form a basis for policy-making.

Regularity of the monitoring initiatives

The regularity of the initiatives varies from biannually and annually, to one-off and irregular monitoring activities.

Some initiatives have been one-off monitoring activities like the Czech Republic initiative STEM/MARK and the digital literacy study in Slovakia in 2005. Others like the "Understand" project and the SIBIS projects have been limited by the funding period as they were financed as European projects (the "Understand" project was an Interreg IIIc project involving ten regions all across Europe while the SIBIS project was funded within the 6th framework programme of the European Commission).

There are also initiatives that have been commenced recently and are planned to be repeated on an annual basis like the Danish and the Norwegian surveys to measure ICT skills of the citizens in the two countries.

(2005). *Learning a Living: First Results of the Adult Literacy and Life Skills Survey* (www.statcan.gc.ca/pub/89-603-x/2005001/4071714-eng.htm), and Murray, Clermont & Binkley (2005), *Measuring Adult Literacy and Life Skills: New Frameworks for Assessment* (www.statcan.gc.ca/pub/89-552-m/89-552-m2005013-eng.pdf).

[86] www.ivo.sk/3798/en/projects/digital-literacy-in-slovakia?lang=EN

The US Educational Testing Survey has already been repeated annually for several years since it was developed as a framework in 2001. Similarly, the Swedish Internet Barometer (although with changing titles) has been repeated annually since 1979 (originally it was focused on other media like TV, radio and newspapers – today it also covers the internet and mobile telephones), and the VOX barometer in Norway is repeated bi-annually and has been run since 2004.

Scope of the monitoring initiatives

The initiatives vary vastly in scope. Some initiatives cover regions in Europe; examples are the "Understand" project[87] and the "Sourir" network[88] – a network of French speaking regions jointly developing methods and indicators for measuring ICT usage and skills levels – plus to some extent the SIBIS project.

Other projects and by far the majority of initiatives are primarily national in their scope, such as the Czech initiative STEM/MARK, the Danish and Norwegian attempts at measuring citizens' ICT skills, the digital literacy study in Slovakia, and the "Internet Barometer" in Sweden.

There are larger initiatives like the IALS/ALL and studies by EUROSTAT and the OECD that measure digital literacy levels for students and adults at an international level. Eurostat covers the EU Member States, Iceland and Norway with its Community Survey on ICT usage in Households and by Individuals, the OECD covers its member countries, the IALS study covers 20 countries, and the ALL survey was carried out in 6 countries (namely, Bermuda, Canada, Italy, Norway, Switzerland and the USA as well as in the state of Nuevo León in Mexico). At this stage it is not yet fully clear how many countries will participate in the planned PIAAC initiative.

Methods used by the monitoring initiatives

All monitoring initiatives used telephone interviews techniques apart from the IALS/AAL studies which were conducted face-to-face in respondents' homes. This study consisted of a background questionnaire with a number of questions on socio-economic variables that was administered by the interviewer using computer-assisted interviewing techniques. Once completed, a short booklet of six simple tasks (Core Task booklet) was provided along with a pencil and eraser. The answers provided in the booklet were scored by the interviewer, and if respondents correctly answered three out of the six questions, they were offered a longer task booklet. In all, 28 task booklets were constructed by combining two blocks of items from a pool of eight blocks (four measuring prose and document literacy, two measuring numeracy, and two measuring the problem-solving domain). Each block had an average of 40 questions related to about 15 specific stimuli (additional testing material such as a newspaper, calculator, ruler and templates were provided whenever appropriate). Computer use was covered by the background questionnaire.

The initiatives identified have used different approaches and indicators to measure and monitor digital literacy levels. An example is the SIBIS project (2002-2003) which monitored information society indicators for the EU15 and the ten candidate countries for a number of

[87] www.understand-eu.net/
[88] www.sourir.org/

themes including digital literacy. The study used self-assessment scores with surveys in the general population and among decision-makers. The topics covered were:

- Telecommunications and access
- Internet for research and development
- Security and trust
- Education (including digital literacy)
- Work, employment and skills
- Social inclusion
- e-Commerce
- e-Government
- e-Health

The SIBIS project covered the digital divide in the form of basic access divides and utilisation divides, malicious activities and their prevention, attitudes towards security issues, and perceptions on access barriers. Digital literacy specifically was addressed covering skills acquisition and skills provision in terms of confidence levels in relation to certain tasks and skills requirements. The SIBIS project used the COQS index as a measure that combines four types of skills in using the internet into an overall "digital literacy" score. The skills included are:

- Communicating with others (by e-mail and other online methods)
- Obtaining (or downloading) and installing software on a computer
- Questioning the quality of the source of information on the internet[89]
- Searching for the required information using search engines.

The "COQS" index combines these items (based on self-assessment) into a single scale with a range from 0 to 3, with "0" representing the lowest possible digital literacy score and "3" representing the highest.

In the ALL framework, three types of ICT relevant proficiencies are distinguished:

- Cognitive Proficiency (i.e., prerequisite foundation skills such as literacy, numeracy, problem solving, and spatial/visual literacy)
- Technical Proficiency (i.e., the basic components of digital literacy such as knowledge of hardware, software applications, and networks)
- ICT Proficiency (i.e., the integration and application of cognitive and technical skills to access, manage, integrate, evaluate, and create information digitally[90]).

[89] This sub-item is at present the only one not included in the Eurostat Community survey, whereas the questions used in relation to the other three dimensions in the SIBIS digital literacy index all are identical to questions used by Eurostat (reflecting their common background in the e-Learning summit Digital Literacy Workshop in Brussels 10-11 May 2001).
[90] These five components are inspired by the ETS framework also mentioned below.

In practice, though, the ALL survey measured participants' skills in four main areas: prose literacy, document literacy, numeracy, and problem solving. Respondents were then classified into one of five skills levels. Literacy proficiency was defined as "the ability to understand and employ printed information in daily activities, at home, at work and in the community. It is not about whether or not one can read but how well one reads". In terms of digital literacy, the survey collected data on the use of and familiarity with ICT at the individual level, including a series of self-assessment questions on ICT use, perceptions of experience, and degree of comfort with ICT. Specifically, data were collected regarding:

1) Access rates to computers and internet
2) The relationship between ICT use and (other) literacy skills
3) The determinants of ICT use, including income, age, gender, educational attainment, and occupation
4) Outcomes associated with the use of ICT in combination with literacy skills.

Building on the experiences from IALS/ALL and the OECD initiative, PIAAC is set to include new component on problem-solving in technology-rich environments - that is, direct testing with the use of ICT[91].

Like the Educational Testing Service in the USA, the recent Danish and Norwegian initiatives to measure citizens' digital literacy levels have been based on the measurement of seven proficiencies in individuals' ICT abilities - **define, access, manage, integrate, evaluate, create,** and **communicate.**

In the USA, test results are based on real assessments of practical problem-solving tasks and are used to assess individual student proficiency, plan curricula to address ICT literacy gaps, inform resource-allocation decisions, and provide evidence for accreditation. In Denmark and Norway, on the other hand, the respondents are asked to determine just how confident they are at conducting different tasks using computers and mobile phones (just one question relating to mobile phones). The ETS defines ITC literacy as the ability to use digital technology, communication tools, and networks appropriately to solve information problems in order to function in an information society, including the ability to use technology as a tool to research, organise, evaluate and communicate information, and the possession of a fundamental understanding of the ethical/legal issues surrounding the access and use of information.

Monitoring studies have also been conducted with more simplified definitions of information literacy. An example is the study in the Czech Republic by STEM/MARK. STEM/MARK thus defines a person as literate in information technology, if she/he is:

- Able to find and generally process information, using standard computer hardware and software
- Familiar with selected computer programmes and capable of using them efficiently (terminology, text editors, table editors, graphic editors, internet and e-mail)

[91] www.oecd.org/els/employment/piaac

In summary, the measurement and monitoring of initiatives identified define digital literacy in different ways and use different methods and indicators for measuring the skills. Nevertheless, there is some degree of overlap in the approaches where some methods are more detailed than others and emphasise some skills more. On the other hand, there are initiatives that simply measure behaviour and use and not actual skills levels.

Target groups addressed by the monitoring initiatives

Several of the initiatives cover the population at large. However, even that is defined in different ways. For instance, the Swedish Internet barometer covers all persons at the ages of between 9 and 79. The Danish and Norwegian studies of digital literacy skills cover the population at large at the ages of 16 and over (in other words there is no upper limit).

Similarly, the SIBIS project targeted adult population in terms of all persons aged 15 and over, living in private households.

The digital literacy study in Slovakia in 2005 was conducted on a representative sample of the entire Slovak population, increased by respondents of the age group 14-17 years.

At present the audiences targeted by the Educational Testing Service in the USA cover college-age students, although it could have implications for primary and secondary education institutions, especially high school, as well[92].

However, apart from the IALS/ALL studies, these monitoring initiatives were unable to provide specific data on ethnic groups or disabled people.

Breakdowns and findings

The identified initiatives break down the respondents in several different ways. Some initiatives have identified types of actors and others have had specific target groups in mind. Most of the initiatives break down the respondents according to the key socio-economic and demographic determinants including income, age, gender, education, employment, and geography.

The IALS/ALL studies were specifically aimed at analysing official language minorities, for instance in Canada covering Francophones living outside of Quebec and Anglophones living inside Quebec, and in addition allow for the breakdown of respondents according to language.

In the Danish and Norwegian surveys of citizens' ICT skills, the following disadvantaged groups were identified:

- Elderly
- Economically inactive
- Unemployed
- People with low education and qualification levels
- Women

[92] Recall that the ETS stands behind tests such as the SAT and GRE college placement tests and the TOEFL English as second language ability test as well as the ICT test *iSkills* (see further footnote 70 or www.ets.org).

In Denmark, further analysis has been carried out on these data[93]. The purpose has been to analyse whether a digital divide can be explained by socio-economic determinants. Results of the analysis show that children of single-parent families are less likely to develop strong digital literacy skills than those of two-parent families. As also OECD data indicate, digital literacy skills levels are not just explained by ease of access to technology, but also by the support children acquire from parents[94]. The Danish study comprises high- and low-income families. The data indicate that children in low income families receive less support compared to high income families. Hence, low digital literacy skills among low income parents are likely to be transferred to children of low income parents, even if the children technically have access to more or less the same equipment as children from high income families.

STEM/MARK identifies five types of (non-)users based on their survey of digital literacy levels in the Czech Republic:

- *Technological "leaders"* (proportion of the population: 7%). ICT technologies form an integral part of their lives. They pass their attitude on and act as the leaders of the knowledge economy. Their level of computer literacy considerably exceeds the aforementioned basic parameters (78% of technological leaders of working age are literate in information technology).
- *Implementers* (proportion of the population: 25%). They have above-average ICT skills and believe that computer literacy is important for their further professional development. They have a positive attitude to information technologies, even though use of ICT may not be their preferred leisure activity.
- *Routine users* (proportion of the population: 7%). Young people (18-29 years) relatively familiar with information technologies, which they regard as a necessary routine only marginally affecting their future position.
- *Showing interest* (proportion of the population: 38%). Individuals unfamiliar with information technologies, yet aware that they cannot afford to ignore ICT. Their common feature is a certain "fear" of information technologies but not aversion.
- *Refusing* (proportion in population: 23%). Persons with an absolutely inert attitude to information technologies. They do not believe that information technologies can improve their life circumstances, and at the same time they have almost no knowledge of ICT.

Interestingly, a similar analysis has been performed on the data from the Eurostat Community Survey by SINTEF in Norway as part of the EU's CITIZEN MEDIA initiative[95]. Covering data from Germany, Austria, and Norway, the researchers find that different population groupings have their own ways of using or not using ICT. The study identifies four typical patterns of use among major population groups in the countries surveyed:

[93] www.ugebreveta4.dk/2008/200813/Baggrundoganalyse/HarDuIkkeInternet.aspx (in Danish)
[94] www.oecd.org/dataoecd/15/6/38337741.pps (powerpoint presentation)
[95] The Citizens' Media Project, 6th framework program – SINTEF: Patterns of media use among citizens in Europe www.ist-citizenmedia.org:8080/download/attachments/270/D1.1.1_PatternsOfMediaUseAmongCitizensInEurope_V1.0.pdf

1. *Non-users* who do not devote time to ICT. Members of this group are characterised by their relatively high age – 45 or older. They have low levels of income and education, and tend to live in small-size households. (Austria 47%, Germany 39%, Norway 25%).
2. *Average users* who make up the largest group of ICT users, using their PCs and the Internet only occasionally. They have a relatively low level of ICT skills and no other special features (Austria 28%, Germany 51%, Norway 27%).
3. *Instrumental users* who employ ICT primarily for practical purposes and to acquire information such as public-sector Internet services. They have a relatively high level of ICT skills and a high level of education (Austria 15%, Germany 5%, Norway 23%).
4. *Entertainment users* who devote most of their ICT time to entertainment such as game-playing and watching videos or TV on the Internet. They have relatively advanced ICT skills. They are relatively young (although less clearly so in Germany) and the group includes more men than women. Members have a wide range of educational and income levels, since this group includes many students (Austria 9%, Germany 5%, Norway 14%).

In addition, the study identifies a fifth type only found in Norway:

5. *Advanced users* who utilise ICT in many connections and for a range of different purposes. There is a high rate of advanced usage such as programming and web-site design. They use the Internet on a daily basis and are relatively young, with an average age of 32 in contrast with 45 in the remainder of the sample. Most of them are men (80%) and most (87%) have broadband access (sample average 45%). They live in cities and have a wide range of educational levels.

Moreover, surveying existing international studies, the report finds that young people who are major internet users are most likely to be active participants and content producers, resulting in an emerging digital divide between those who merely consume media and those who also produce content (a digital production divide as opposed to a digital consumer divide).

4.2 Initiatives targeting specific disadvantaged groups

Purposes of the identified monitoring initiatives

The "D21" initiative in Germany is the largest public-private partnership in the country, with involvement of government agencies and businesses. Its aim is to enable different target groups to use information and communication technologies (ICT) and to strengthen the development of the innovative use of ICT in Germany. To achieve these goals, the D21 partners initiate non-profit projects like Girls Day, promote the up-take of the electronic health card, and the (N)ONLINER Atlas.

The (N)onliner study in Germany monitors Germany's transformation to an information society with focus on internet use. Furthermore, it focuses on whether certain sub-groups in the population tend to be affected by a digital divide. The study is directly linked to the aims formulated in the general policy "iD2010 – information society Germany 2010"[96]. It monitors

[96] www.bmwi.de/English/Redaktion/Pdf/id2010,property=pdf,bereich=bmwi,sprache=en,rwb=true.pdf

internet use and non-use in the population and analyses the results by employing socio-demographic and socio-economic variables such as gender, age, income, and educational attainment. It also compares results for the different provinces, regions and the west/east divide[97].

The Dutch monitoring initiative "Achterstand en Afstand" (Disadvantage and Distance) is a formative study to assess the level of digital skills of selected disadvantaged groups with the view to providing recommendations for policy actions. More specifically, the study addressed the following questions: how far certain groups in society lag behind in terms of digital skills, the causes of that disadvantage, and its consequences.

In the USA, PEW/Internet explores the impact of the internet on children, families, communities, the work place, schools, health care, and civic/political life[98]. The PEW project is non-partisan and takes no position on policy issues. The PEW project is supported by The Pew Charitable Trusts. The PEW project examines what people do online as they look for information, communicate with others, make transactions, and are entertained. Furthermore, the project uses a range of socio-economic variables to examine how technological advances affect the use of the internet and how the internet affects groups in their working and living environment.

Finally, the PEW project analyses topics such as privacy and security, telecommunications law, the "digital divide", and how the national, state, and local governments use the internet (e-government). The Pew/Internet & American Life Project is one of eight projects that make up the Pew Research Centre (PEW and PEW/Internet will be used interchangeably in the following to imply the Pew/Internet & American Life Project)[99].

A study launched by the Improvement and Development Agency (IDeA) focuses on how to reach socially excluded groups in the UK with special emphasis on access to services as a key element of e-government. Socially excluded groups (and others) are recognised as being at risk of a digital divide because of limitations in access and due to lack of skills and motivation. Accessibility is addressed to a certain extent through web accessibility standards, or legislation such as the UK Disability Discrimination Act (DDA)[100]. Nevertheless, there are serious gaps in the existing understanding of the diverse needs of citizens and how to make e-government inclusive. Digital inclusion is core to this.

In 2006, the IDeA therefore commissioned Citizens Online and IERC Ltd. to produce a report on the digital inclusion activities of local authorities[101]. The report presents an overview of councils' digital inclusion (social inclusion/ICT) activities and identifies good practice in councils' access to service initiatives. The aim is to assist councils in developing equitable access/service strategies and provide guidance on how to mainstream digital inclusion activities.

[97] www.initiatived21.de/category/nonliner-atlas
[98] www.pewinternet.org
[99] pewresearch.org/
[100] The original Disability Discrimination Act (DDA) is from 1995. It has been significantly extended in 2005.
[101] www.idea.gov.uk/idk/core/page.do?pageId=1074872

Another interesting source in the UK is the World Wide Internet project from the Oxford institute[102]. It consists of a series of yearly surveys, mainly in the UK but also in other countries. It measures the evolution in internet use including aspects relating to skills, learning, and support from intermediaries. The skills levels are measured through self-assessment, questioning individuals on how good they believe they are at conducting certain tasks. The findings from the surveys show that students are the most confident in conducting internet tasks, whereas retired persons and women are the least confident.

Regularity of the monitoring initiatives

The Dutch study "Achterstand en Afstand" was a one-off initiative commissioned by the Ministry of Economic Affairs in 2006 and published in October 2007.

The (N)ONLINER Atlas was first published in 2001 as the "Refusers' Atlas" ("Verweigerer Atlas"). Since then the survey has been conducted each year between January and April for release by the end of June. In addition, there are further releases on specific topics/results throughout the year.

The PEW conducts surveys several times a year covering different themes such as who is online, use of online technologies, and online activities among different groups.

The UK organisation Ofcom conducts research on media literacy every year, with coverage of different themes from year to year but also allowing for yearly comparisons.

Scope of the monitoring initiatives

All of the monitoring activities identified targeting disadvantaged groupings (including minority groups) are national in their scope. This is the case for the PEW covering the USA, the Dutch study covering the Netherlands, the Ofcom and Citizens Online/IERC Ltd. studies in the UK, and similar initiatives. Some of the initiatives like PEW Internet project and the (N)onliners Atlas also provide regional analysis of the data collected.

Methods used in the monitoring initiatives

In the USA, the PEW reports and memos are primarily based on national telephone surveys, but also draw from qualitative research methods and data shared by its research partners. PEW has developed a typology building on three dimensions of people's relationship to information and communication technology (ICT):

- *Assets* – Individuals are surveyed about their use of the internet, mobile phones and other devices that connect to the internet (e.g. video and digital cameras), use of services that facilitate digital consumption, participation, and electronic communication.
- *Actions* – Individuals are surveyed about their activities such as downloading audio and video, generating own online content, the variety of things they do with their mobile telephone and computers, and frequency of online use.
- *Attitudes* – Individuals are surveyed as to how ICTs are perceived to be of help to be more productive at work, to pursue hobbies, and to keep up with family and friends, as

[102] www.oii.ox.ac.uk/microsites/oxis/publications.cfm

well as their views on information overload and technology's capacity to offer more control over their lives.

The Ofcom media literacy audit in the UK defines media literacy as 'the ability to access, understand and create communications in a variety of contexts'. The focus is on electronic media, although Ofcom recognises that other stakeholders could be interested in the wider media landscape.

The Ofcom media literacy audit involved the interview of a total of 3,244 respondents across the UK (the interview took place in the respondents' homes)[103]. The audit focuses on four main digital platforms, with analogue TV and radio included where relevant. The four main digital platforms included were digital television, digital radio, the internet, and mobile phones - as these are the ones where there is most divergence between different groups within the UK in terms of understanding, take-up and usage.

The Ofcom media literacy audit provides data on the following indicators:

- Digital media platform use types
- Types of websites and services used
- Reasons for use
- Confidence in use and frequency of use
- Ways of learning how to use digital media platforms
- Attitudes towards security and electronic content
- Attitudes towards content and creativity.

The (N)ONLINER Atlas is based on an annual survey conducted by means of 50,000 computer-assisted telephone interviews (CATI). It draws on a representative sample of the German population from 14 years of age and up. The aim is in the future to define the long-term developments of on-liners – what they do and what their needs are.

The D21 partnership intends to cover certain topics as an annual event. For the group of "nonliners" the intention is to uncover their reasons for not being on-line by asking them directly about their ICT behaviour and attitudes.

The research conducted for the Improvement and Development Agency (IDeA) on how to reach socially excluded groups in the UK was undertaken in two phases. The first phase was a telephone survey of 78 local authorities taken from a representative national sample. The telephone survey investigated the extent of social exclusion problems and the use of technology. In addition, face-to-face interviews were undertaken with 21 authorities showing good practice in digital transformation of public services[104].

Groups targeted by the monitoring initiatives; breakdowns and findings

The Dutch study, "Achterstand en Afstand" commissioned by the Ministry of Economic Affairs in 2006 examines the differences in digital skills between young and old and between persons with high and low educational attainment levels. It compares the economically

[103] www.ofcom.org.uk/advice/media_literacy/medlitpub/medlitpubrss/medialit_audit/adult_questionnaire.pdf
[104] Key findings and recommendations are available here: www.idea.gov.uk/idk/core/page.do?pageId=1074872

inactive and ethnic minorities with those in employment and the indigenous population. It finds that age and educational differences have a large impact on digital skills levels, but that overall skills levels only vary slightly between actives and inactives and between minority and indigenous population groups.

At the same time, though, the study has found that skills levels vary across domains, and thus for instance between functional and entertainment activities. Moreover, the study documents vast differences in skills levels within each disadvantaged group, for instance between immigrants of different nationalities. Differences also pertain in the reasons for not acquiring better digital skills, findings which could assist in targeting potential policy actions to the specific groups.

Indicators addressed by the Dutch study are:

- Use of different functional and entertainment applications
- The reasons for use and non-use
- The choice of how skills are acquired
- Where ICT is used and how frequently
- The level of access and internet connection
- How digital literacy levels affect work and lives.

The (N)ONLINER Atlas in Germany produces socio-demographic data that allow for analysis in terms of age, gender, income, education/degree, employment status, and region/post code. In addition, the annual trend topic analyses attitudes and behaviour of on-liners in relation to specific topics/trends on the internet. In particular, the Atlas has focused on the target group of 50+ users and non-users. Results have led to projects like internet basic courses for 50+, the establishment of a partner network, and project groups with companies to define technical standards (user friendliness aimed at 50+ target groups). These topics have been the following:

- 2006 - Security on the internet
- 2005 - Future online applications and services
- 2004 - Innovation and mobile internet
- 2003 - Online job search.

The American PEW covers the following ethnic groups in its reports:

- White Americans
- Black Americans
- Hispanic.

In addition, PEW conducts research on Latinos online, which is broken down into even more detailed groupings:

- Foreign born Hispanics
- Spanish dominant Hispanics
- Native born Hispanics

- English dominant Hispanics.

Combined with the two other non-Hispanic groups above, these can be further broken down by educational background, age, and income.

Finally, PEW also examines the online access and activities of disabled persons as well as the use of online health services and the use of other activities of persons with disabled members in their households.

In the UK, Ofcom in June 2007 analysed the use of communication services by different ethnic groups[105]. The study found that ethnic minority groups differ from the general population in that they tend to be younger, be larger in household sizes, be more likely to have children in the household, have higher unemployment rates, and have a lower income profile. These factors have a direct effect on the use of communication services. For instance, youth from ethnic minority groups are slightly more likely to have mobile telephones. The Ofcom study covers the following ethnic groups: Asians (Indians, Pakistanis), Black Caribbeans, and Black Africans.

In addition, Ofcom has conducted a media literacy audit in 2006 which covers children and adults, but also different ethnic groups and the disabled. The audit of the disabled covers three subgroups – visual impairment, hearing impairment, and mobility impairments.

A number of monitoring initiatives introduce typologies of ICT users with variable digital literacy levels. These initiatives include the Danish study about Citizens' ICT Skills conducted in 2006/07. Based on information about use of and confidence in ICT skills as well as information about attitudinal, behavioural, educational, employment, age, and gender differences, the study produced 11 typologies[106].

PEW research identified ten different types of ICT users. Four of the ten types of users were characterised as persons with few ICT assets. Two groups of users were characterised as having medium assets, and the remaining four groups were characterised as being elite tech users[107].

[105] www.ofcom.org.uk/research/cm/ethnic_minority/ethnic_grps.pdf
[106] See further Chapter 5 in the report (Danish only) www.itst.dk/e-laering-og-it-faerdigheder/publikationer/borgernes-ikt-ferdigheder-i-danmark/Borgernes%20IKT-ferdigheder%20i%20Danmark.pdf
[107] See further PEW Internet & American Life Project (2007). *A Typology of Information and Communication Technology Users*. www.pewinternet.org/pdfs/PIP_ICT_Typology.pdf

5 Conclusions

The digital literacy study has reviewed the 2006 and the 2007 Eurostat Community Surveys on ICT usage in Households and by Individuals, and has identified a range of factors that influence the use of digital services and development of computer and internet skills. A range of new variables have been analysed in the special digital literacy module aimed at identifying factors and trends relevant to potentially marginalised and disadvantaged communities. The review has also compared the results of Eurostat with those of a selection of recent other monitoring and measurement initiatives in Europe and the USA.

An overview has been provided of the most interesting and relevant monitoring and measurement initiatives identified, also from outside the EU.

This section summarizes the main conclusions from the review and shortly discusses possible policy implications. For a more extensive list of policy recommendations comprising the whole study , please refer to Topic Report 4.

5.1 Past and present data

With a focus on the 2006-2007 Eurostat figures on digital literacy (including new indicators), the study has examined the indicators of potentially marginalised and disadvantaged groups, e.g. gender, age, education, occupation, population density, economic regions, income, age/education and age/employment.

Computer and internet skills levels and developments

In relation to potentially marginalised and disadvantaged communities, the data available from Eurostat do not go much beyond traditional indicators such as age, gender, and geographical location, level of education, employment status, and type of job (e.g. manual vs. non-manual).

Both computer and internet skills levels have improved throughout Europe from 2006 to 2007 after an apparent drop in the level of computer skills from the year before (from 2005 to 2006), presumably due to the substition of an item in the computer skills index[108]. Correspondingly, the numbers of individuals who have never used a computer or the internet have generally fallen (3 and 6 percentage points respectively), with only marginal variations in relation to age and educational attainment levels. In absolute terms, traditional indicators such as age, gender, education, economic resources, geographical location, and type of job thus are still relevant.

That is, the proportion of non-computer and non-internet users is greatest among:

- The elderly (from 55 years of age and older – especially those between 65 and 74 years of age)
- Women compared to men

[108] From 2006 onwards, the simple item related to the ability to use a mouse to open programs has been replaced with the somewhat more demanding item related to the ability to connect and install new devices such as a printer or a modem.

- Persons with lower educational attainment
- Persons with fewer economic ressources
- Persons in low density population areas and objective 1 regions
- Persons in manual jobs, unemployed, and the retired or economically inactive.

Improvements in proportions of non-computer and non-internet users have been greatest in thinly populated areas, while changes in usage levels have been among the least in the economically weaker objective 1 regions. It would therefore be of interest to have data on a regional level (e.g. NUTS 2 level[109]) to see if there are specific factors which may affect digital literacy trends, such as remoteness or the availability of centralised private and public services.

Eurostat data reflect a diminishing 1st digital divide (i.e. in terms of accessibility), as the proportion of non-computer users is falling. The proportion of persons with no computer skills has decreased by 3 percentage points from 43% in 2006 to 40% in 2007.

The evidence of a potential second digital divide – related to level three usage as defined in the European Comission's review from 2008 (i.e. levels of ICT skills, intensity and quality of internet use including using the net for transactions, critical analysis skills, and levels of motivation)[110] – can to some extent be confirmed by the fact that there are only relatively smaller improvements in computer and internet skills for persons with low educational attainment levels (the proportion with no computer skills decreased from 65% to 61%) and for the unemployed or otherwise economically inactive (corresponding figures are from 74% to 72%).

Data indicate that some groupings already have medium to high computer and internet skills levels, e.g. young people (77%), students (84%) and individuals with high levels of education (77%). For the most effective use of resources, policy efforts should therefore focus on disadvantaged groups, with the point of departure in the existing knowledge about which types of measures work best for which groupings. It also should be carefully considered whether digital literacy measures need to be accompanied by complementary policy efforts in related fields of intervention such as return to education or active employment to succeed – as some of the best practice cases from this study would seem to indicate.

In relation to potentially marginalised and disadvantaged individuals the analysis also shows an emerging 2nd digital divide relating to a more advanced use of digital information and trust in online transactions. As there seems to be a correlation between low levels of computer skills and low levels of educational attainment (61%) or employment in manual jobs (50%), European policy measures and programmes should explore initiatives and proposals which aim to strengthen the ICT skills among the blue collar workforce through innovative measures

[109] The NUTS nomenclature is a geographical hierarchical classification created and developed according to the following principles: a) The NUTS favours institutional breakdowns, b) The NUTS favours regional units of a general character, c) the NUTS is a three-level hierarchical classification. NUTS2 defines regions of 0.8-3.0 millions of inhabitants. For more details see: ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html

[110] Digital Literacy Report: a review for the i2010 eInclusion Initiative, European Commission Staff Working Document and Recommendations from Digital Literacy, High-Level Expert Group, European Commission, 2008. ec.europa.eu/information_society/eeurope/i2010/docs/digital_literacy/digital_literacy_review.pdf and ec.europa.eu/information_society/eeurope/i2010/docs/digital_literacy/digital_literacy_hlg_recommendations.pdf

to apply ICT in business products, processes and services. Practical and application-oriented use of ICT in genuine working contexts can not only stimulate the motivation to learn how to use ICT, but can also lead to improved productivity and innovation in services and products. At the same time it would be beneficial to have more solid data on where people access different types of online and off-line digital services, e.g. for people in different employment situations, different types of jobs, at work, in educational institutions or at PIAPs, and data as to what type of support mechanisms different environments offer.

Impact of age, education, employment on computer and internet skills

When comparing variables regarding age, level of education, and employment levels with computer and internet skills levels, a number of correlations relevant to policy-making are revealed.

The lower the age and the higher the level of educational attainment, the better the level of computer and internet skills – a trend strengthened by the combination of the two indicators. Hence, while educational attainment seems to have limited impact on skills levels among the youngest age groups, education becomes an increasingly substantial mediating factor as age increases.

The combination of age and educational attainment in relation to computer and internet skills also highlights the existence of a geographical divide across Europe. Relatively small northern and north-western countries tend to have higher proportions of inhabitants with medium/high computer skills compared to southern, south-eastern nations. It may be of potential interest to examine a further breakdown of geographical parameters to the regional level (e.g. at NUTS 2 level) to look at specific aspects related to "rural conditions" and remoteness, in order to better understand specific trends impacting on digital literacy. Also of interest would be a further specification of educational attainment levels to capture possible specific educational characteristics which may lead to higher computer and internet skills levels than others.

An analysis of age and employment status in relation to computer and internet skills reveals that employment status has a relatively even and moderate impact on skills levels irrespective of age – computer and internet skills being highest among the self-/employed and lowest among the retired and inactive. At the same time, age has a similar impact on skills levels within all employment status groups – computer and internet skills being highest among the younger age groups. Differences in employment status appear to have less impact on the likelihood of possessing medium or high internet skills levels than on the likelihood of possessing at least a low internet skills level, though, while age remains a distinguishing factor at all internet skills levels. The Eurostat data provide no plausible explanation for this, but one reason could be that those with medium to high-level internet skills regardless employment status have taken a personal interest in learning how to use the internet.

A geographical divide can be observed regarding internet skills similar to that regarding computer skills, though internet skills as a whole are at lower levels.

Finally,to improve knowledge relating to potentially marginalised and disadvantaged communities, more detailed data on the duration of active employment or unemployment (i.e. for self-/employed, unemployed, retired/inactive) and type of employment (i.e. more detailed

categories within manual and non-manual employment) and the respective impacts on digital literacy would be relevant.

Barriers to more intensive use

This study examines data from the Eurostat Community Survey of ICT usage in Households and by Individuals with a view to analysing barriers to internet use, choices regarding skills development, reasons for not taking a computer course, perceptions about personal skills, and the ways in which new skills are acquired.

Unfortunately, not much information can be deduced from the survey concerning underlying individual reasons for non-use of computers and the internet. However, arguably, home access is a considerable factor influencing the take-up and continued use of such tools, and, interestingly, by far the single most important reason in the EU27 for households not having internet access would appear to be a perceived lack of need (41%) and not equipment or access costs (26% and 23% respectively).

Yet for some population groups, namely single parent households with children, costs do appear to be the overshadowing barrier (44% indicate equipments costs pose a significant impediment while 32% indicate that access costs are an issue) potentially reproducing digital divides among the new generations[111].

Variations are found in attitudes and rationales concerning participation and non-participation in computer courses according to indicators such as age, gender, educational level, population density, employment status, and job type. The most important reason for not taking a course is the perception "that the skills are sufficient as they are". Thus, 46% of all individuals who have used a computer, but not taken a computer course within the last three years, and as many as 55% of those in non-manual jobs, and 61% of those with higher-level education, provide this reason. These figures, of course, to some extent reflect that significant shares of the population within certain population groups actually do have good computer skills, and not surprisingly, only 39% of the oldest age group of 34% of the retired/inactive group indicate this reason for not taking a course.

Lack of time is not perceived as a major obstacle by either gender (both 13% of men and women indicate this as a barrier) and becomes less of an issue as the economic activity levels decrease (lack of time is a barrier for smaller proportions of unemployed and retired/inactive than self-/employed). Lack of time is however considered more important by people in manual jobs than by those in non-manual employment, thus indicating the potential of integrating ICT training in other forms of job-related training to improve digital literacy levels for persons in manual jobs.

Furthermore, the lower the population density and relative wealth of a given area the more important lack of time as a barrier seems to become suggesting that distances to course suppliers could be a factor. On the other hand, the lack of available computer courses is not deemed a major hindrance by any of the socio-economic segments (there are only marginal variations between the different segments).

[111] Note that data only available for DK, FI, AT, DE, BE, GR, EE, CZ, CY and BG in relation to country breakdowns.

Limited financial resources play a role in taking a computer course or not. Thus, 15% of the unemployed and 10% of people living in objective 1 regions indicate course costs as one of the reasons for not having taken a computer course within the last three years. Moreover, these findings are corroborated by previous experiences from Denmark indicating that free access to basic computer courses can motivate some individuals to enroll.

Most worrysome is that a significant proportion of Europeans (21%) have not taken a course to develop computer skills because they rarely use a computer. This barrier becomes less important as the level of education increases, but more important as age increases (39% of 65-74 year-old indicate this as a reason). This barrier is also slightly less prevalent among men and more prevalent among persons in manual jobs, and as population density and economic activity levels fall, the "rare use of computers" is increasingly emphasised as a reason for not participating in ICT training. It would be relevant in the future to have data available to differentiate the situation in different regions based on proximity to services, remoteness, and economic development for different potentially marginalised groups with multiple social disadvantages such as unemployment, single parents (especially women), individuals with low levels of educational attainment, and the physically disabled.

The Eurostat data show that actual internet use is closely linked to personal preferences and prioritisations in relation to people's use of time independent of connectivity, internet and computer use, and skills levels. More than half (58%) of all regular internet users who would like to use the internet more than they already do state that lack of time presents a barrier. Opportune time accordingly would appear to constitute an important factor in designing effective initiatives that can motivate intended target groups to develop computer and internet skills. In contrast, it is only a small proportion (5%) that sees a lack of private and public online content and services as a barrier to increased internet use despite national variations in relative wealth, competence levels, online service offers, and sophistication[112]. Moreover, in no country does the importance of access or content costs seem to exceed time as a barrier.

National variations show that skills levels as a barrier to more intensive internet use are mainly relevant to people living in areas with generally good internet skills levels and high connectivity. Lack of skills thus is considered more of a barrier in the nordic countries (26-46%) than in many southern and eastern European countries (2-12% not including the three Baltic states, Slovenia, Spain and Portugal).

Given the costs of carrying out households surveys and of expanding their scope, it is a question as to which type of initiatives will yield the best results in getting non-users involved – whether more refined data are needed to better target different groupings, or whether more emphasis should be put on disseminating grood practices such as those identified within this study through a range of channels relevant to the different user segments.

Actual learning processes and online service use

Regarding actual learning processes and use of online services, Eurostat data show some interesting trends in relation to potentially marginalised and disadvantaged groups.

[112] Note, though, that results referred to in this paragraph and the next are based on answers among respondents who are already regular users. Other dynamics might exist among non-users.

Once above the age of 34, formal education at present is a relatively insignificant source of computer and internet skills acquisition quickly surpassed in importance by various training courses either on own initiative or on-demand by employers except for the unemployed. Thus, among those aged 35 to 74 at least one in three has acquired some of their skills through vocational on-the-job training, but it is notable that the lower educated, manual workers, and people living in objective 1 regions participate less frequently than others in such educational modules. This suggests that if digital literacy skills are to be furthered in the EU population as a whole, measures should particularly target persons in manual jobs and persons with low educational attainment levels. Furthermore, policies that target underdeveloped regions should address digital literacy as a central measure in economic development.

At the same time, the importance of learning-by-doing and informal assistance in particular for the lower educated and manual workers, but also for other groups, should not be ignored, underlining the importance of practical exercises and the use of facilitators, mediators, networks, and social clubs in designing effective and efficient measures for spreading ICT skills to lagging population groups.

The analysis of the use of online services highlights that the younger and more educated a person is, the more likely he or she is to use services available online. The type of occupation also plays a role with people in non-manual jobs indicating a larger degree of internet use, for instance, for learning purposes.

As more and more occupations become ICT-intensive it will be valuable to document and disseminate how ICT is integrated in the curriculum of different occupational profiles. Examples of this already exist in work carried out by Cedefop regarding jobs in the banking and automotive sectors[113].

Little can be said in relation to digital literacy levels of marginalised and disadvantaged groups when looking at the relative importance given to the five internet activities examined (using the internet for learning purposes, for seeking health-related information, internet banking, accessing public websites, or seeking jobs) as well as e-Commerce, and making safety copies of files by individuals. It is evident, though, that women and retired or economically inactive are somewhat more likely than average to use the internet for seeking health-related information, while the unemployed not surprisingly are by far the most likely to look for jobs on the internet. On the other hand, manual workers, the lower educated, and people living in economically weak areas (i.e. objective 1) are much less likely than other population groups to use the internet for internet banking or accessing public authorities' websites. Similarly, these three groups together with the unemployed and retired or economically inactive are least likely to use shopping services on the internet, and manual workers, the lower educated, retired or economically inactive, and women make safety copies or back-up files less often than other people (or at least are less frequently aware that they do).

Moreover, the data indicate that countries in the Northern and Western Europe have a higher proportion of online services users than countries in the south and south-east. Nevertheless, concerning learning processes, the Eurostat data show a more mixed picture, though no plausible explanation can be given. Here Austria, the Netherlands, Belgium, the United

[113] Petersen, W. & P. Revill (2005). *ICT and e-Business Skills and Training in Europe – Towards a Comprehensive European e-Skills Reference Framework, Final Synthesis Report.* Cedefop Panorama Series, 19.

Kingdom, and Sweden (14-34%) rank in the lower third in relation to internet use for learning purposes, whereas use of the internet for learning purposes is much more common in countries such as Portugal, Italy, Denmark and Cyprus (54-71%).

Variations in the use of online public services seem to be linked to the volume and sophistication of eGovernment solutions, but also to the complexity of the online solutions and thus to requirements for computer and internet skills. There is a risk that the conversion of public services to digital media without implementation of a multi-channel strategy - that is, a strategy that uses different media platforms - could lead to a worsening of the digital divide. The geographical variations identified for computer and internet skills are also valid in relation to the use of online services.

5.2 Comparing the results from Eurostat with other recent experiences

In the comparison of Eurostat data from the Community Survey on ICT usage in Households and by Individuals with other measuring and monitoring initiatives, a consistent picture of the relationship between ICT skills and various demographic and socio-economic variables emerges. Only very few discrepancies are seen, and none of these differences would appear to indicate flaws in the Community Survey framework, in most cases related rather to divergences in the theoretical definitions (if any) and practical questions used.

That said, in some instances the choice of response categories in the Community Survey are seen to hide internal differences within particular population groups. For instance, grouping full-time housewives and assisting spouses together with the self-employed and employed may cause policy-makers to overlook very low digital literacy levels among full-time housewives and assisting spouses.

In addition, since studies such as ALL and by the OECD indicate that income is perhaps the single most important factor in determining digital literacy levels (or at the very least access levels), it would seem beneficial to advance efforts underway to include more comprehensive information on income levels in the Community Survey framework.

Based on the review of studies in relation to digital literacy levels among ethnic and cultural minorities, moreover, it also would seem pertinent to consider obtaining information about one or more of the following demographic variables: ethnic background, mother tongue, and/or migratory status – not least in view of the risk that ethnic and cultural minorities are becoming the new underclass in their new home countries.

At the same time, however, it should be noted that the same studies show that ethnic and cultural minorities are not always lagging in skills. For instance, in the use of mobile phones and digital television, ethnic and cultural minorities actually tend to be more proficient than the indigenous populations. These findings could suggest that the current focus mainly on computers when measuring ICT skills may be somewhat biased.

Finally, there are some indications that in order to really understand individual ICT use and avoid generalisations, it is necessary to enquire more about the roots of personal motivation and the different life spheres where people use ICT in practice. It is, however, not without issues to significantly extend the length of surveys such as the Eurostat community survey to

cover new ground and much information is also gained by securing the continuity of questions over time.

6 References

Atomic Learning. Syllabus and self-assessment test available online at movies.atomiclearning.com/k12/assessyourself

Australian Bureau of Statistics (2007). *Household Use of Information Technology*. Available online at www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8146.02006-07?OpenDocument

Aviram, A. & Y. Eshet-Alkalai (2006). *Towards a Theory of Digital Literacy: Three Scenarios for the Next Steps*. European Journal of Open, Distance and E-Learning 2006 Issue 1. Available online at www.eurodl.org/materials/contrib/2006/Aharon_Aviram.htm

Cambridge International. Syllabus available online at www.cie.org.uk/qualifications/academic/primary/ictstarters/overview (ICT Starters) and www.cie.org.uk/qualifications/vocational/dipict/index_html (Diploma in ICT, now withdrawn)

Certiport Internet and Computing Core Certification (IC^3). Syllabus available online at info.certiport.com/yourpersonalpath/ic3Certification/

Community Survey on ICT usage in Households and by Individuals questionnaires since 2002 available online at europa.eu.int/estatref/info/sdds/en/isoc/isoc_hh_model_questionnaire_xxxx.pdf inserting year (e.g., 2007 instead of "xxxx")

Danish Technological Institute (2007). *Borgernes IKT-Færdigheder i Danmark* ("*Citizens' ICT Skills in Denmark"*). Available online at www.itst.dk/e-laering-og-it-faerdigheder/publikationer/borgernes-ikt-ferdigheder-i-danmark/Borgernes%20IKT-ferdigheder%20i%20Danmark.pdf (Danish only)

Dolton, P. (2004). *What Do Policy Makers Need to Know about the Skills of Young People and the School to Work Transition?*. Available online at www.oecd.org/dataoecd/48/50/34474626.pdf

Dutton, W. H. & E. J. Helsper (2007). *The Internet in Britain 2007*. Available online at http://www.oii.ox.ac.uk/microsites/oxis/publications.cfm

Educational Testing Service *iSkills*. Syllabus available online at www.ets.org/iskills/

European Commission (2001). *Digital Literacy Workshop*. A discussion paper form the e-Learning summit on digital literacy, Brussels 10-11 May 2001

European Computer Driving License Foundation. Syllabus available online at www.ecdl.org/products/index.jsp (choose either EqualSkills or ECDL)

Fairlie et al. (2006). *Crossing the Divide – Immigrant Youth and Digital Disparity in California*. Center for Justice, Tolerance & Community, University of California, Santa Cruz. Available online at cjtc.ucsc.edu/docs/digital.pdf

Federal Ministry of Economics and Technology, Germany (2006). *iD2010 – Information Society Germany 2010*. Available online at www.bmwi.de/English/Redaktion/Pdf/id2010,property=pdf,bereich=bmwi,sprache=en,rwb=true.pdf

Hargittai, E. (2007). *A Framework for Studying Differences in People's Digital Media Uses*. In "Cyberworld Unlimited" pp.121-137.

IECRC and Citizens Online for IDeA (2005). *E-government: Reaching Socially Excluded Groups?*. Available online at http://www.idea.gov.uk/idk/core/page.do?pageId=1074872

Institute for Public Affairs, Slovakia (IVO) (2005). *Digital Literacy in Slovakia*. Available online at http://www.ivo.sk/3798/en/projects/digital-literacy-in-slovakia?lang=EN (report in Slovak only)

Kutscher, N. & H.-U. Otto (eds.) (2007). *Cyberworld Unlimited*. VS Verlag für Sozialwissenschaften/GWV Fachverlage GmbH.

Mardis, M. A.; E. S. Hoffman & T. E. Marshall (2008). *A New Framework for Understanding Educational Digital Library Use: Re-Examining Digital Divides in U.S. Schools*. International Journal on Digital Libraries, Vol.9, pp.19-27.

Marshall, T. (2007). *A New Model for Explaining Technology Usage: The Quadratic Usage Model*. Center for Digital Literacy, Syracuse University, Unpublished.

Merle, V. (2004). *Developing an International Survey on Adult Skills and Competencies – Aims and Methodological Issues*. Available online at http://www.oecd.org/dataoecd/49/26/34474635.pdf

Mominó, J. M. & J. Meneses (2007). *Digital Inequalities in Children and Young People: A Technological Matter?*. Presentation at INDIRE – OECD, Florence, March 2007, available online at www.oecd.org/dataoecd/15/6/38337741.pps

Murray, T. S.; Y. Clermont & M. Binkley (editors) (2005). *Measuring Adult Literacy and Life Skills: New Frameworks for Assessment*. Available online at http://www.statcan.gc.ca/pub/89-552-m/89-552-m2005013-eng.pdf

OCR CLAiT. Syllabus available online at www.clait2006.co.uk/

Office of Communication (Ofcom) (2007). *Communications Market Special Report – Ethnic Minority Groups and Communications Services*. Available online at www.ofcom.org.uk/research/cm/ethnic_minority/

Office of Communication (Ofcom) (2006-2008). *Media Literacy Audits*. Available online at www.ofcom.org.uk/advice/media_literacy/ml_audit/

Office of Communication (Ofcom) (2006-2008). *Media Literacy Audits Questionnaire*. Available online at www.ofcom.org.uk/advice/media_literacy/medlitpub/medlitpubrss/medialit_audit/adult_questionnaire.pdf

Organisation for Economic Cooperation and Development (OECD) (2005). *Are Students Ready for a Technology-Rich World? What PISA Studies Tell Us* (Programme for International Student Assessment). Available online at www.oecd.org/dataoecd/28/4/35995145.pdf

Organisation for Economic Cooperation and Development (OECD) (2004). *PIAAC Draft Strategy Paper – Policy Objectives, Strategic Options, and Cost Implications*. Available online at http://www.oecd.org/dataoecd/3/3/34463133.pdf

Organisation for Economic Cooperation and Development (OECD) and Statistics Canada (2000). *Literacy in the Information Age – Final Report of the International Adult Literacy Survey*. Available online at www.oecd.org/dataoecd/24/21/39437980.pdf

Oxford Internet Institute (2008). *Digital Inclusion: An Analysis of Social Disadvantage and the Information Society*. Available online at www.communities.gov.uk/documents/communities/pdf/digitalinclusionanalysis

Petersen, W. & P. Revill (2005). *ICT and e-Business Skills and Training in Europe – Towards a Comprehensive European e-Skills Framework, Final Synthesis Report*. Cedefop Panaroma Series No.19, EUR-OP, Luxembourg.

PEW Internet & American Life Project (2007). *A Typology of Information and Communication Technology Users*. Available online at www.pewinternet.org/pdfs/PIP_ICT_Typology.pdf

PEW Interne & American Life Project (2007). *February-March 2007 Tracking Dataset*. Available online at www.pewinternet.org/PPF/r/64/dataset_display.asp

PEW Internet & American Life Project (2007). *Latinos Online*. Available online at www.pewinternet.org/pdfs/Latinos_Online_March_14_2007.pdf

PEW Internet & American Life Project (2008). *Mobile Access to Data and Information*. Available online at www.pewinternet.org/pdfs/PIP_Mobile.Data.Access.pdf

The SIBIS project (Statistical Indicators Benchmarking the Information Society) homepage: www.sibis-eu.org

SINTEF (2007). *Patterns of Media Use among Citizens in Europe*. Deliverable to the Citizens' Media Project, available online at www.ist-

citizenmedia.org:8080/download/attachments/270/D1.1.1_PatternsOfMediaUseAmongCitizensInEurope_V1.0.pdf

Statistics Canada and Organisation for Economic Cooperation and Development (OECD) (2005). *Learning a Living – First Results of the Adult Literacy and Life Skills Survey*. Available online at www.statcan.gc.ca/pub/89-603-x/2005001/pdf/4200878-eng.pdf

Statistics Denmark for the weekly newsletter A4 (2007). *Har Du Ikke Internet? ("Don't You Have Internet?")*. Available online at www.ugebreveta4.dk/2008/200813/Baggrundoganalyse/HarDuIkkeInternet.aspx (Danish only)

The Sourir network (Synergie des Observatoires des Usages Régionaux de l'Internet et des Réseaux) homepage: www.sourir.org

The Understand project (European Regions UNDER way towards STANDard indicators for benchmarking information society) homepage: www.understand-eu.net/

van Ingen, E.; J. de Haan & M. Duimel (2007). *Achterstand en Afstand – Digitale Vaardigheden van Lager Opgeleiden, Ouderen, Allochtonen en Inactieven ("Disadvantage and Distance – The Digital Skills of the Lower Educated, the Elderly, Immigrants, and the Economically Inactive")*. Available online at www.scp.nl/publicaties/boeken/9789037703160/Achterstand%20en%20afstand.pdf

Vox (2008). *The Digital Citizen – An Analysis of Digital Competence in the Norwegian Population*. Available online at http://www.vox.no/upload/7903/The_Digital_Citizen_SEC.pdf

Working Party on the Information Economy, Organisation for Economic Cooperation and Development (OECD) (2007). *Broadband and ICT Access and Use by Households and Individuals*. Available online at www.oecd.org/dataoecd/44/11/39869349.pdf

Annex 1: Computer skills index, 2007 (E3)

The following computer skills index is based on replies given for the following computer related activities carried out by respondents to the Eurostat Community Survey on ICT usage in Households and by Individuals question E3 (Which of the following computer related activities have you already carried out?):

a) Copying or moving a file or folder
b) Using copy and paste tools to duplicate or move information within a document
c) Using basic arithmetic formulas in a spreadsheet
d) Compressing (or zipping) files
e) Connecting and installing new devices, e.g. a printer or a modem
f) Writing a computer program using a specialised programming language
g) None of the above

Aggregated scores based on percentage share of individuals with each skill level defined in Eurostat, ranges from a low 0 to a high 1 (aggregated score = 0 x share with no skills + 1/3 x share with low skills + 2/3 x share with medium skills + 1 x share with high skills)

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Computer skills level	0.44	0.64	0.59	0.62	0.64	0.54	0.55	0.62	0.50	0.49	0.55	0.54	0.44	0.36	0.44	0.36	0.33	0.30	0.44	0.46	0.45	0.36	0.37	0.44	0.35	0.34	0.31	0.20	0.17
Change from 2006 to 2007	0.03	0.00	0.02	0.01	0.00	0.01	-0.03	0.05	0.02	0.09	0.04	0.01	0.02	0.04	0.04	0.07	0.02	0.00	0.04	0.02	0.02	0.03	0.03	0.02	0.04	0.00	0.02	0.02	0.01
Aged 16-24																													
Computer skills level	0.69	0.79	0.75	0.80	0.84	0.79	0.72	0.84	0.71	0.78	0.79	0.76	0.65	0.76	0.75	0.47	0.60	0.61	0.77	0.84	0.74	0.74	0.66	0.70	0.68	0.61	0.65	0.42	0.36
Change from 2006 to 2007	0.03	0.03	-0.03	-0.02	0.01	0.05	-0.02	0.00	0.02	0.09	0.01	0.00	0.01	0.06	0.06	0.08	0.04	0.00	0.05	0.00	-0.01	0.04	0.03	0.03	0.05	-0.02	0.05	0.04	0.02
Aged 25-54																													
Computer skills level	0.49	0.69	0.67	0.68	0.73	0.64	0.60	0.66	0.55	0.54	0.62	0.62	0.49	0.39	0.50	0.42	0.39	0.35	0.48	0.52	0.51	0.36	0.40	0.48	0.37	0.38	0.31	0.23	0.17
Change from 2006 to 2007	0.02	-0.01	0.02	0.02	0.03	0.02	-0.04	0.05	0.00	0.05	0.04	0.01	0.01	0.04	0.04	0.08	0.03	0.01	0.05	0.02	0.03	0.04	0.03	0.02	0.05	0.02	0.02	0.02	0.01
Aged 55-64																													
Computer skills level	0.26	0.47	0.42	0.41	0.49	0.34	0.43	0.48	0.37	0.36	0.30	0.40	0.27	0.16	0.17	0.15	0.16	0.08	0.19	0.19	0.25	0.11	0.19	0.18	0.14	0.10	0.10	0.07	0.04
Change from 2006 to 2007	0.02	-0.03	0.05	-0.04	-0.04	0.00	0.00	0.08	0.02	0.05	0.05	0.01	0.02	0.04	0.01	0.01	0.02	-0.01	0.03	0.00	0.03	0.02	0.02	0.00	0.02	-0.01	0.00	0.01	0.00
Aged 65-74																													
Computer skills level	0.11	0.26	0.21	0.28	0.26	0.12	0.25	0.25	:	0.17	:	0.21	0.11	:	0.06	0.07	0.04	0.02	:	0.06	0.08	0.02	0.07	0.05	0.03	0.03	:	:	:
Change from 2006 to 2007	0.02	0.05	0.00	0.09	-0.05	0.01	-0.06	0.06	:	0.04	:	0.01	0.02	:	0.01	0.02	0.01	0.01	:	0.01	0.01	0.00	0.01	0.02	0.01	0.00	:	:	:
Women																													
Computer skills level	0.38	0.58	0.49	0.54	0.57	0.48	0.47	0.51	0.45	0.43	0.47	0.47	0.38	0.32	0.40	0.36	0.27	0.27	0.41	0.44	0.43	0.34	0.33	0.42	0.33	0.33	0.28	0.20	0.15
Change from 2006 to 2007	0.02	-0.01	0.03	0.00	0.00	0.00	-0.04	0.06	0.02	0.08	0.04	0.00	0.02	0.03	0.04	0.07	0.02	0.00	0.03	0.05	0.02	0.03	0.02	0.03	0.04	0.01	0.02	0.02	0.01
Men																													
Computer skills level	0.49	0.69	0.69	0.69	0.70	0.60	0.62	0.73	0.56	0.55	0.63	0.62	0.49	0.40	0.49	0.37	0.39	0.33	0.47	0.49	0.46	0.38	0.40	0.47	0.38	0.36	0.34	0.20	0.18
Change from 2006 to 2007	0.03	0.01	0.01	0.03	-0.01	0.02	-0.03	0.03	0.01	0.09	0.04	0.02	0.01	0.04	0.04	0.06	0.03	0.01	0.05	-0.01	0.02	0.04	0.04	0.00	0.05	0.00	0.02	0.01	0.01
Lower educational level																													
Computer skills level	0.26	0.51	0.40	0.50	0.51	0.40	0.43	0.47	0.16	0.34	0.35	0.44	0.25	0.21	0.21	0.15	0.15	0.08	0.39	0.24	0.23	0.28	0.31	0.28	0.26	0.12	0.25	0.08	0.08
Change from 2006 to 2007	0.02	-0.01	0.02	0.15	-0.04	0.00	-0.06	0.07	0.01	0.08	0.03	0.00	0.00	0.04	0.03	0.03	0.01	0.00	0.07	0.04	0.00	0.03	0.04	-0.06	0.06	0.00	0.02	0.00	0.07

Middle educational level																											
Computer skills level	0.47	0.66	0.64	0.59	0.66	0.53	0.52	0.74	0.54	0.66	0.57	0.54	0.47	0.77	0.60	0.38	0.50	0.38	0.37	0.47	0.57	0.27	0.34	0.46	0.29	0.34	0.26	0.18	0.16
Change from 2006 to 2007	0.02	0.00	0.02	0.00	0.03	0.01	-0.02	0.10	0.00	0.04	0.04	0.01	0.02	0.04	0.03	0.06	0.03	-0.02	0.04	0.01	0.01	0.02	0.03	0.05	0.04	-0.01	0.01	0.03	0.02
Higher educational level																											
Computer skills level	0.70	0.82	0.76	0.75	0.79	0.70	0.67	0.79	0.70	0.75	0.73	0.70	0.66	0.79	0.75	0.62	0.64	0.59	0.59	0.78	0.75	0.64	0.68	0.70	0.62	0.62	0.60	0.50	0.52
Change from 2006 to 2007	0.02	0.00	0.01	0.02	0.04	0.00	-0.03	0.04	-0.01	0.06	0.02	0.03	0.01	0.01	0.03	0.10	0.04	-0.01	0.00	0.01	0.03	0.04	-0.01	-0.01	0.07	0.00	0.02	0.04	0.01
Densely populated areas																											
Computer skills level	0.47	:	0.62	0.66	0.70	0.63	0.63	0.61	0.50	0.51	0.61	0.57	0.45	0.43	0.50	0.43	0.36	0.38	0.47	0.55	0.55	0.48	0.45	0.47	0.39	0.40	0.37	0.31	0.24
Change from 2006 to 2007	0.02	:	0.01	0.02	-0.01	0.02	-0.03	0.07	0.03	0.07	0.05	0.01	0.02	0.04	0.05	0.07	0.02	-0.01	0.04	-0.01	0.02	0.04	0.04	-0.02	0.03	0.01	-0.01	0.02	0.02
Intermediate density																											
Computer skills level	0.44	0.67	0.60	0.63	0.63	0.60	0.57	0.62	0.51	0.49	0.56	0.54	0.42	0.33	0.42	0.36	0.32	0.26	:	0.48	0.44	:	0.34	:	:	0.30	0.26	0.17	:
Change from 2006 to 2007	0.03	-0.01	0.05	-0.04	-0.01	0.01	-0.05	0.03	-0.02	0.06	0.05	0.01	0.01	0.05	0.02	0.05	0.02	-0.04	:	0.04	0.01	:	0.02	:	:	-0.03	-0.03	0.03	:
Thinly populated areas																											
Computer skills level	0.37	0.58	0.54	0.59	0.60	0.48	0.51	0.63	0.52	0.46	0.50	0.49	0.39	0.28	0.36	0.31	0.29	0.24	0.40	0.41	0.37	0.27	0.32	0.43	0.31	0.24	0.26	0.11	0.07
Change from 2006 to 2007	0.03	0.02	0.00	0.03	0.03	0.00	-0.03	0.06	0.02	0.12	0.03	0.00	0.06	0.01	0.04	0.08	0.02	0.01	0.03	0.01	0.03	0.03	0.02	0.03	0.05	0.00	0.05	0.01	0.01
Objective 1 regions																											
Computer skills level	0.32	0.64	0.58	:	:	:	:	:	:	:	:	0.51	0.38	0.33	0.39	:	0.27	0.30	0.44	0.46	0.42	0.36	0.35	0.44	0.35	:	0.31	0.20	0.17
Change from 2006 to 2007	0.00	:	-0.05	:	:	:	:	:	:	:	:	0.00	0.03	0.04	0.02	:	0.02	0.00	0.04	0.02	-0.01	0.03	0.02	0.02	0.04	:	0.02	:	0.01
Other regions																											
Computer skills level	0.50	:	0.59	:	0.64	0.54	0.55	0.62	0.51	:	:	0.55	0.44	:	0.47	0.36	0.36	:	:	:	0.52	:	0.52	0.44	:	0.34	0.44	:	:
Change from 2006 to 2007	0.01	:	0.02	:	0.00	-0.01	-0.04	0.05	0.02	:	:	0.01	0.01	0.03	0.02	0.05	0.02	:	:	:	:	:	0.04	0.02	:	0.00	:	:	:
Students																											
Computer skills level	0.75	0.82	0.77	0.81	0.85	0.80	0.72	0.86	:	0.82	0.90	0.80	0.70	0.86	0.84	0.61	0.70	0.72	0.82	0.91	0.82	0.81	0.75	0.74	0.75	0.72	0.71	0.58	0.52
Change from 2006 to 2007	0.02	0.02	-0.04	-0.04	0.03	0.04	-0.04	0.02	:	0.08	0.00	0.00	-0.01	0.02	0.05	0.14	0.03	0.04	0.05	0.02	0.00	0.02	0.03	0.01	0.06	-0.01	0.04	0.06	-0.08
(Self-)Employed																											
Computer skills level	0.52	0.66	0.70	0.68	:	0.62	0.59	0.70	0.59	0.56	0.65	0.64	0.53	0.42	0.54	0.42	0.44	0.38	0.49	0.56	0.57	0.41	0.41	0.50	0.40	0.39	0.36	0.26	0.19
Change from 2006 to 2007	0.02	0.00	0.02	0.02	:	0.01	-0.03	0.05	0.01	0.04	0.03	0.02	0.02	0.05	0.04	0.07	0.02	0.01	0.04	0.01	0.03	0.04	0.02	0.01	0.04	0.01	0.01	0.02	0.01
Unemployed																											
Computer skills level	0.40	0.56	0.66	0.69	0.57	0.46	0.59	0.38	:	0.54	:	0.52	0.35	0.33	0.42	0.27	0.36	0.38	0.40	0.36	0.27	0.18	0.21	0.30	0.18	0.42	0.22	0.08	0.10
Change from 2006 to 2007	0.02	0.10	-0.02	0.18	-0.02	0.01	-0.01	0.08	:	0.07	:	-0.03	0.01	0.07	0.06	0.00	0.06	0.03	:	0.05	0.00	0.03	-0.03	0.03	0.01	0.11	0.02	0.02	-0.01
Retired or inactive																											
Computer skills level	0.17	0.29	0.31	0.35	0.31	0.22	0.32	0.36	0.25	0.22	0.27	0.29	0.18	0.08	0.14	0.16	0.08	0.07	0.12	0.10	0.17	0.06	0.13	0.14	0.10	0.11	0.07	0.02	0.02
Change from 2006 to 2007	0.02	-0.01	0.03	0.10	-0.05	0.00	-0.02	0.10	0.01	0.10	0.04	0.00	0.00	0.01	0.03	0.06	0.01	-0.01	0.02	0.00	0.02	0.01	0.02	0.03	0.00	-0.01	0.00	-0.01	-0.06
Manual workers																											
Computer skills level	0.33	0.52	0.57	0.58	0.59	0.52	0.47	0.42	0.43	0.41	:	0.51	0.33	0.22	0.35	0.25	:	0.15	0.28	0.30	0.34	0.61	0.21	0.30	0.22	0.10	0.18	0.08	0.05
Change from 2006 to 2007	0.03	-0.03	0.06	0.07	0.02	0.03	-0.05	0.02	0.05	0.08	:	0.01	0.01	0.06	:	0.06	:	0.01	0.04	0.04	0.03	0.04	0.03	-0.01	0.06	0.01	0.02	:	0.01
Non-manual workers																											
Computer skills level	0.63	0.71	0.72	0.71	0.79	0.68	0.63	0.79	0.65	0.64	:	0.69	0.61	0.61	0.69	0.50	:	0.51	0.65	0.68	0.70	0.19	0.56	0.62	0.52	0.56	0.52	0.42	0.37
Change from 2006 to 2007	0.00	0.00	0.02	0.01	0.05	0.00	-0.02	0.05	-0.01	0.03	:	0.01	0.03	0.04	:	0.09	:	-0.02	0.04	0.00	0.03	0.04	0.01	0.01	0.04	0.03	0.01	:	0.01

Annex 2: Internet skills index, 2007 (E4)

The following computer skills index is based on replies given for the following computer related activities carried out by respondents to the Eurostat Community Survey of ICT usage in Households and by Individuals question E4 (Which of the following internet related activities have you already carried out?):

a) Using a search engine to find information
b) Sending e-mails with attached files (documents, pictures, etc.)
c) Posting messages to chat rooms, newsgroups or an online discussion forum
d) Using the Internet to make telephone calls
e) Using peer-to-peer file sharing for exchanging movies, music, etc.
f) Creating a web page
g) None of the above

Aggregated scores based on percentage share of individuals with each skill level defined in Eurostat, ranges from a low 0 to a high 1 (aggregated score = 0 x share with no skills + 1/3 x share with low skills + 2/3 x share with medium skills + 1 x share with high skills)

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Internet skills level	0.33	0.55	0.47	0.48	0.62	0.54	0.39	0.48	0.36	0.38	0.36	0.38	0.34	0.26	0.33	0.26	0.26	0.19	0.47	0.34	0.31	0.32	0.31	0.33	0.35	0.19	0.28	0.21	0.14
Change from 2006 to 2007	0.05	0.03	0.05	0.02	0.14	0.12	-0.02	0.07	0.06	:	0.04	0.03	0.03	0.06	0.06	0.04	0.04	0.02	0.04	0.04	0.04	0.05	0.07	0.04	0.08	0.02	0.02	0.04	0.03
Aged 16-24																													
Internet skills level	0.59	0.78	0.74	0.70	0.86	0.84	0.56	0.73	0.57	0.70	0.57	0.63	0.54	0.62	0.62	0.38	0.52	0.44	0.81	0.65	0.58	0.69	0.59	0.59	0.68	0.38	0.61	0.45	0.33
Change from 2006 to 2007	0.08	0.04	0.07	-0.03	0.15	0.18	-0.04	0.05	0.11	:	0.01	0.03	0.04	0.12	0.10	0.08	0.07	0.05	0.04	0.02	0.06	0.09	0.13	0.05	0.11	0.04	0.03	0.07	0.05
Aged 25-54																													
Internet skills level	0.36	0.57	0.51	0.52	0.70	0.62	0.43	0.51	:	0.41	0.39	:	0.37	0.27	0.36	0.28	0.31	0.21	0.52	0.38	0.35	0.32	0.33	0.36	0.37	0.20	0.27	0.23	0.14
Change from 2006 to 2007	0.05	0.03	0.05	0.02	0.18	0.15	-0.02	0.07	:	:	0.05	:	0.03	:	0.07	0.04	0.04	0.02	0.05	0.06	0.05	0.06	0.08	0.05	0.09	0.02	0.03	0.05	0.03
Aged 55-64																													
Internet skills level	0.18	0.37	0.31	0.31	0.47	0.32	0.28	0.33	:	0.22	:	:	0.21	:	0.11	0.11	0.11	0.04	0.20	0.11	0.16	0.09	0.14	0.11	0.13	0.06	0.09	0.07	0.03
Change from 2006 to 2007	0.03	0.00	0.05	0.04	0.12	0.09	0.00	0.06	:	0.05	:	:	0.04	:	0.02	0.00	0.03	0.00	0.04	0.01	0.04	0.03	:	0.01	0.04	0.02	:	0.02	0.01
Aged 65-74																													
Internet skills level	0.07	0.20	0.16	0.20	0.24	0.15	0.17	0.13	:	:	:	:	0.08	:	0.04	0.06	0.03	0.01	:	0.04	0.04	0.02	:	0.02	0.03	0.02	:	:	:
Change from 2006 to 2007	0.02	0.04	0.00	0.08	0.02	0.06	-0.01	0.02	:	:	:	:	0.03	:	0.01	0.01	0.00	0.00	:	0.02	0.01	0.01	:	0.01	0.01	0.01	:	:	:
Women																													
Internet skills level	0.29	0.52	0.43	0.43	0.56	0.48	0.35	0.41	0.32	0.33	0.31	0.34	0.31	0.23	0.30	0.24	0.21	0.16	0.45	0.32	0.30	0.30	0.27	0.31	0.33	0.17	0.26	0.20	0.13
Change from 2006 to 2007	0.05	0.02	0.05	0.02	0.13	0.10	-0.02	0.08	0.06	:	0.04	0.02	0.04	0.05	0.06	0.04	0.04	0.01	0.04	0.05	0.04	0.06	0.06	0.05	0.08	0.02	0.02	0.04	0.02
Men																													
Internet skills level	0.37	0.58	0.52	0.53	0.67	0.59	0.44	0.54	0.40	0.43	0.41	0.42	0.37	0.29	0.36	0.27	0.31	0.22	0.50	0.36	0.33	0.34	0.35	0.36	0.38	0.21	0.30	0.22	0.16
Change from 2006 to 2007	0.05	0.04	0.04	0.02	0.15	0.15	-0.02	0.05	0.06	:	0.04	0.03	0.03	0.06	0.06	0.05	0.04	0.03	0.04	0.03	0.04	0.05	0.09	0.03	0.08	0.02	0.01	0.04	0.03
Lower educational level																													
Internet skills level	0.21	0.47	0.37	0.45	0.51	0.44	0.32	0.38	:	0.26	0.25	0.35	0.22	0.15	0.16	0.12	0.11	0.05	0.42	0.18	0.16	0.27	0.27	0.23	0.27	0.07	0.23	0.09	0.08
Change from 2006 to 2007	0.04	0.01	0.06	0.16	0.07	0.08	-0.05	0.08	:	:	0.03	0.02	0.03	0.04	0.03	0.03	0.02	0.01	0.04	0.03	0.03	0.05	0.07	-0.01	0.07	0.01	0.02	0.01	0.07

Middle educational level																													
Internet skills level	0.36	0.56	0.51	0.45	0.64	0.55	0.38	0.53	0.38	0.52	0.36	0.37	0.37	0.56	0.45	0.28	0.40	0.24	0.43	0.34	0.40	0.24	0.28	0.34	0.32	0.17	0.25	0.20	0.14
Change from 2006 to 2007	0.06	0.06	0.06	0.01	0.17	0.14	-0.01	0.08	0.06	:	0.04	0.03	0.04	0.09	0.07	0.04	0.05	0.01	0.05	0.05	0.04	0.05	0.07	0.07	0.07	0.01	0.02	0.05	0.04
Higher educational level																													
Internet skills level	0.51	0.66	0.55	0.55	0.77	0.63	0.47	0.61	0.49	0.58	0.49	0.44	0.46	0.59	0.53	0.40	0.52	0.36	0.60	0.57	0.52	0.54	0.57	0.49	0.56	0.37	0.49	0.47	0.42
Change from 2006 to 2007	0.06	0.02	0.02	-0.01	0.22	0.13	-0.01	0.07	0.04	:	0.04	0.03	0.03	0.12	0.09	0.06	0.05	0.01	0.02	0.02	0.05	0.06	0.12	0.03	0.11	0.03	0.00	0.07	0.04
Densely populated areas																													
Internet skills level	0.36	:	0.50	0.51	0.68	0.63	0.44	0.47	0.36	0.40	0.42	0.40	0.35	0.31	0.37	0.32	0.29	0.24	0.51	0.42	0.40	0.44	0.38	0.39	0.40	0.23	0.35	0.32	0.21
Change from 2006 to 2007	0.05	:	0.05	0.01	0.14	0.14	-0.04	0.08	0.07	:	0.05	0.03	0.04	0.06	0.07	0.07	0.04	0.03	0.04	0.02	0.05	0.06	0.09	0.01	0.09	0.02	0.00	0.05	0.04
Intermediate density																													
Internet skills level	0.33	0.57	0.47	0.52	0.62	0.57	0.40	0.47	0.35	0.37	0.36	0.38	0.32	0.23	0.31	0.25	0.25	0.14	:	0.37	0.31	:	0.29	:	:	0.16	0.24	0.20	:
Change from 2006 to 2007	0.04	0.03	0.05	0.01	0.14	0.12	-0.04	0.05	0.04	:	0.05	0.03	0.03	0.06	0.06	0.03	0.04	0.00	:	0.07	0.04	:	0.07	:	:	0.00	-0.03	0.05	:
Thinly populated areas																													
Internet skills level	0.28	0.50	0.44	0.45	0.57	0.48	0.37	0.49	0.37	0.34	0.30	0.33	0.28	0.21	0.25	0.20	0.22	0.15	0.43	0.29	0.25	0.23	0.26	0.31	0.31	0.12	0.23	0.11	0.05
Change from 2006 to 2007	0.05	0.03	0.04	0.03	0.16	0.11	-0.01	0.07	:	:	0.03	0.02	0.04	0.05	0.06	0.03	0.03	0.02	0.04	0.03	0.05	0.05	0.06	0.05	0.07	0.03	0.05	0.03	0.01
Objective 1 regions																													
Internet skills level	0.25	0.55	0.52	:	:	:	:	:	:	:	:	0.33	0.31	0.23	0.29	:	0.21	0.19	0.47	0.34	0.28	0.32	0.29	0.33	0.35	:	0.28	0.21	0.14
Change from 2006 to 2007	0.02	:	0.06	:	:	:	:	:	:	:	:	0.02	0.04	0.05	0.05	:	0.04	0.02	0.04	0.04	0.02	0.05	0.07	0.05	0.08	:	0.02	:	0.03
Other regions																													
Internet skills level	0.37	:	0.47	:	0.62	0.54	0.39	0.48	0.36	:	:	0.39	0.34	0.33	0.35	0.26	0.29	:	:	:	0.38	:	0.45	0.37	:	0.19	:	:	:
Change from 2006 to 2007	0.04	:	0.05	:	0.14	0.11	-0.02	0.07	0.06	:	:	0.02	0.03	0.06	0.05	0.04	0.04	:	:	:	:	:	0.12	0.02	:	0.02	:	:	:
Students																													
Internet skills level	0.66	0.80	0.78	0.68	0.86	0.83	0.56	0.76	0.64	0.75	0.69	0.69	0.57	0.72	0.69	0.46	0.62	0.52	0.86	0.74	0.66	0.77	0.68	0.62	0.73	0.46	0.66	0.61	0.47
Change from 2006 to 2007	0.06	0.05	0.08	-0.07	0.15	0.16	-0.05	0.03	:	:	-0.02	0.04	0.02	0.11	0.09	0.10	0.06	0.07	0.03	0.05	0.07	0.08	0.13	0.04	0.11	0.03	0.02	0.08	-0.05
(Self-)Employed																													
Internet skills level	0.38	0.54	0.54	0.53	:	0.60	0.42	0.53	0.41	0.42	0.41	0.44	0.40	0.29	0.40	0.29	0.34	0.23	0.52	0.41	0.39	0.36	0.34	0.37	0.40	0.21	0.31	0.27	0.16
Change from 2006 to 2007	0.05	0.03	0.06	0.03	:	0.15	-0.02	0.09	:	:	0.04	0.03	0.04	:	0.08	0.04	0.04	0.02	0.04	0.05	0.05	0.06	0.08	0.04	0.09	0.02	0.02	0.05	0.03
Unemployed																													
Internet skills level	0.31	0.50	0.58	0.45	0.61	0.47	0.42	0.32	:	0.43	:	:	0.31	0.26	0.31	0.23	0.30	0.23	0.49	0.23	0.18	0.16	0.19	0.24	0.19	0.26	0.21	0.08	0.12
Change from 2006 to 2007	0.05	0.09	0.04	0.06	0.12	0.08	-0.03	0.07	:	:	:	:	0.04	:	0.06	0.03	0.08	0.05	0.15	0.01	0.02	0.04	0.02	0.07	0.03	0.10	0.03	0.03	0.03
Retired or inactive																													
Internet skills level	0.13	0.27	0.27	0.28	0.30	0.25	0.23	0.20	:	0.16	0.17	:	0.15	:	0.10	0.12	0.06	0.04	0.16	0.05	0.10	0.06	0.10	0.09	0.11	0.06	0.07	0.02	0.02
Change from 2006 to 2007	0.02	0.02	0.03	0.14	0.05	0.07	0.01	0.03	:	:	0.04	:	0.02	:	0.02	0.04	0.01	0.00	0.04	0.00	0.03	0.02	:	0.03	0.02	0.01	0.01	-0.01	-0.05
Manual workers																													
Internet skills level	0.26	0.45	0.48	0.48	0.58	0.54	0.34	0.35	0.31	0.31	:	:	0.30	0.14	0.27	0.20	:	0.09	0.34	0.22	0.23	0.52	0.19	0.23	0.25	0.06	0.17	0.10	0.06
Change from 2006 to 2007	0.05	0.00	0.09	0.05	0.19	0.16	-0.02	0.07	:	:	:	:	0.04	:	:	0.04	:	0.03	0.04	0.06	0.05	0.07	0.06	0.01	0.08	0.02	0.03	:	0.02
Non-manual workers																													
Internet skills level	0.46	0.58	0.55	0.54	0.75	0.63	0.44	0.59	0.45	0.48	:	0.47	0.44	0.43	0.49	0.33	:	0.31	0.66	0.50	0.48	0.18	0.45	0.45	0.51	0.30	0.44	0.40	0.30
Change from 2006 to 2007	0.04	0.13	0.05	0.03	0.22	0.13	-0.01	0.09	0.04	:	:	0.03	0.04	0.08	:	0.05	:	0.01	0.05	0.05	0.05	0.05	0.09	0.05	0.09	0.04	0.01	:	0.04

Annex 3: Non-users of computers and the Internet, 2007 (B1/C1)

Percentage share of all individuals in population group

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Never used a computer or more than a year ago	35	8	12	9	13	17	11	19	19	:	25	20	28	52	40	35	53	57	33	38	40	47	42	32	39	51	44	63	61
Change from 2006 to 2007	-3	-1	-2	-4	2	0	1	-4	-4	:	-5	-1	-4	-3	-3	-4	-3	-3	-3	0	-4	-5	-3	-2	-4	-3	-3	-4	-6
Never used the Internet or more than a year ago	40	9	14	13	15	19	18	21	25	:	31	25	31	58	45	39	56	64	34	43	47	50	48	38	41	59	51	66	70
Change from 2006 to 2007	-5	-1	-3	-4	2	-1	6	-6	-6	:	-6	-3	-5	-4	-5	-6	-6	-4	-3	-3	-6	-6	-4	-6	-6	-5	-4	-7	-5
Aged 16-24																													
Never used a computer or more than a year ago	9	0	0	1	0	0	0	2	:	:	5	:	6	:	8	18	23	14	:	5	10	7	9	5	4	18	7	30	28
Change from 2006 to 2007	-2	0	0	1	-1	-1	-1	0	:	:	-1	:	-3	:	-2	-3	-2	-6	:	1	0	-3	-3	0	-2	2	-2	-3	-7
Never used the Internet or more than a year ago	12	0	1	3	0	0	7	2	:	:	9	:	6	12	10	22	26	23	4	6	14	9	14	7	4	30	10	33	37
Change from 2006 to 2007	-2	0	0	2	-1	-1	5	-2	:	:	0	:	-4	-7	-3	-5	-6	-6	:	-3	-4	-4	-4	-1	-2	-3	-3	-9	-7
Aged 25-54																													
Never used a computer or more than a year ago	27	4	5	3	5	6	4	12	:	:	15	:	19	47	31	28	44	50	:	28	30	41	34	22	31	45	38	57	57
Change from 2006 to 2007	-3	0	-2	-3	0	-2	0	-4	:	:	-4	:	-3	-3	-4	-4	-3	-4	:	0	-6	-6	-3	-5	-5	-6	-5	-6	-7
Never used the Internet or more than a year ago	32	5	6	6	7	7	11	15	:	:	21	:	22	:	37	32	49	58	:	34	39	46	41	30	33	55	48	62	69
Change from 2006 to 2007	-4	0	-3	-3	0	-2	6	-6	:	:	-6	:	-4	:	-6	-7	-6	-5	:	-3	-8	-8	-5	-9	-7	-7	-6	-8	-6
Aged 55-64																													
Never used a computer or more than a year ago	54	12	24	19	21	31	14	32	30	47	:	32	47	77	72	63	73	88	:	72	64	81	68	71	69	82	75	86	86
Change from 2006 to 2007	-4	-1	-8	-4	2	-1	-3	-8	-6	-7	:	-3	-6	-5	-3	-3	-5	0	:	1	-6	-3	-4	3	-6	0	-2	-3	-4
Never used the Internet or more than a year ago	60	14	29	27	23	35	24	34	:	52	:	40	51	82	77	68	76	90	:	77	69	83	73	78	71	85	80	88	92
Change from 2006 to 2007	-5	-2	-8	-4	0	-2	3	-12	:	-9	:	-7	-7	:	-4	-4	-7	0	:	0	-7	-4	-5	-2	-7	-3	-3	-4	-2
Aged 65-74																													
Never used a computer or more than a year ago	77	40	50	44	46	66	49	66	56	71	:	63	76	94	91	79	90	97	83	90	89	95	91	94	92	93	:	98	97
Change from 2006 to 2007	-3	-9	-2	-17	6	-4	11	0	-8	-10	:	-2	-5	-1	-1	-5	-3	-1	:	-2	-3	-1	-1	1	-2	-2	:	0	-1
Never used the Internet or more than a year ago	82	48	55	50	54	69	56	71	:	77	:	:	79	:	93	83	90	98	:	93	92	96	92	96	93	96	:	98	99
Change from 2006 to 2007	-5	-9	-5	-20	6	-7	9	-3	:	-9	:	:	-6	:	-2	-4	-5	0	:	-1	-2	-1	-2	-2	-2	-1	:	0	0
Women																													
Never used a computer or more than a year ago	38	9	14	11	15	18	12	25	21	:	29	22	31	56	44	35	58	61	33	40	41	48	45	33	41	52	46	63	63
Change from 2006 to 2007	-3	-1	-3	-3	3	-1	0	-6	-5	:	-5	-1	-4	-3	-3	-3	-3	-3	-4	-2	-4	-5	-2	-3	-4	-4	-4	-4	-5
Never used the Internet or more than a year ago	43	10	16	15	17	20	20	28	28	:	36	29	34	62	48	40	61	69	34	45	47	51	51	40	43	62	53	67	73
Change from 2006 to 2007	-5	-1	-4	-4	3	-2	6	-9	-7	:	-5	-3	-6	-3	-4	-6	-6	-4	-3	-4	-7	-6	-3	-7	-5	-5	-5	-7	-4
Men																													
Never used a computer or more than a year ago	32	7	10	7	11	16	9	12	18	:	20	17	24	48	36	35	47	53	32	36	39	46	39	31	37	49	43	63	58
Change from 2006 to 2007	-3	-1	-2	-5	1	0	1	-2	-3	:	-5	-1	-3	-4	-4	-5	-3	-3	-2	2	-4	-5	-4	-1	-5	-2	-3	-4	-6
Never used the Internet or more than a year ago	36	8	12	11	13	18	15	14	21	:	25	21	27	54	41	39	51	59	34	41	46	49	45	37	39	57	49	66	68
Change from 2006 to 2007	-5	-2	-2	-5	1	-1	5	-4	-5	:	-6	-3	-5	-5	-5	-6	-6	-4	-2	-1	-6	-6	-5	-4	-6	-5	-3	-6	-5

Lower educational level																													
Never used a computer or more than a year ago	59	13	25	18	22	33	22	32	54	:	48	29	49	67	66	65	75	86	44	68	64	62	53	55	58	81	61	85	80
Change from 2006 to 2007	-2	-3	-5	-21	4	2	3	-10	-6	:	-5	0	-4	-4	-3	-3	-3	-2	:	-2	-3	-3	-5	7	-4	0	-1	1	-17
Never used the Internet or more than a year ago	64	17	29	21	25	35	30	35	:	:	54	35	53	74	71	69	78	90	45	73	72	63	58	60	59	85	64	86	85
Change from 2006 to 2007	-2	-2	-6	-26	2	1	8	-14	:	:	-6	-1	-5	-4	-4	-4	-5	-2	:	-3	-5	-3	-4	5	-4	-2	-1	-1	-13
Middle educational level																													
Never used a computer or more than a year ago	28	7	6	8	10	15	9	7	14	:	21	19	20	9	19	27	32	44	36	34	26	55	44	28	41	49	46	62	58
Change from 2006 to 2007	-4	1	-2	-5	0	-1	0	-6	-2	:	-4	-1	-4	-2	-2	-3	-2	-1	-3	0	-1	-5	-3	-6	-6	-2	-4	-7	-11
Never used the Internet or more than a year ago	34	7	8	13	12	17	16	10	19	:	28	25	23	:	24	33	36	54	37	40	32	59	51	35	44	62	55	67	71
Change from 2006 to 2007	-5	-1	-3	-5	0	-2	4	-8	-5	:	-6	-3	-6	:	-5	-6	-5	-2	-3	-4	-4	-7	-4	-11	-8	-4	-5	-10	-7
Higher educational level																													
Never used a computer or more than a year ago	9	1	3	3	4	4	3	4	:	:	8	9	8	:	9	7	17	22	:	7	10	13	11	7	11	17	11	22	12
Change from 2006 to 2007	-2	0	0	0	-1	-1	0	-1	:	:	-2	-3	-1	:	-1	-3	-2	-1	:	1	-3	-4	-1	0	-2	-4	-2	-8	-3
Never used the Internet or more than a year ago	12	1	3	6	4	5	10	4	:	:	11	13	9	:	13	10	19	29	:	9	13	16	12	9	12	24	15	27	20
Change from 2006 to 2007	-2	-1	-1	2	0	-1	5	-2	:	:	-2	-4	-3	:	-2	-4	-5	-3	:	1	-5	-5	-2	-1	-3	-7	-3	-11	-6
Densely populated areas																													
Never used a computer or more than a year ago	30	:	11	6	11	10	7	19	20	:	19	19	27	45	34	24	49	48	31	31	29	32	35	26	31	45	36	47	47
Change from 2006 to 2007	-3	:	-1	-5	3	-2	-2	-7	-5	:	-6	-2	-4	-3	-3	-6	-3	0	-2	7	-4	-5	-6	2	-5	-3	0	-4	-6
Never used the Internet or more than a year ago	35	:	14	11	12	11	16	23	26	:	23	24	30	51	39	28	52	55	31	38	34	34	39	30	33	52	41	51	57
Change from 2006 to 2007	-4	:	-2	-5	4	-3	7	-8	-6	:	-7	-3	-5	-5	-5	-7	-6	-2	-2	7	-5	-6	-7	-2	-6	-5	-2	-7	-6
Intermediate density																													
Never used a computer or more than a year ago	33	6	10	5	13	13	8	20	:	:	24	20	28	54	41	36	54	63	:	34	39	:	45	:	:	54	49	66	:
Change from 2006 to 2007	-3	-1	-6	-3	3	1	1	-1	:	:	-6	-1	-3	-6	-3	-4	-3	-3	:	-8	-4	:	-1	:	:	-2	4	-4	:
Never used the Internet or more than a year ago	38	8	12	9	15	16	18	21	:	:	30	25	31	62	46	41	58	69	:	38	48	:	51	:	:	63	57	69	:
Change from 2006 to 2007	-5	0	-6	-2	2	1	10	-4	:	:	-7	-3	-5	-5	-4	-6	-5	-4	:	-9	-5	:	0	:	:	-5	4	-7	:
Thinly populated areas																													
Never used a computer or more than a year ago	44	10	14	12	15	22	13	16	:	:	30	22	38	62	51	44	58	64	35	44	49	58	46	34	46	62	51	76	79
Change from 2006 to 2007	-4	-1	-2	-4	-1	0	2	-6	:	:	-3	-1	-3	1	-4	-2	:	-5	-3	2	-5	-5	-3	-4	-3	-1	-9	-4	-5
Never used the Internet or more than a year ago	50	11	16	16	17	24	18	17	:	:	37	29	42	67	56	49	62	70	37	49	56	61	53	41	48	72	59	80	87
Change from 2006 to 2007	-5	-3	-3	-5	-2	-1	4	-9	:	:	-4	-2	-5	-1	-6	-6	-4	-4	-3	-2	-8	-6	-4	-7	-5	-2	-9	-6	-3
Objective 1 regions																													
Never used a computer or more than a year ago	48	8	7	:	:	:	:	:	:	:	:	24	39	55	46	:	61	57	33	38	44	47	44	33	39	:	44	63	61
Change from 2006 to 2007	-1	:	-1	:	:	:	:	:	:	:	:	-1	-4	-3	-2	:	-3	-3	-3	0	-1	-5	-2	-2	-4	:	-3	:	-6
Never used the Internet or more than a year ago	55	9	12	:	:	:	:	:	:	:	:	:	42	62	51	:	65	64	34	43	51	50	50	39	41	:	51	66	70
Change from 2006 to 2007	-2	:	2	:	:	:	:	:	:	:	:	:	-5	-3	-3	:	-6	-4	-3	-3	-2	-6	-3	-6	-6	:	-4	:	-5
Other regions																													
Never used a computer or more than a year ago	26	:	12	:	13	17	11	19	19	:	:	19	26	43	37	35	49	:	:	:	31	:	26	26	:	51	:	:	:
Change from 2006 to 2007	-2	:	-2	:	2	1	0	-4	-4	:	:	-1	-3	-4	-1	-1	-3	:	:	:	:	:	-7	-2	:	-3	:	:	:
Never used the Internet or more than a year ago	30	:	14	:	15	19	18	21	25	:	:	24	29	48	41	39	52	:	:	:	36	:	30	30	:	59	:	:	:
Change from 2006 to 2007	-3	:	-3	:	2	1	6	-6	-6	:	:	-3	-5	-5	-2	-3	-6	:	:	:	:	:	-8	-7	:	-5	:	:	:
Students																													
Never used a computer or more than a year ago	3	0	0	0	2	0	1	0	:	:	:	:	3	:	1	2	11	6	:	1	4	0	:	1	2	3	2	5	8
Change from 2006 to 2007	0	0	0	0	1	0	1	0	:	:	:	:	-2	:	-1	-1	-1	-3	:	0	0	-1	:	1	0	-1	0	-1	3
Never used the Internet or more than a year ago	6	0	0	3	2	0	6	2	:	:	:	:	4	:	3	6	14	12	:	1	5	1	5	3	2	12	3	9	16
Change from 2006 to 2007	0	0	0	3	1	0	5	1	:	:	:	:	-3	:	-1	0	-3	-4	:	-2	-2	-1	-1	2	0	-6	-1	-11	4

(Self-)Employed																											
Never used a computer or more than a year ago	22	5	4	3	:	7	4	10	10	:	12	7	14	42	27	26	39	45	23	22	22	36	32	20	28	43	32	51	54
Change from 2006 to 2007	-3	0	-2	-2	:	-1	-1	-4	:	:	-3	:	-3	-4	-4	-3	-2	-5	:	-1	-5	-5	-2	-1	-4	-3	-3	-5	-7
Never used the Internet or more than a year ago	28	6	5	6	:	9	12	12	15	:	18	11	17	50	32	31	43	54	25	29	31	41	40	27	30	53	41	56	67
Change from 2006 to 2007	-4	-1	-3	-2	:	-2	5	-7	:	:	-5	:	-5	:	-6	-6	-6	-6	:	-3	-8	-7	-4	-6	-5	-6	-4	-9	-6
Unemployed																											
Never used a computer or more than a year ago	42	16	6	4	14	20	7	36	:	:	:	23	35	56	41	46	49	48	:	51	61	69	63	55	62	44	56	83	69
Change from 2006 to 2007	-3	-8	2	-12	2	-2	3	-10	:	:	:	4	-6	-6	-6	-5	-8	-6	:	6	-2	-5	1	-2	-2	-14	-2	-5	-4
Never used the Internet or more than a year ago	48	16	9	9	17	26	14	37	:	:	:	:	39	:	46	51	53	56	:	58	69	71	70	60	64	55	65	86	77
Change from 2006 to 2007	-1	-15	3	-12	0	1	8	-13	:	:	:	:	-6	:	-7	-7	-11	-7	:	-2	-3	-7	0	-6	-4	-16	-5	-5	-3
Retired or inactive																											
Never used a computer or more than a year ago	67	34	34	32	40	51	37	52	45	:	57	49	62	88	78	63	84	89	73	86	76	88	80	80	78	84	80	95	91
Change from 2006 to 2007	-3	-4	-5	-21	2	-1	5	-8	-6	:	-7	0	-3	-2	-2	-10	-3	-1	-6	2	-4	-3	-4	-2	-1	-1	-2	1	10
Never used the Internet or more than a year ago	72	41	38	39	45	54	44	56	52	:	63	57	65	91	82	68	86	93	74	89	81	90	83	84	79	87	86	96	96
Change from 2006 to 2007	-4	-3	-6	-26	0	-2	4	-9	-8	:	-7	-2	-4	-1	-3	-11	-5	-1	-6	1	-5	-3	-5	-4	-2	-2	-3	1	10
Manual workers																											
Never used a computer or more than a year ago	43	12	9	6	10	13	10	32	24	:	:	:	28	66	46	46	:	73	43	44	44	15	54	42	46	80	54	78	76
Change from 2006 to 2007	-4	0	-7	-6	0	-1	-1	-6	-3	:	:	:	-5	-6	:	-6	:	-6	-1	-2	-9	-4	-5	1	-7	-3	-5	:	-6
Never used the Internet or more than a year ago	50	13	12	9	12	16	18	37	:	:	:	23	32	74	52	50	:	81	45	53	57	18	62	53	50	87	66	81	87
Change from 2006 to 2007	-5	-2	-7	-10	-2	-2	5	-11	:	:	:	-4	-9	-7	:	-10	:	-6	-1	-9	-10	-7	-6	-4	-8	-3	-5	:	-4
Non-manual workers																											
Never used a computer or more than a year ago	11	3	2	2	2	4	2	3	:	:	:	:	8	21	13	17	:	28	:	11	10	61	16	6	14	22	12	29	23
Change from 2006 to 2007	1	-1	-1	-1	-1	0	-1	-3	:	:	:	:	-2	-2	:	-2	:	-1	:	0	-3	-7	0	-1	-2	-7	-2	:	-5
Never used the Internet or more than a year ago	16	4	3	5	3	4	10	4	10	:	:	7	11	29	17	22	:	39	9	16	17	66	23	12	16	33	19	35	39
Change from 2006 to 2007	-1	-1	-2	0	0	-1	5	-4	-1	:	:	-3	-4	-4	:	-5	:	-3	:	-1	-6	-8	-1	-7	-4	-10	-4	:	-6

Annex 4: Computer skills, 2007 – Age and Education (E3)

Percentage share of all individuals in EU27

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
No computer skills	40	15	20	18	21	28	23	22	30	28	34	25	38	52	43	46	56	57	44	39	41	51	45	34	46	53	52	68	71
Low level computer skills	13	15	16	16	12	16	18	10	15	12	12	15	16	9	9	17	8	11	10	12	10	9	17	18	16	10	16	10	14
Medium or high level computer skills	47	70	64	66	67	56	60	68	56	60	54	60	46	38	48	37	36	32	46	49	49	40	38	48	37	37	32	22	15
Aged 16-24, Lower educational level																													
No computer skills	15	1	2	4	3	1	3	4	:	7	7	5	15	12	15	36	32	21	11	1	18	7	9	5	6	21	8	47	45
Low level computer skills	15	11	18	8	10	16	11	6	:	9	12	13	20	17	13	26	10	26	10	4	11	10	17	19	22	22	20	17	24
Medium or high level computer skills	71	88	80	88	87	83	86	90	:	85	82	82	65	71	71	37	57	53	78	95	71	82	73	77	72	57	73	36	30
Aged 16-24, Middle educational level																													
No computer skills	9	1	3	2	1	2	6	0	5	8	:	:	11	:	4	33	17	14	8	5	5	7	11	4	8	17	11	27	34
Low level computer skills	12	2	13	10	7	13	18	0	13	5	:	:	16	:	4	19	8	15	7	7	5	12	21	15	16	18	19	20	26
Medium or high level computer skills	79	97	84	88	92	86	76	100	82	87	95	89	74	98	92	48	75	71	86	88	90	82	68	81	76	65	70	52	40
Aged 16-24, Higher educational level																													
No computer skills	2	0	:	0	:	:	0	0	:	:	:	:	9	:	3	13	6	11	:	:	1	0	:	6	1	8	:	12	9
Low level computer skills	6	0	:	0	:	:	10	5	:	:	:	:	8	0	5	12	4	18	:	:	1	6	:	6	4	7	12	11	23
Medium or high level computer skills	92	100	:	100	:	:	90	95	:	:	99	:	83	:	92	74	90	72	:	:	99	93	:	87	96	85	:	77	68
Aged 25-54, Lower educational level																													
No computer skills	59	23	28	20	28	31	37	33	:	52	41	31	56	66	63	71	76	88	64	69	62	81	:	69	85	94	:	:	:
Low level computer skills	14	25	23	26	16	24	18	12	14	17	19	21	18	12	12	14	8	6	12	11	14	8	9	17	11	2	:	1	3
Medium or high level computer skills	28	52	49	54	56	46	45	56	:	32	40	49	26	22	25	15	17	6	24	19	24	12	:	14	4	5	:	:	:
Aged 25-54, Middle educational level																													
No computer skills	31	10	9	14	10	21	22	6	23	18	13	16	31	10	25	42	31	46	46	29	19	64	40	26	48	54	56	70	73
Low level computer skills	17	13	17	16	11	19	18	12	18	14	12	16	21	9	13	20	12	17	15	18	14	12	22	23	24	14	21	13	16
Medium or high level computer skills	52	76	74	70	79	60	60	82	59	68	74	68	49	81	62	38	57	37	39	53	68	24	38	52	27	32	23	17	10
Aged 25-54, Higher educational level																													
No computer skills	7	0	2	3	5	5	5	4	7	4	5	4	8	2	8	14	13	15	17	2	3	11	4	3	8	16	8	16	12
Low level computer skills	11	7	10	11	7	11	18	7	12	11	9	9	15	6	8	18	10	15	9	5	7	11	14	13	14	12	19	18	28
Medium or high level computer skills	82	93	88	87	88	84	77	88	81	85	87	86	76	92	84	68	76	70	74	93	90	78	82	84	78	72	73	67	60
Aged 55-74, Lower educational level																													
No computer skills	86	54	67	62	59	76	62	68	:	:	76	:	84	:	93	91	94	100	:	96	96	:	:	97	98	99	:	:	:
Low level computer skills	6	23	15	22	15	11	18	10	8	:	8	14	8	4	3	5	2	0	:	3	2	:	2	2	0	0	:	:	0
Medium or high level computer skills	8	23	18	16	26	13	20	22	:	:	16	:	8	:	3	4	3	0	:	1	2	:	:	1	1	0	:	0	:
Aged 55-74, Middle educational level																													
No computer skills	61	31	36	45	39	62	39	21	44	:	:	53	57	:	56	64	60	82	83	78	60	92	76	65	85	78	87	:	92
Low level computer skills	14	23	26	24	15	16	21	16	19	:	:	17	17	:	14	17	11	9	7	9	12	3	11	19	9	12	8	3	7
Medium or high level computer skills	25	46	38	32	46	22	40	63	37	:	:	30	26	:	30	19	30	9	10	13	27	5	13	16	6	11	6	:	2

DANISH TECHNOLOGICAL INSTITUTE

Aged 55-74, Higher educational level

No computer skills	30	3	14	14	16	24	23	11	21	:	27	27	34	23	30	37	45	54	57	27	28	53	27	43	48	51	47	64	57
Low level computer skills	18	20	19	19	17	25	19	13	19	:	17	17	18	24	17	26	15	17	9	19	14	13	20	10	19	14	20	10	23
Medium or high level computer skills	53	77	67	67	68	51	58	76	60	:	57	56	48	53	53	37	41	29	34	54	58	33	53	48	32	34	33	26	20

Annex 5: Computer skills, 2007 – Age and Employment (E3)

Percentage share of all individuals in EU27

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
No computer skills	40	12	16	15	18	21	22	21	29	31	36	26	32	57	44	42	58	63	35	41	46	49	47	36	41	60	50	66	71
Low level computer skills	29	31	39	38	16	26	45	28	41	38	26	41	40	16	23	42	15	22	17	25	22	18	25	34	22	25	24	13	16
Medium or high level computer skills	31	57	46	46	66	53	33	51	30	31	38	34	28	27	34	16	27	15	48	33	32	32	28	30	37	15	26	22	12
Aged 16-24, (Self-)Employed																													
No computer skills	13	3	2	4	1	2	6	6	7	11	6	:	18	11	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Low level computer skills	14	12	16	9	16	14	18	8	11	11	12	:	18	16	14	15	15	15	15	15	15	15	16	16	16	16	16	16	16
Medium or high level computer skills	74	84	81	87	83	83	76	86	82	78	83	85	64	73	74	73	72	71	71	70	69	68	67	66	65	64	63	62	61
Aged 16-24, Unemployed																													
No computer skills	26	0	0	0	14	0	0	0	:	:	:	:	18	:	24	48	41	20	:	:	32	30	:	5	27	22	26	79	68
Low level computer skills	14	20	18	0	15	22	18	8	:	:	:	:	19	:	14	22	11	26	:	:	17	17	:	14	24	9	23	8	16
Medium or high level computer skills	60	80	82	100	71	78	82	92	:	:	85	:	63	:	62	30	47	53	:	:	50	53	47	81	50	69	52	13	16
Aged 16-24, Retired or inactive																													
No computer skills	34	0	9	9	0	7	8	0	:	:	:	:	49	:	46	59	69	43	:	:	41	:	:	17	11	19	42	:	:
Low level computer skills	17	29	17	9	0	20	4	0	:	:	:	:	19	:	12	16	7	18	:	:	15	:	33	45	48	19	27	13	10
Medium or high level computer skills	50	71	74	82	100	73	88	100	:	:	:	:	32	:	42	25	23	39	:	:	45	:	:	38	42	63	31	:	:
Aged 25-54, (Self-)Employed																													
No computer skills	28	9	8	9	11	15	15	14	18	16	23	13	24	43	29	35	40	44	33	25	24	44	36	24	37	42	44	57	64
Low level computer skills	15	14	14	16	11	17	18	8	15	13	14	15	18	11	11	17	11	14	12	15	13	12	20	21	21	11	21	13	17
Medium or high level computer skills	58	77	78	75	79	69	67	78	67	71	62	72	58	46	60	48	49	43	54	60	64	44	44	56	42	46	36	29	18
Aged 25-54, Unemployed																													
No computer skills	46	25	12	15	21	19	18	30	:	:	28	23	45	53	40	58	55	49	:	47	63	77	71	54	74	41	66	88	:
Low level computer skills	14	0	19	0	18	23	24	22	:	:	19	17	19	11	11	22	8	15	:	15	9	7	12	23	12	24	15	5	13
Medium or high level computer skills	40	75	69	85	62	59	58	48	:	:	53	60	36	36	49	20	37	36	:	38	28	16	17	22	14	34	18	7	:
Aged 25-54, Retired or inactive																													
No computer skills	60	38	34	28	42	34	45	41	50	38	46	33	57	:	63	58	80	77	64	78	59	73	51	38	57	83	75	:	91
Low level computer skills	14	22	23	16	16	17	20	5	16	20	16	23	19	7	11	18	8	11	11	10	12	10	21	24	20	5	13	8	7
Medium or high level computer skills	26	39	43	56	43	49	34	53	34	43	38	44	24	:	26	24	12	12	25	11	29	18	28	38	23	12	12	:	2
Aged 55-74, (Self-)Employed																													
No computer skills	46	25	23	25	25	36	34	22	38	24	47	26	40	69	63	67	61	79	63	45	40	68	51	50	63	78	60	74	85
Low level computer skills	14	23	18	23	13	20	21	11	15	14	13	19	18	10	10	15	10	7	10	16	12	8	17	17	14	6	15	8	9
Medium or high level computer skills	40	52	59	52	63	44	45	67	48	62	40	55	42	21	27	18	29	14	27	39	48	24	31	33	22	16	25	18	6
Aged 55-74, Unemployed																													
No computer skills	63	100	22	34	54	57	34	67	:	:	:	:	67	:	81	77	83	81	:	83	86	:	:	87	84	100	:	:	:
Low level computer skills	11	0	13	0	8	17	12	13	:	:	:	:	11	:	7	6	7	19	:	0	2	:	:	8	6	0	:	:	:
Medium or high level computer skills	26	0	64	66	38	26	53	20	:	:	:	:	22	:	13	17	10	0	:	17	12	:	:	5	11	0	:	:	:

													Aged 55-74, Retired or inactive														
No computer skills	77	55	57	54	54	74	51	51	66	67	72	60	75	89	88	84	90	94	:	85	82	96	87	84	94	93	91	98	:
Low level computer skills	9	21	19	22	17	13	18	11	15	12	9	15	11	5	5	8	4	3	4	7	6	2	7	9	5	4	5	1	3
Medium or high level computer skills	14	23	25	25	29	13	31	38	19	21	19	24	14	6	7	7	6	3	:	8	12	2	7	7	2	3	3	1	:

Annex 6: Internet skills, 2007 – Age and Education (E4)

Percentage share of all individuals in EU27

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
No internet skills	40	12	16	15	18	21	22	21	29	31	36	26	32	57	44	42	58	63	35	41	46	49	47	36	41	60	50	66	71
Low level internet skills	29	31	39	38	16	26	45	28	41	38	26	41	40	16	23	42	15	22	17	25	22	18	25	34	22	25	24	13	16
Medium or high level internet skills	31	57	46	46	66	53	33	51	30	31	38	34	28	27	34	16	27	15	48	33	32	32	28	30	37	15	26	22	12
Aged 16-24, Lower educational level																													
No internet skills	16	0	2	4	1	0	9	5	:	10	8	6	9	16	15	32	36	26	7	5	20	8	14	7	5	35	7	44	47
Low level internet skills	22	11	14	19	10	10	33	15	:	28	19	23	36	19	22	44	12	41	10	14	22	17	23	31	17	33	26	18	25
Medium or high level internet skills	62	89	84	77	88	89	58	79	:	62	72	72	55	65	63	24	51	33	83	81	58	75	63	62	78	32	67	38	28
Aged 16-24, Middle educational level																													
No internet skills	9	1	0	3	0	0	7	0	9	9	2	2	4	2	4	21	19	19	2	8	6	7	13	4	3	31	8	23	33
Low level internet skills	23	4	14	14	5	7	35	9	31	33	10	22	36	11	14	44	13	36	6	24	17	17	28	30	19	34	26	20	30
Medium or high level internet skills	68	95	86	83	95	93	58	91	60	58	88	76	59	86	82	34	68	45	91	68	77	76	59	65	78	35	66	57	37
Aged 16-24, Higher educational level																													
No internet skills	3	0	:	0	:	:	7	0	:	:	:	:	8	:	4	17	7	15	:	:	1	2	:	0	1	12	:	8	8
Low level internet skills	16	30	:	0	:	:	16	0	:	:	:	:	37	:	12	45	10	37	:	:	15	11	:	22	7	37	:	16	24
Medium or high level internet skills	81	70	:	100	:	:	77	100	:	:	90	:	55	94	84	38	83	47	:	:	84	86	:	78	92	51	81	76	68
Aged 25-54, Lower educational level																													
No internet skills	60	20	18	13	22	19	29	30	:	56	45	:	48	72	65	67	78	92	54	74	71	79	:	70	81	95	:	:	:
Low level internet skills	24	47	48	46	26	32	50	31	28	31	30	45	36	17	21	28	11	6	19	19	16	12	13	23	11	5	:	:	5
Medium or high level internet skills	16	32	34	41	52	48	21	39	:	13	24	:	17	11	14	5	11	1	27	8	13	10	:	8	8	1	:	:	:
Aged 25-54, Middle educational level																													
No internet skills	30	5	5	11	7	11	16	7	20	20	13	14	22	15	25	35	34	56	30	31	24	60	43	27	39	69	53	65	75
Low level internet skills	39	35	46	44	15	30	53	38	55	50	41	51	51	30	36	55	25	30	25	37	35	23	32	45	32	24	30	17	18
Medium or high level internet skills	31	61	50	46	79	58	30	55	25	30	47	35	28	55	40	10	41	14	45	32	40	17	26	27	29	6	17	18	8
Aged 25-54, Higher educational level																													
No internet skills	7	0	1	3	2	2	9	2	9	6	4	4	5	3	9	13	13	22	11	1	4	8	5	2	5	22	5	15	13
Low level internet skills	39	18	38	38	10	27	45	25	45	42	34	48	51	27	33	58	24	47	17	30	36	28	30	47	30	47	40	25	45
Medium or high level internet skills	54	81	60	59	89	71	46	74	46	52	63	48	43	70	58	29	63	31	73	69	60	63	65	51	66	31	55	60	41
Aged 55-74, Lower educational level																													
No internet skills	87	50	61	55	57	67	60	69	:	:	:	:	81	:	95	90	95	100	:	96	97	:	:	98	98	99	:	:	:
Low level internet skills	10	37	31	37	19	21	32	22	19	:	11	24	14	4	4	9	3	0	:	3	2	:	3	2	2	1	:	:	0
Medium or high level internet skills	4	13	8	8	24	12	8	9	:	:	:	:	4	:	1	0	2	0	:	1	1	:	:	0	0	0	:	0	:
Aged 55-74, Middle educational level																													
No internet skills	64	27	32	39	35	52	41	29	:	:	:	:	53	:	59	61	65	90	:	84	68	91	79	76	82	85	85	:	94
Low level internet skills	27	47	51	49	22	31	46	41	44	:	34	32	36	:	23	36	20	8	13	11	22	6	14	17	13	13	12	4	5
Medium or high level internet skills	9	26	17	11	42	16	12	30	:	:	:	:	11	:	18	3	15	2	:	5	10	3	7	6	5	2	3	:	1

Aged 55-74, Higher educational level

No internet skills	31	1	11	20	12	17	23	13	:	:	:	:	27	:	34	31	47	64	46	33	37	56	34	39	44	51	47	63	62
Low level internet skills	43	53	59	43	18	40	55	45	47	:	43	49	54	38	38	62	27	28	25	43	29	22	31	43	30	35	35	18	26
Medium or high level internet skills	26	45	31	38	70	43	22	42	:	:	:	:	19	:	28	7	26	8	29	24	34	22	36	18	26	14	18	19	12

Annex 7: Internet skills, 2007 – Age and Employment (E4)

Percentage share of all individuals in EU27

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
No internet skills	40	12	16	15	18	21	22	21	29	31	36	26	32	57	44	42	58	63	35	41	46	49	47	36	41	60	50	66	71
Low level internet skills	29	31	39	38	16	26	45	28	41	38	26	41	40	16	23	42	15	22	17	25	22	18	25	34	22	25	24	13	16
Medium or high level internet skills	31	57	46	46	66	53	33	51	30	31	38	34	28	27	34	16	27	15	48	33	32	32	28	30	37	15	26	22	12
Aged 16-24, (Self-)Employed																													
No internet skills	13	1	1	2	2	0	8	6	8	13	9	:	8	17	11	27	33	39	5	12	22	11	21	9	5	50	12	38	61
Low level internet skills	28	18	17	14	10	9	35	15	36	40	24	29	48	21	19	43	15	37	9	33	22	20	37	38	22	26	31	18	21
Medium or high level internet skills	59	81	82	84	88	91	58	78	56	47	67	:	44	62	69	30	52	25	86	56	56	70	42	53	73	24	57	44	18
Aged 16-24, Unemployed																													
No internet skills	27	0	0	0	0	0	10	0	:	:	:	:	9	:	25	32	44	28	:	:	42	24	:	5	29	38	19	75	60
Low level internet skills	19	60	7	32	11	21	49	40	:	:	:	:	28	:	14	54	11	46	:	:	26	38	25	17	10	34	33	10	17
Medium or high level internet skills	53	40	93	68	89	79	41	60	:	:	77	:	63	:	61	14	45	26	:	:	32	38	:	78	61	28	48	15	23
Aged 16-24, Retired or inactive																													
No internet skills	34	0	4	9	0	0	8	0	:	:	:	:	41	:	43	54	75	43	:	:	41	:	:	11	9	31	:	:	87
Low level internet skills	23	14	9	9	0	7	15	0	:	:	:	:	29	:	20	33	4	13	:	:	30	:	27	67	37	36	38	:	8
Medium or high level internet skills	43	86	86	82	100	93	77	100	:	:	:	:	30	:	37	13	21	44	63	:	30	:	:	21	54	33	:	:	5
Aged 25-54, (Self-)Employed																													
No internet skills	28	7	5	7	7	7	14	12	17	19	25	11	17	49	29	31	42	51	22	25	29	40	38	25	30	52	41	54	65
Low level internet skills	37	33	42	42	15	29	50	30	50	48	34	51	50	22	31	51	22	32	23	36	32	26	31	45	31	32	33	18	22
Medium or high level internet skills	35	60	53	51	78	63	36	58	32	34	40	38	32	29	40	18	36	17	56	38	39	34	31	30	40	16	27	28	13
Aged 25-54, Unemployed																													
No internet skills	47	25	7	8	19	20	11	27	:	:	33	:	38	:	42	54	58	59	:	59	70	77	72	58	68	56	66	86	82
Low level internet skills	26	0	47	57	23	27	52	36	:	:	27	43	35	20	29	38	12	25	:	15	12	15	14	31	20	19	21	7	12
Medium or high level internet skills	27	75	46	35	59	53	38	37	:	:	40	:	27	:	29	8	30	16	:	26	18	9	14	10	12	24	13	7	6
Aged 25-54, Retired or inactive																													
No internet skills	59	25	21	21	34	19	26	44	:	42	:	:	52	:	65	54	83	83	50	83	67	70	52	38	48	85	71	:	92
Low level internet skills	25	42	50	43	30	33	45	20	35	41	25	46	31	9	20	40	9	12	18	17	15	14	28	38	27	10	19	6	6
Medium or high level internet skills	16	33	29	35	36	47	29	35	:	17	:	:	17	:	15	6	8	4	32	0	18	16	20	23	25	4	10	:	2
Aged 55-74, (Self-)Employed																													
No internet skills	46	21	17	22	21	27	30	19	:	25	:	:	33	:	65	65	64	83	56	49	44	70	55	51	56	79	58	74	86
Low level internet skills	35	48	56	51	20	41	52	35	44	48	29	53	48	16	22	32	19	13	21	33	30	16	26	34	27	16	28	13	10
Medium or high level internet skills	19	31	27	28	59	32	18	46	:	27	:	:	19	:	13	3	16	4	23	18	27	15	19	15	17	4	13	13	4
Aged 55-74, Unemployed																													
No internet skills	65	66	15	34	29	44	41	66	:	:	:	:	64	:	86	75	:	90	:	83	87	:	:	89	84	100	:	:	:
Low level internet skills	24	34	59	16	23	34	32	20	:	:	:	40	24	:	7	25	9	10	:	12	9	:	:	11	7	0	5	6	:
Medium or high level internet skills	11	0	25	50	47	23	26	14	:	:	:	:	13	:	7	0	:	0	:	5	5	:	:	0	10	0	:	:	:

Aged 55-74: Retired or inactive																													
No internet skills	80	53	52	51	52	65	54	56	:	72	:	:	72	:	90	82	92	97	:	89	86	96	90	91	93	94	90	98	:
Low level internet skills	15	35	37	40	20	21	38	33	28	21	14	26	22	6	6	17	5	3	9	8	8	3	7	7	5	4	7	1	2
Medium or high level internet skills	5	11	11	9	28	14	8	11	:	7	:	:	6	:	4	2	3	1	:	3	5	1	3	2	1	2	2	1	:

Annex 8: Barriers to Internet access, 2006 (A5)

Percentage share of households with no internet access

Note: Date for CZ and FI varies from that of other countries:

- *CZ: From households which have PC but do not have internet access*
- *FI: Instead of asking 'the main reason' in question A5, Finland asks for every alternative 'much importance – somewhat importance – no importance'. Alternatives 'much importance' and 'somewhat importance' are summed*

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	MT	HU	LT	CZ	SK	LV	CY	PL	BG	RO
																	All households													
Have access elsewhere	15	21	12	22	17	10	11	9	:	13	20	28	13	20	21	16	15	8	36	21	7	29	13	6	34	25	17	8	8	13
Don't want	8	2	24	3	30	7	23	15	5	:	12	6	7	16	:	22	3	18	51	32	13	25	1	1	6	11	34	3	5	7
Don't need	41	38	50	27	50	9	45	66	30	:	63	55	45	56	:	33	40	56	53	61	47	44	62	1	38	37	59	43	37	22
Equipment cost	26	11	10	11	9	:	14	8	23	28	13	34	25	54	:	17	11	11	69	37	11	48	26	2	32	37	17	36	37	39
Access cost	23	14	7	9	11	:	6	6	18	:	12	33	15	51	:	7	11	11	64	36	10	43	19	4	33	24	18	35	20	33
Lack of skills	27	19	12	23	6	:	8	19	31	25	12	31	16	54	38	15	27	24	57	35	18	25	7	1	13	18	45	19	34	35
Physical disability	2	2	2	0	0	:	0	2	:	:	:	:	1	2	:	0	1	1	4	3	1	7	0	2	0	1	1	2	7	1
Privacy or security concerns	5	2	2	0	1	:	0	4	8	5	2	14	2	9	:	1	3	3	6	8	0	5	1	:	1	0	16	2	1	1
Other reasons	12	23	13	26	1	:	11	0	14	22	7	3	13	36	:	25	11	0	4	4	15	23	3	2	5	5	6	7	14	14

Annex 9: Barriers to internet access, selected groups 2006 (A5)

Percentage share of households with no internet access (multiple choice)

	EU27	DK	FI	AT	DE	BE	GR	EE	CZ	CY	BG
		All households									
Have access elsewhere	15	17	10	20	28	13	8	36	6	17	8
Don't want	8	30	7	12	6	7	18	51	1	34	5
Don't need	41	50	9	63	55	45	56	53	1	59	37
Equipment costs	27	9	:	13	34	25	11	69	2	17	37
Access costs	23	11	:	12	33	15	11	64	4	18	20
Lack skills	27	6	:	12	31	16	24	57	1	45	34
Physical disability	2	0	:	:	:	1	1	4	2	1	7
Privacy or security concerns	5	1	:	2	14	2	3	6	:	16	1
Other reason	12	1	:	7	3	13	0	4	2	6	14
		Densely populated areas									
Have access elsewhere	17	20	12	22	30	14	12	31	5	17	14
Don't want	7	26	7	14	5	6	26	51	:	29	6
Don't need	38	45	9	59	54	42	45	55	:	58	33
Equipment costs	28	14	:	17	35	29	12	72	1	17	39
Access costs	25	16	:	16	34	16	14	66	3	18	23
Lack skills	27	5	:	11	30	15	25	56	:	38	28
Physical disability	2	0	:	:	:	1	0	:	1	1	5
Privacy or security concerns	6	0	:	:	14	1	4	:	:	13	1
Other reason	12	1	:	6	:	11	1	:	3	6	11
		Intermediate density									
Have access elsewhere	15	18	18	20	26	12	11	:	7	20	5
Don't want	8	33	12	12	6	7	13	:	:	54	5
Don't need	44	55	13	64	55	49	47	:	:	67	31
Equipment costs	23	5	:	12	32	18	10	:	2	25	38
Access costs	21	10	:	12	31	13	13	:	4	28	18
Lack skills	26	5	:	12	29	17	39	:	:	38	34
Physical disability	2	0	:	:	:	1	3	:	2	1	7
Privacy or security concerns	6	2	:	:	14	2	3	:	:	17	:
Other reason	12	0	:	6	:	15	0	:	:	3	20
		Thinly populated areas									
Have access elsewhere	13	15	8	19	24	8	6	39	5	14	5
Don't want	9	30	5	11	:	9	13	51	:	36	4
Don't need	42	50	9	66	58	56	63	52	2	58	40
Equipment costs	26	7	:	10	33	24	10	67	2	13	34
Access costs	23	7	:	9	32	15	9	61	5	13	17
Lack skills	28	7	:	14	34	16	23	59	1	58	38
Physical disability	2	0	:	:	:	0	1	6	2	1	8
Privacy or security concerns	4	1	:	:	:	5	2	6	:	20	1
Other reason	12	1	:	8	:	12	0	5	2	6	15
		Objective 1 regions									
Have access elsewhere	15	:	7	11	25	8	8	36	5	:	:
Don't want	8	:	3	8	:	5	18	51	1	:	:
Don't need	38	:	5	75	54	46	56	53	1	:	:
Equipment costs	30	:	:	12	36	31	11	69	2	:	:
Access costs	28	:	:	13	31	21	11	64	5	:	:
Lack skills	27	:	:	16	31	14	24	57	1	:	:
Physical disability	2	:	:	:	:	1	1	4	2	:	:
Privacy or security concerns	3	:	:	:	13	3	3	6	:	:	:
Other reason	10	:	:	8	:	13	0	4	2	:	:
		Other regions									
Have access elsewhere	17	17	12	21	28	14	:	:	8	17	:
Don't want	8	30	8	12	6	7	:	:	0	34	:
Don't need	44	50	11	63	55	45	:	:	:	59	:
Equipment costs	21	9	:	13	33	23	:	:	:	17	:
Access costs	19	11	:	12	33	14	:	:	:	18	:
Lack skills	27	6	:	12	31	16	:	:	:	45	:
Physical disability	1	0	:	:	:	1	:	:	:	1	:
Privacy or security concerns	7	1	:	:	14	2	:	:	0	16	:
Other reason	10	1	:	7	3	13	:	:	:	6	:

		Single parents with children									
Have access elsewhere	16	23	10	17	35	13	34	:	11	25	:
Don't want	7	17	14	8	:	6	4	:	0	19	:
Don't need	19	19	14	45	:	24	34	:	:	38	39
Equipment costs	44	24	:	36	55	48	24	:	7	31	30
Access costs	32	20	:	23	56	26	23	:	9	30	:
Lack skills	17	9	:	:	:	14	18	:	:	32	30
Physical disability	:	0	:	:	:	0	0	:	:	0	:
Privacy or security concerns	:	0	:	:	:	1	17	:	:	25	:
Other reason	16	0	:	9	:	9	0	:	:	0	24

Annex 10: Reasons for not having taken a computer course on computer use recently, 2007 (E2)

Percentage share of individuals who have used a computer, but have not taken a computer course within the last 3 years (other category not shown)

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Skills are sufficient	46	44	70	31	61	47	60	66	54	41	65	49	56	61	36	49	34	40	:	48	62	40	18	42	36	53	33	38	30
Rarely use computers	21	29	15	12	26	30	36	14	21	28	19	14	18	23	28	19	15	29	:	45	22	29	33	20	27	30	23	18	28
Lack of time	13	18	3	9	3	12	9	7	8	12	9	10	11	14	29	18	19	17	:	11	15	22	24	11	21	7	16	21	22
Course costs	6	7	1	1	0	2	2	0	2	5	2	7	2	17	7	4	8	5	:	5	12	7	8	4	6	1	9	10	:
No suitable offer available	3	4	1	4	1	5	3	2	:	3	2	3	2	8	6	3	2	5	:	2	4	2	3	3	3	1	7	3	1
Courses are too difficult	1	1	0	1	0	:	1	1	:	2	0	1	2	5	1	1	1	1	:	3	2	2	4	1	2	0	1	1	4
Aged 16-24																													
Skills are sufficient	57	70	85	68	75	77	80	71	65	58	76	64	71	66	46	51	40	34	:	61	63	61	20	53	44	44	40	39	33
Rarely use computers	13	15	6	5	13	13	12	7	15	16	13	:	10	13	18	15	16	32	:	37	16	24	28	14	15	41	12	15	17
Lack of time	11	9	1	5	1	4	6	4	:	12	:	7	4	9	27	13	20	12	:	5	15	12	16	6	24	9	13	14	20
Course costs	8	3	1	1	0	2	5	1	:	12	:	:	2	16	8	11	14	7	:	3	15	6	13	7	9	1	23	16	39
No suitable offer available	3	3	0	2	2	2	2	0	:	:	:	:	1	9	6	4	3	8	:	1	3	1	:	2	3	0	8	4	1
Courses are too difficult	1	1	0	0	0	:	0	3	:	:	:	:	2	:	1	1	1	1	:	0	3	2	4	0	1	0	1	:	4
Aged 25-54																													
Skills are sufficient	46	45	72	28	66	49	62	68	56	41	67	49	56	59	34	51	33	41	:	47	61	38	18	41	37	55	33	38	31
Rarely use computers	20	28	14	10	21	27	25	15	19	27	18	13	17	24	29	18	14	27	:	42	21	29	32	21	26	28	23	18	29
Lack of time	16	20	4	11	3	15	11	8	:	14	:	13	14	17	31	21	20	19	:	13	17	24	27	13	23	8	18	24	24
Course costs	6	8	1	2	0	3	3	0	:	7	:	8	2	:	6	3	8	5	:	5	12	7	8	7	6	2	10	9	16
No suitable offer available	3	4	1	3	2	6	4	2	:	:	:	:	2	9	6	3	2	5	:	2	5	2	3	4	3	1	7	3	2
Courses are too difficult	1	1	0	0	0	:	1	0	:	:	:	:	1	:	2	1	1	1	:	4	2	2	4	2	2	0	1	1	4
Aged 55-64																													
Skills are sufficient	42	30	59	18	51	27	52	66	53	57	32	41	49	64	31	43	30	43	:	37	66	35	21	21	32	57	30	34	26
Rarely use computers	26	39	24	21	33	43	44	14	22	24	35	18	24	34	37	29	15	34	:	67	27	33	41	27	34	35	30	30	43
Lack of time	8	16	4	6	3	12	9	8	:	:	9	6	7	:	20	11	11	7	:	2	7	14	17	7	10	4	10	14	9
Course costs	4	10	2	1	0	2	4	0	:	:	9	:	1	:	5	4	11	2	:	8	11	12	4	13	8	1	12	5	21
No suitable offer available	2	2	0	5	0	6	3	0	:	:	:	:	2	:	5	2	2	5	:	1	2	2	3	6	3	2	4	:	:
Courses are too difficult	1	2	0	2	0	:	1	2	:	:	:	:	1	:	1	2	1	3	:	2	1	6	4	3	3	1	1	:	5
Aged 65-74																													
Skills are sufficient	32	19	49	4	30	26	47	45	28	42	21	34	37	55	21	34	31	34	:	45	58	20	11	19	11	40	:	24	9
Rarely use computers	39	38	28	23	52	52	:	26	39	40	54	24	32	63	52	35	19	51	:	51	44	56	42	42	54	51	:	24	58
Lack of time	4	16	1	7	1	3	2	5	:	:	:	:	3	:	8	5	11	1	:	4	2	6	:	1	3	3	:	:	:
Course costs	3	6	2	2	1	1	2	0	:	:	:	:	1	:	2	2	12	0	:	6	11	11	:	4	8	0	:	:	:
No suitable offer available	2	9	0	7	0	4	2	3	:	:	:	:	2	:	2	3	2	0	:	0	5	0	:	1	1	0	:	:	:
Courses are too difficult	1	2	2	3	1	:	1	3	:	:	:	:	5	:	1	3	1	0	:	6	3	5	:	0	6	0	:	0	7

Women																															
Skills are sufficient	42	40	68	24	59	44	57	57	51	36	61	40	52	60	32	47	29	39	:	48	59	39	15	39	37	54	31	36	31		
Rarely use computers	23	29	17	14	26	34	39	18	22	30	23	16	19	26	29	21	16	31	:	41	23	30	35	21	26	29	24	17	29		
Lack of time	13	17	3	10	3	12	10	10	8	14	:	10	11	13	31	18	18	18	:	12	16	21	24	10	19	7	15	21	21		
Course costs	7	3	0	0	0	3	3	0	:	:	:	9	2	31	8	14	26	7	:	2	13	3	9	10	7	1	9	12	30		
No suitable offer available	3	4	1	5	2	6	4	2	:	3	:	3	2	8	6	3	2	5	:	2	4	2	2	3	3	1	7	4	2		
Courses are too difficult	1	1	0	1	0	:	1	1	:	2	:	:	2	5	2	1	1	1	:	4	2	2	4	1	3	0	1	1	4		
Men																															
Skills are sufficient	50	47	73	37	63	50	64	75	58	45	69	56	60	62	39	52	37	42	:	47	64	41	21	45	35	53	35	39	30		
Rarely use computers	20	28	13	10	25	27	33	11	20	26	17	12	17	21	28	17	14	27	:	47	21	29	32	19	28	32	22	20	28		
Lack of time	13	19	3	8	2	12	8	5	7	11	:	10	11	15	27	18	20	16	:	9	14	22	24	12	23	8	16	21	22		
Course costs	5	2	0	2	0	2	0	0	:	:	:	5	2	25	5	6	17	4	:	3	6	5	6	12	3	2	7	8	33		
No suitable offer available	3	3	1	3	1	5	3	2	:	3	:	3	2	9	5	3	2	5	:	2	5	2	4	4	2	0	6	3	1		
Courses are too difficult	1	1	0	1	0	:	1	1	:	:	:	:	2	5	1	1	1	1	:	2	2	2	3	1	2	0	1	1	4		
Lower educational level																															
Skills are sufficient	36	33	58	37	48	44	54	53	33	31	55	42	41	49	22	30	28	21	:	24	43	27	8	40	11	20	26	34	16		
Rarely use computers	31	39	24	18	37	36	62	23	34	39	27	14	25	31	42	28	23	49	:	60	35	29	38	20	23	62	17	16	31		
Lack of time	14	16	3	12	2	7	7	8	:	12	:	9	11	16	29	17	26	13	:	18	18	23	9	9	31	4	11	7	20		
Course costs	8	6	1	2	0	2	2	0	:	:	:	9	4	:	7	1	3	6	:	5	6	31	14	4	9	1	8	16	6		
No suitable offer available	3	3	1	4	2	3	2	2	:	3	:	:	3	11	5	3	2	4	:	0	5	3	:	3	5	0	6	3	1		
Courses are too difficult	2	1	1	0	0	:	0	2	:	2	:	:	4	7	2	4	1	1	:	8	3	6	11	1	4	0	3	:	6		
Middle educational level																															
Skills are sufficient	44	40	70	27	63	43	59	72	51	46	65	47	54	74	37	48	34	35	:	46	63	27	16	39	27	41	28	29	23		
Rarely use computers	21	28	15	14	24	35	37	11	23	21	20	15	19	13	25	20	13	30	:	47	21	38	35	22	33	41	27	22	33		
Lack of time	14	21	3	8	3	13	10	8	9	12	:	11	12	13	31	18	18	19	:	10	15	25	25	11	23	8	17	25	23		
Course costs	6	6	1	1	0	2	1	0	:	6	:	7	2	8	8	4	5	7	:	4	9	4	8	6	2	1	4	12	10		
No suitable offer available	3	5	0	4	1	5	3	1	:	:	:	2	1	6	7	3	2	6	:	3	4	2	3	4	3	0	7	3	1		
Courses are too difficult	1	2	0	1	0	:	1	0	:	:	:	:	1	:	1	1	0	1	:	3	2	2	4	2	2	1	1	1	5		
Higher educational level																															
Skills are sufficient	61	69	83	31	75	58	67	82	73	55	78	62	71	81	49	64	42	54	:	71	78	58	33	62	60	68	54	53	61		
Rarely use computers	11	11	5	4	13	16	15	4	9	12	12	9	11	11	18	12	8	19	:	25	11	19	22	8	13	18	12	13	12		
Lack of time	12	14	3	8	4	14	8	5	6	13	:	8	10	10	27	17	13	16	:	9	12	17	26	11	14	8	14	18	18		
Course costs	3	9	0	1	1	3	3	0	:	4	:	4	1	7	5	4	7	3	:	4	10	4	4	7	6	2	8	5	10		
No suitable offer available	3	2	1	3	1	7	5	2	:	:	:	3	1	:	5	3	2	3	:	1	3	2	3	2	2	1	5	3	2		
Courses are too difficult	1	0	0	0	0	:	1	1	:	:	:	:	0	:	1	0	0	1	:	1	1	1	:	0	1	0	0	:	2		
Densely populated areas																															
Skills are sufficient	48	:	72	35	67	55	62	66	53	43	70	52	56	62	40	53	35	44	:	63	70	49	20	42	40	60	39	43	35		
Rarely use computers	19	:	13	9	20	23	22	14	21	26	14	12	17	21	25	16	13	26	:	37	16	23	31	23	25	28	19	16	25		
Lack of time	12	:	3	9	2	11	11	8	8	12	:	8	10	14	27	17	18	15	:	13	12	18	22	8	18	6	14	21	22		
Course costs	6	:	0	3	0	3	3	0	:	:	:	7	3	14	6	2	12	4	:	4	20	10	7	6	8	2	9	10	30		
No suitable offer available	3	:	0	4	2	4	3	1	:	3	:	3	2	7	5	3	2	5	:	3	4	1	3	3	1	1	6	3	2		
Courses are too difficult	1	:	0	0	0	:	1	2	:	1	:	:	2	6	1	1	0	0	:	4	1	2	3	1	2	0	1	1	4		
Intermediate density																															
Skills are sufficient	47	48	72	28	61	46	70	68	57	41	67	47	57	60	32	49	33	35	:	45	59	:	17	:	:	41	28	42	:		
Rarely use computers	20	26	14	12	25	33	28	12	19	31	20	15	18	25	32	20	16	26	:	41	26	:	37	:	:	36	26	17	:		
Lack of time	14	16	2	10	4	8	9	7	7	13	:	11	12	14	31	19	20	29	:	9	14	:	26	:	:	5	22	19	:		
Course costs	6	3	1	3	0	1	4	0	:	6	:	7	1	15	8	4	9	6	:	3	11	:	9	:	:	0	11	9	:		
No suitable offer available	3	3	1	7	2	2	2	2	:	:	:	3	2	9	7	2	2	13	:	2	3	:	4	:	:	0	5	4	:		
Courses are too difficult	1	1	0	0	0	:	0	1	:	:	:	:	1	:	1	1	1	2	:	2	2	:	4	:	:	0	2	0	:		

Thinly populated areas																															
Skills are sufficient	41	36	67	30	57	44	57	65	56	38	60	41	50	61	30	45	31	37	:	43	54	30	18	41	30	39	28	26	15		
Rarely use computers	26	34	18	14	30	33	43	18	21	31	24	16	23	27	34	22	17	32	:	51	25	37	34	18	27	35	26	24	38		
Lack of time	14	21	4	8	3	14	7	6	:	13	:	12	15	12	31	18	21	18	:	11	19	25	26	12	25	13	16	20	22		
Course costs	6	6	1	1	0	2	2	0	:	:	:	7	1	12	6	6	10	6	:	7	13	11	8	7	:	2	10	11	:		
No suitable offer available	4	5	1	2	1	7	4	3	:	3	:	:	2	11	7	3	3	4	:	2	6	3	3	4	6	0	8	4	1		
Courses are too difficult	1	2	0	1	0	:	1	1	:	:	:	:	0	:	1	1	1	2	:	3	3	2	4	1	2	1	1	2	5		
Objective 1 regions																															
Skills are sufficient	36	44	67	:	:	:	:	:	:	:	:	39	47	60	32	:	33	40	:	48	58	40	19	41	36	:	33	38	30		
Rarely use computers	24	29	15	:	:	:	:	:	:	:	:	17	23	25	31	:	17	29	:	45	25	29	33	20	27	:	23	18	28		
Lack of time	18	18	4	:	:	:	:	:	:	:	:	12	13	15	32	:	23	17	:	11	15	22	24	12	21	:	16	21	22		
Course costs	10	8	1	:	:	:	:	:	:	:	:	9	3	9	8	:	10	5	:	5	13	6	8	7	6	:	9	10	13		
No suitable offer available	5	4	2	:	:	:	:	:	:	:	:	:	3	10	8	:	3	5	:	2	5	2	3	4	3	:	7	3	1		
Courses are too difficult	2	1	0	:	:	:	:	:	:	:	:	:	1	4	2	:	1	1	:	3	2	2	4	1	2	:	1	1	4		
Other regions																															
Skills are sufficient	51	:	70	:	61	47	60	66	54	:	:	50	57	64	38	49	34	:	:	:	69	:	15	46	:	53	:	:	:		
Rarely use computers	18	:	15	:	26	30	36	14	21	:	:	13	17	20	27	19	14	:	:	:	16	:	34	22	:	30	:	:	:		
Lack of time	11	:	3	:	3	12	9	7	8	:	:	10	11	13	27	18	18	:	:	:	14	:	27	5	:	7	:	:	:		
Course costs	4	:	3	:	0	2	2	0	:	:	:	7	2	8	6	3	10	:	:	:	10	:	8	7	:	1	:	:	:		
No suitable offer available	2	:	1	:	1	5	3	2	:	:	:	3	2	:	5	3	2	:	:	:	3	:	5	1	:	1	:	:	:		
Courses are too difficult	1	:	0	:	0	:	1	1	:	:	:	:	2	7	1	1	1	:	:	:	1	:	2	1	:	0	:	:	:		
Students																															
Skills are sufficient	62	72	92	72	75	81	77	77	:	:	88	70	74	75	56	61	44	40	:	88	76	93	32	57	62	46	53	42	42		
Rarely use computers	8	8	2	4	11	8	8	4	:	:	4	:	7	:	10	6	13	26	:	10	7	5	:	10	8	32	5	8	5		
Lack of time	11	6	1	6	2	3	6	4	:	:	:	:	5	7	24	13	20	14	:	6	13	1	:	4	18	8	8	12	20		
Course costs	7	10	0	1	0	3	4	0	:	:	:	:	2	7	6	4	6	7	:	9	32	89	13	5	38	9	26	16	21		
No suitable offer available	4	1	0	4	2	4	2	0	:	:	:	:	1	9	6	0	4	18	:	1	2	0	:	2	2	0	6	3	0		
Courses are too difficult	1	1	0	0	0	:	3	3	:	:	:	:	0	:	1	0	1	0	:	0	1	0	:	0	0	0	:	:	3		
(Self-)Employed																															
Skills are sufficient	48	43	75	31	:	47	61	71	61	43	71	53	60	61	37	54	34	43	:	50	64	42	20	43	38	57	35	39	32		
Rarely use computers	19	30	11	10	:	28	27	13	18	26	16	11	16	21	27	16	13	25	:	43	18	27	33	20	26	26	21	19	29		
Lack of time	16	21	4	10	:	15	11	7	9	15	:	13	14	18	32	20	20	19	:	11	17	23	27	14	22	8	19	24	24		
Course costs	5	11	2	2	:	2	1	0	:	2	:	5	1	:	6	2	3	5	:	1	4	2	7	2	3	1	3	9	4		
No suitable offer available	3	4	1	3	:	5	4	2	:	2	:	3	1	8	6	2	2	4	:	1	5	2	3	4	2	1	7	3	2		
Courses are too difficult	1	1	0	1	:	:	1	1	:	1	:	:	1	5	1	1	0	1	:	3	2	2	4	1	2	1	1	1	4		
Unemployed																															
Skills are sufficient	37	50	70	52	58	40	63	50	:	46	:	36	44	53	28	37	32	25	:	22	40	24	:	23	19	50	27	28	12		
Rarely use computers	23	34	16	23	31	42	25	25	:	28	:	16	25	31	35	23	20	46	:	47	36	40	26	30	22	48	27	24	28		
Lack of time	9	0	3	0	2	7	4	9	:	:	:	:	6	:	24	9	14	3	:	20	10	11	:	6	15	3	8	7	14		
Course costs	15	3	1	2	0	3	2	0	:	:	:	22	5	27	10	6	22	12	:	0	5	0	22	13	2	4	3	18	28		
No suitable offer available	4	0	0	8	2	4	5	1	:	:	:	:	3	:	7	5	3	11	:	7	7	2	:	8	10	0	6	5	:		
Courses are too difficult	2	0	1	0	0	:	1	1	:	:	:	:	4	:	3	0	1	0	:	8	3	2	:	2	5	0	1	:	4		
Retired or inactive																															
Skills are sufficient	33	18	51	14	35	33	52	55	36	28	45	34	40	51	21	34	24	30	:	29	54	22	10	20	19	31	21	23	13		
Rarely use computers	34	40	29	21	47	46	81	19	32	42	36	23	28	57	48	32	24	45	:	69	37	47	39	30	37	57	35	30	47		
Lack of time	7	12	2	7	2	6	3	7	6	6	:	5	5	:	18	13	12	12	:	3	10	13	18	7	11	6	10	9	10		
Course costs	5	6	1	1	0	2	0	0	:	:	:	8	3	:	6	2	9	3	:	2	5	2	8	2	3	0	3	5	9		
No suitable offer available	3	3	1	5	1	7	2	2	:	:	:	:	3	:	6	4	3	2	:	1	3	1	:	3	3	1	6	:	1		
Courses are too difficult	1	1	1	2	1	:	1	3	:	:	:	:	4	:	2	2	1	1	:	3	2	5	4	1	4	0	2	:	7		

Manual workers																														
Skills are sufficient	34	32	60	34	52	40	53	47	43	34	:	39	45	50	19	42	:	22	:	29	49	54	10	25	21	19	19	23	14
Rarely use computers	31	48	25	18	35	40	41	34	30	39	:	20	24	37	41	21	:	42	:	60	30	20	42	34	40	64	31	28	44
Lack of time	19	22	5	13	3	14	10	9	10	15	:	16	18	19	37	24	:	19	:	14	20	20	24	17	27	9	22	28	24
Course costs	7	6	0	1	0	2	3	0	:	6	:	6	3	15	9	3	:	5	:	4	12	6	9	7	5	2	11	12	30
No suitable offer available	3	4	0	2	1	5	3	3	:	:	:	:	2	9	7	3	:	5	:	2	5	2	3	4	2	0	7	3	1
Courses are too difficult	2	0	0	1	0	:	1	0	:	:	:	:	2	5	3	2	:	1	:	4	3	1	6	2	3	1	2	:	6
Non-manual workers																														
Skills are sufficient	55	48	79	30	77	51	65	78	68	47	:	58	66	67	48	58	:	50	:	61	71	20	25	52	49	65	46	45	43
Rarely use computers	13	21	8	7	13	20	20	6	13	19	:	8	13	13	18	14	:	19	:	34	13	42	28	13	19	18	14	15	20
Lack of time	14	20	3	9	3	17	11	7	8	15	:	11	13	17	28	19	:	19	:	10	15	29	28	12	19	7	17	23	24
Course costs	5	8	0	1	0	3	3	0	:	6	:	5	1	9	5	3	:	5	:	4	11	9	6	6	4	1	8	8	10
No suitable offer available	3	4	1	4	2	5	5	2	:	3	:	3	1	7	5	2	:	4	:	1	5	2	3	3	2	1	7	3	2
Courses are too difficult	1	1	0	0	0	:	1	1	:	:	:	:	0	5	1	1	:	1	:	2	1	3	2	1	1	0	1	1	3

Annex 11: Perceived sufficiency of computer skills, 2007 (E6)

Percentage share of all individuals (excepting retired/retired not interviewed). Note apparent issues with data in particular concerning NL, RO and GR.

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Perceived insufficient skills	25	36	2	27	22	22	24	32	22	37	26	25	33	40	30	29	15	17	22	30	23	46	14	35	40	27	31	41	12
Perceived sufficient skills	33	43	12	44	54	50	52	50	43	28	40	41	39	24	46	37	22	15	35	36	32	21	37	35	28	22	29	17	12
Computer skills perceived irrelevant	10	3	2	7	1	4	6	5	3	6	:	8	0	9	11	5	29	15	20	11	8	18	31	8	8	23	9	17	6
Aged 16-24																													
Perceived insufficient skills	24	28	2	18	15	7	11	23	9	40	20	20	33	33	30	27	25	38	24	17	25	37	21	21	34	32	27	48	24
Perceived sufficient skills	54	64	24	70	81	82	81	74	57	49	69	66	63	53	65	54	43	34	57	63	45	38	66	51	53	35	59	33	20
Computer skills perceived irrelevant	11	3	5	5	2	3	5	3	:	10	:	12	0	10	5	5	28	18	12	20	21	26	12	24	4	20	10	15	16
Aged 25-54																													
Perceived insufficient skills	32	39	3	32	26	26	28	37	27	47	35	33	40	52	38	33	19	18	27	40	29	60	17	47	51	33	44	53	12
Perceived sufficient skills	40	46	13	51	68	63	62	58	52	34	48	52	48	27	51	42	28	17	41	44	39	23	42	41	31	27	31	20	13
Computer skills perceived irrelevant	11	3	1	7	1	5	5	4	:	7	:	7	0	9	10	5	37	20	21	12	4	17	40	4	10	26	10	22	4
Aged 55-64																													
Perceived insufficient skills	18	44	0	29	32	38	40	35	27	15	23	20	28	33	19	31	6	6	15	20	13	38	5	23	38	19	15	25	3
Perceived sufficient skills	15	27	3	20	30	20	29	21	26	16	8	20	16	8	37	11	6	3	14	7	16	6	16	9	8	4	7	5	2
Computer skills perceived irrelevant	11	4	1	15	0	3	11	7	6	0	6	13	0	10	23	8	23	7	35	8	11	22	32	6	13	27	6	17	1
Aged 65-74																													
Perceived insufficient skills	2	11	0	3	2	2	1	13	0	1	0	0	1	5	2	6	1	2	4	3	3	3	0	0	3	1	0	1	0
Perceived sufficient skills	2	6	0	3	1	0	0	2	0	0	0	0	1	0	8	2	0	1	4	1	3	0	0	1	1	0	0	1	0
Computer skills perceived irrelevant	3	4	0	0	0	0	1	10	0	0	0	0	0	3	12	3	4	3	11	1	10	2	4	1	2	3	0	1	0
Women																													
Perceived insufficient skills	25	36	2	28	23	23	27	41	21	39	25	27	32	37	31	23	14	16	21	26	22	45	15	32	36	24	29	39	11
Perceived sufficient skills	30	40	11	40	51	49	49	41	38	25	34	37	35	22	45	34	19	14	34	36	32	19	34	33	27	23	27	17	11
Computer skills perceived irrelevant	9	2	1	8	1	3	5	6	3	6	:	8	0	7	13	3	22	14	17	11	8	15	28	7	7	17	7	15	5
Men																													
Perceived insufficient skills	25	35	2	25	22	21	22	22	23	34	27	22	33	45	29	36	16	17	23	33	23	46	13	39	44	30	34	44	12
Perceived sufficient skills	36	46	12	48	57	51	54	59	48	31	47	46	44	26	47	39	26	16	37	37	32	22	40	37	30	22	32	17	12
Computer skills perceived irrelevant	11	4	2	7	1	4	6	3	4	6	:	8	0	10	9	7	35	17	23	11	8	20	34	9	9	29	10	19	6
Lower educational level																													
Perceived insufficient skills	24	42	2	27	26	21	28	39	22	37	26	25	38	46	29	36	10	9	18	34	21	28	14	28	33	21	24	34	7
Perceived sufficient skills	18	31	9	34	40	34	37	36	12	15	26	32	19	12	33	12	8	3	26	13	10	9	29	15	15	6	19	5	3
Computer skills perceived irrelevant	14	2	3	7	1	3	9	6	7	7	:	10	0	9	17	8	34	5	21	14	7	25	32	20	9	29	13	22	6
Middle educational level																													
Perceived insufficient skills	28	40	2	30	22	28	29	32	26	41	27	27	36	28	37	31	21	25	24	33	28	57	15	40	47	35	37	48	14
Perceived sufficient skills	36	40	12	38	57	50	48	55	43	41	41	42	44	57	52	40	35	19	30	36	41	13	34	37	23	18	25	15	10
Computer skills perceived irrelevant	9	4	1	10	1	4	6	3	2	5	:	7	0	7	6	4	24	18	24	12	9	19	34	5	9	24	8	18	5

Higher educational level																													
Perceived insufficient skills	20	22	1	21	16	14	15	18	15	32	20	19	21	20	26	18	20	19	20	11	16	38	8	20	25	25	17	33	17
Perceived sufficient skills	57	69	15	62	72	65	68	70	66	52	56	54	63	62	65	63	49	33	52	73	67	49	72	66	60	48	62	47	52
Computer skills perceived irrelevant	6	3	1	4	0	3	4	4	:	6	:	7	0	:	4	3	18	32	11	4	9	6	7	2	3	15	4	5	9
Densely populated areas																													
Perceived insufficient skills	24	:	2	24	20	15	19	32	22	36	20	23	32	37	28	22	15	19	23	21	21	42	12	34	38	27	25	38	15
Perceived sufficient skills	36	:	14	52	60	61	61	50	43	29	48	43	40	29	50	48	25	20	35	44	44	30	45	39	33	28	36	27	18
Computer skills perceived irrelevant	9	:	1	7	1	3	5	5	3	6	:	7	0	10	10	4	27	18	23	10	9	15	25	8	8	20	8	15	8
Intermediate density																													
Perceived insufficient skills	25	33	2	25	24	19	23	:	22	39	26	26	32	44	32	30	15	17	26	27	27	30	16	:	:	25	32	38	:
Perceived sufficient skills	34	48	11	51	53	55	55	:	43	28	40	41	39	21	43	35	22	11	43	42	28	50	34	:	:	20	26	16	:
Computer skills perceived irrelevant	12	3	1	5	0	4	5	:	:	9	:	7	0	9	12	6	30	14	:	12	9	5	31	:	:	30	9	20	:
Thinly populated areas																													
Perceived insufficient skills	27	40	2	28	23	27	27	35	21	38	30	29	40	41	32	37	15	15	21	35	22	48	15	35	41	28	37	44	7
Perceived sufficient skills	27	34	8	38	51	42	47	48	40	26	35	37	30	21	40	27	18	12	35	30	24	13	32	33	23	12	24	9	2
Computer skills perceived irrelevant	10	4	2	8	1	4	6	5	:	6	:	9	0	5	14	6	31	13	18	11	7	19	35	8	8	27	9	18	2
Objective 1 regions																													
Perceived insufficient skills	26	36	4	:	:	:	:	:	27	:	:	27	42	43	31	:	13	17	22	30	24	46	14	36	40	:	31	41	12
Perceived sufficient skills	26	43	6	:	:	:	:	:	35	:	:	36	29	22	43	:	18	15	35	36	28	21	35	34	28	:	29	17	12
Computer skills perceived irrelevant	14	3	0	:	:	:	:	:	:	:	:	8	0	8	14	:	32	15	20	11	8	18	32	8	8	:	9	17	6
Other regions																													
Perceived insufficient skills	22	:	2	:	22	22	24	32	22	:	:	24	31	33	30	29	16	:	:	:	21	:	11	29	:	27	:	:	:
Perceived sufficient skills	39	:	12	:	54	50	52	50	43	:	:	42	41	31	48	37	24	:	:	:	42	:	54	40	:	22	:	:	:
Computer skills perceived irrelevant	9	:	2	:	1	4	6	5	4	:	:	8	0	10	10	5	27	:	:	:	9	:	18	10	:	23	:	:	:
Students																													
Perceived insufficient skills	23	26	2	22	14	6	11	21	:	36	9	18	34	23	27	18	28	38	26	9	21	28	20	16	37	29	24	45	28
Perceived sufficient skills	54	71	28	74	85	82	79	76	:	50	86	66	66	62	69	69	51	40	59	69	48	32	74	49	58	46	63	45	28
Computer skills perceived irrelevant	13	3	6	4	2	2	7	3	:	13	:	16	0	15	4	8	20	18	15	22	28	40	6	35	6	26	14	10	27
(Self-)Employed																													
Perceived insufficient skills	33	43	2	35	:	31	31	34	32	47	40	30	44	59	36	42	23	19	28	40	31	58	16	49	54	39	49	54	14
Perceived sufficient skills	44	44	14	55	:	59	59	62	63	34	55	56	56	30	55	48	32	18	45	48	45	27	45	45	36	28	39	24	15
Computer skills perceived irrelevant	13	3	2	10	:	5	6	4	5	6	:	9	0	12	9	7	46	23	27	13	3	15	37	5	10	33	12	22	5
Unemployed																													
Perceived insufficient skills	39	33	15	33	37	40	24	58	39	42	:	38	67	62	38	59	15	28	37	58	25	72	20	68	69	37	60	60	14
Perceived sufficient skills	34	34	64	54	62	49	68	26	52	37	:	39	33	28	51	34	30	27	28	27	17	9	20	27	10	41	23	7	7
Computer skills perceived irrelevant	17	8	11	14	1	2	3	11	:	8	:	7	0	9	11	6	54	4	35	15	2	18	59	5	21	22	17	33	3
Retired or inactive																													
Perceived insufficient skills	6	0	0	0	0	5	9	4	:	13	:	12	0	0	17	0	:	7	:	8	10	17	6	0	0	0	0	0	1
Perceived sufficient skills	4	0	0	0	0	11	10	4	:	5	:	8	0	0	21	0	:	3	:	1	8	2	6	0	0	0	0	0	1
Computer skills perceived irrelevant	4	0	0	0	0	0	4	4	:	3	:	4	0	0	17	0	:	5	:	2	10	15	21	0	0	0	0	0	1
Manual workers																													
Perceived insufficient skills	42	53	3	46	47	43	44	60	46	53	:	40	66	73	44	58	:	15	30	65	36	50	17	71	67	48	66	61	9
Perceived sufficient skills	25	26	9	39	51	45	40	31	43	18	:	35	34	13	41	29	:	6	22	15	19	43	20	20	16	4	17	6	2
Computer skills perceived irrelevant	17	5	4	15	1	5	10	9	10	8	:	11	0	15	15	10	:	10	47	20	4	6	61	9	17	47	17	32	2
Non-manual workers																													
Perceived insufficient skills	29	40	2	32	22	25	26	26	26	44	:	27	36	46	30	35	:	21	27	27	27	67	16	36	44	33	34	48	21
Perceived sufficient skills	55	51	15	59	77	66	66	72	70	43	:	63	64	45	65	57	:	24	61	64	60	9	62	60	51	43	60	38	32
Computer skills perceived irrelevant	9	3	1	8	1	5	5	2	3	6	:	8	0	9	5	6	:	30	12	9	3	24	20	4	5	24	6	13	8

Annex 12: Would you like to use the internet more? 2007 (C8)

Percentage share of all individuals/ Percentage share of individuals who have used the internet within the last 3 months

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Used the internet within last 3 months	57	90	84	85	81	79	80	78	72	64	67	72	67	40	52	57	38	33	64	53	52	49	49	56	55	38	44	31	24
% who would like to use more	33	23	12	31	26	23	18	27	27	32	20	40	21	42	34	34	36	34	16	21	40	47	29	41	33	41	42	45	69
Aged 16-24																													
Used the internet within last 3 months	85	100	99	95	98	100	93	96	90	92	87	95	91	85	86	74	66	70	93	89	84	90	82	87	94	65	85	62	54
% who would like to use more	36	11	14	21	17	17	11	29	22	28	23	40	26	49	30	38	39	36	22	22	52	54	48	51	47	43	50	55	79
Aged 25-54																													
Used the internet within last 3 months	65	94	93	93	91	91	87	85	79	72	76	84	76	42	60	64	46	39	74	62	59	53	55	64	62	42	46	35	25
% who would like to use more	33	23	13	32	25	22	18	28	28	32	19	40	21	41	35	32	35	33	13	21	39	45	24	37	27	40	38	42	63
Aged 55-64																													
Used the internet within last 3 months	38	83	69	70	72	62	72	65	59	42	46	56	47	17	21	29	20	9	32	20	29	16	25	19	25	15	17	10	6
% who would like to use more	31	34	11	34	35	32	22	27	29	36	18	39	19	26	28	41	37	31	15	17	28	40	14	38	25	38	37	33	51
Aged 65-74																													
Used the internet within last 3 months	16	50	43	49	39	28	41	29	33	15	22	26	19	4	6	15	5	2	14	7	8	4	7	4	6	4	:	2	0
% who would like to use more	33	42	10	44	29	34	26	9	30	40	19	41	22	50	25	47	43	12	:	6	23	36	20	23	9	12	:	:	36
Women																													
Used the internet within last 3 months	54	89	81	83	79	78	77	71	68	61	61	68	63	36	48	55	33	28	63	52	51	48	46	54	54	36	43	30	23
% who would like to use more	34	24	11	36	29	26	21	32	28	34	19	42	23	41	35	35	37	35	15	21	41	48	29	41	31	42	41	46	69
Men																													
Used the internet within last 3 months	61	91	87	88	84	80	83	85	76	66	73	76	70	44	56	59	44	39	64	55	53	50	51	58	57	40	46	31	26
% who would like to use more	32	22	14	27	22	21	15	23	26	29	21	39	20	43	32	34	36	33	17	20	40	47	30	40	35	39	42	44	68
Lower educational level																													
Used the internet within last 3 months	36	82	68	77	70	62	67	64	33	48	43	62	44	24	26	28	17	9	52	25	26	36	40	37	40	13	34	13	13
% who would like to use more	39	28	13	38	28	23	16	34	34	38	24	42	28	53	42	45	42	34	25	24	57	59	51	54	53	45	54	57	81
Middle educational level																													
Used the internet within last 3 months	63	92	91	84	84	81	81	89	77	83	70	72	74	81	72	63	57	41	60	56	66	39	45	58	51	35	39	29	23
% who would like to use more	34	24	13	33	25	24	20	25	28	27	20	41	21	38	35	35	36	37	18	23	39	50	27	39	30	42	40	46	70
Higher educational level																													
Used the internet within last 3 months	86	99	96	94	94	94	89	96	91	91	88	86	89	90	85	86	76	68	79	90	86	83	85	87	85	73	82	69	71
% who would like to use more	28	15	11	25	23	22	16	21	24	26	16	37	18	29	28	29	31	30	9	14	31	40	19	34	27	39	37	40	58
Densely populated areas																													
Used the internet within last 3 months	62	:	85	89	85	88	82	77	71	65	75	74	68	47	59	69	43	42	66	60	65	65	57	62	63	45	54	45	36
% who would like to use more	32	:	12	24	22	22	18	28	28	31	19	38	23	39	30	32	33	31	12	19	30	40	25	36	31	41	38	44	67
Intermediate density																													
Used the internet within last 3 months	59	91	86	90	81	83	79	78	73	65	67	73	67	36	50	55	36	27	77	58	50	:	46	:	:	34	38	29	:
% who would like to use more	33	21	13	34	27	21	20	26	24	31	19	40	19	47	36	30	38	50	34	18	44	:	30	:	:	42	43	37	:

Thinly populated areas																													
Used the internet within last 3 months	49	88	82	82	79	73	80	82	73	60	60	67	55	31	41	48	32	27	61	47	42	37	44	54	48	25	36	18	8
% who would like to use more	35	27	12	34	28	25	17	28	24	33	22	48	23	44	43	41	42	36	18	24	50	57	33	43	35	38	46	50	82
Objective 1 regions																													
Used the internet within last 3 months	41	90	86	:	:	:	:	:	67	:	:	63	56	36	46	:	29	33	64	53	47	49	46	55	55	:	44	31	24
% who would like to use more	43	23	15	:	:	:	:	:	38	:	:	51	25	45	38	:	41	34	16	21	46	47	31	41	33	:	42	45	69
Other regions																													
Used the internet within last 3 months	67	:	84	:	81	79	80	78	72	:	:	74	68	49	56	57	43	:	:	:	62	:	66	65	:	38	:	:	:
% who would like to use more	30	:	12	:	26	23	18	27	27	:	:	39	21	38	32	34	34	:	:	:	29	:	23	:	:	41	:	:	:
Students																													
Used the internet within last 3 months	92	100	100	95	97	100	93	98	93	96	97	98	95	97	96	94	79	82	98	98	93	99	93	92	97	82	93	87	78
% who would like to use more	37	11	14	28	17	16	12	25	:	27	20	39	28	45	25	31	38	36	23	18	49	53	52	51	52	42	50	57	81
(Self-)Employed																													
Used the internet within last 3 months	69	93	94	93	:	90	86	87	82	73	80	86	80	46	64	65	51	43	73	67	67	58	56	66	65	44	53	40	27
% who would like to use more	32	24	13	30	:	22	17	26	25	31	19	40	19	42	34	33	35	32	13	21	39	46	24	38	28	40	39	42	62
Unemployed																													
Used the internet within last 3 months	49	67	89	91	79	70	82	62	65	67	:	63	58	35	49	47	38	40	59	35	29	27	27	32	30	43	29	12	19
% who would like to use more	41	0	8	31	33	35	24	41	:	39	:	50	31	43	42	36	41	38	42	28	42	60	37	46	30	30	40	49	85
Retired or inactive																													
Used the internet within last 3 months	25	57	60	58	47	44	53	44	43	31	34	40	33	8	16	28	10	6	23	9	18	10	15	13	20	11	12	4	3
% who would like to use more	34	41	10	43	33	34	26	20	37	35	23	39	23	38	36	44	41	40	15	19	35	39	22	37	27	45	36	29	61
Manual workers																													
Used the internet within last 3 months	47	86	85	89	83	80	79	62	66	56	:	73	64	23	43	47	:	17	51	42	41	81	33	39	43	11	27	16	9
% who would like to use more	39	37	12	36	32	26	19	45	33	38	:	45	23	59	50	43	:	44	20	32	53	41	25	43	31	58	43	41	71
Non-manual workers																													
Used the internet within last 3 months	81	96	96	94	96	95	89	95	88	83	:	91	87	68	80	74	:	58	89	80	82	32	73	82	81	64	77	60	53
% who would like to use more	30	20	13	28	22	21	17	22	23	28	:	38	18	37	28	30	:	30	10	18	34	59	24	37	27	38	38	42	60

Annex 13: What are your barriers to more intensive use of the internet? 2007 (C9)

Percentage share of individuals who have used the Internet within the last 3 months and would like to use the Internet more, but don't (based on C8)

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Inadequate foreign language skills	16	7	1	18	9	30	19	6	:	31	3	20	11	17	13	2	16	3	:	13	13	30	5	19	20	8	10	23	30
Lack of time	58	43	40	62	52	67	58	68	51	61	56	49	55	64	76	37	65	62	:	71	82	73	65	59	62	75	55	61	71
Connection is too slow	18	9	7	27	10	17	20	16	13	19	14	26	7	15	15	27	24	16	:	28	11	14	4	12	12	17	13	12	9
Additional connection or per-volume download cost	16	2	3	11	5	10	7	8	5	5	12	26	10	26	17	3	28	22	:	18	33	10	24	22	2	13	11	26	8
Cost of online content	12	2	0	9	6	11	9	7	9	36	6	0	8	21	11	18	4	17	0	11	9	12	4	30	8	11	9	4	11
Content	5	3	3	19	10	6	6	5	:	20	3	4	3	3	6	1	2	2	:	3	2	3	:	2	1	2	2	1	1
Lack of skills or knowledge	14	26	11	46	35	31	32	17	21	11	13	15	16	17	21	11	12	8	:	18	6	20	5	2	15	12	8	7	10
Security or privacy concerns	18	4	9	24	10	29	28	16	10	26	8	33	9	17	12	2	12	12	:	30	5	8	3	3	2	19	5	5	3
None of the above	13	22	0	7	0	9	24	15	19	8	15	11	19	13	19	16	8	12	:	6	1	14	15	9	18	9	23	10	11
Aged 16-24																													
Inadequate foreign language skills	12	0	0	3	4	10	9	1	:	30	:	13	8	13	12	2	10	1	:	12	10	20	3	12	21	11	6	21	25
Lack of time	50	40	11	60	40	60	51	52	42	52	:	41	53	46	66	32	56	47	:	68	78	65	55	49	57	69	45	45	65
Connection is too slow	18	21	2	40	14	14	16	16	:	20	:	28	8	13	19	22	29	14	:	32	13	18	5	14	16	20	15	13	11
Additional connection or per-volume download cost	19	0	1	18	5	5	2	8	:	:	:	26	10	32	17	5	34	27	:	16	38	15	36	27	3	17	14	37	11
Cost of online content	14	6	1	6	9	9	7	7	:	19	:	:	6	27	12	27	5	24	:	13	12	18	8	37	10	14	11	6	16
Content	5	0	2	22	6	4	3	5	:	24	:	:	2	:	8	0	2	2	:	4	3	4	:	1	2	2	2	:	1
Lack of skills or knowledge	8	15	0	19	19	7	10	11	:	12	:	10	7	7	12	3	7	4	:	17	6	12	3	1	14	8	4	8	9
Security or privacy concerns	13	3	5	9	2	13	9	18	:	35	:	24	4	16	8	1	10	15	:	26	5	7	3	2	1	20	4	5	3
None of the above	19	27	0	10	0	22	38	26	35	:	:	16	25	23	29	20	14	18	:	6	2	19	17	12	20	14	30	12	14
Aged 25-54																													
Inadequate foreign language skills	16	7	1	16	9	25	16	8	:	31	:	19	11	:	13	2	16	4	:	12	14	36	6	22	20	7	12	24	33
Lack of time	64	44	47	69	56	75	69	72	56	68	:	56	59	74	80	41	70	68	:	74	84	79	73	65	66	78	65	71	77
Connection is too slow	18	9	8	25	8	16	18	15	:	20	:	26	7	:	15	29	23	17	:	28	9	12	3	11	9	16	12	11	8
Additional connection or per-volume download cost	15	3	3	11	4	10	8	7	:	:	:	25	10	:	17	3	26	21	:	20	30	6	16	19	2	11	9	19	5
Cost of online content	11	2	0	10	6	11	10	8	:	38	:	:	9	:	11	14	3	15	:	10	7	9	2	27	7	9	7	:	7
Content	5	4	3	17	10	5	7	6	:	17	:	:	3	:	6	1	2	2	:	2	2	3	:	2	1	2	2	:	:
Lack of skills or knowledge	14	22	8	43	31	26	32	16	:	:	:	:	15	:	22	11	11	9	:	17	6	23	6	3	14	12	9	6	11
Security or privacy concerns	18	6	8	26	10	28	29	16	:	24	:	34	11	:	13	3	12	11	:	28	5	9	3	3	3	19	6	5	3
None of the above	11	24	0	8	0	8	26	14	:	:	:	:	17	:	17	16	7	9	:	7	3	11	13	7	17	7	16	8	8

Aged 55-64																													
Inadequate foreign language skills	22	13	5	30	11	49	32	4	:	35	:	29	12	:	19	1	28	6	:	33	13	47	:	29	19	9	14	28	44
Lack of time	49	45	59	51	54	60	46	63	50	52	:	39	39	77	76	33	51	73	:	56	83	61	76	66	65	69	45	60	69
Connection is too slow	16	3	8	26	13	20	23	21	:	:	:	21	5	:	10	27	24	10	:	19	12	12	:	24	8	23	11	13	4
Additional connection or per-volume download cost	16	0	0	4	7	11	4	9	:	:	:	28	10	:	10	0	22	8	:	8	34	6	:	12	0	17	12	27	4
Cost of online content	14	0	0	10	6	12	6	3	:	50	:	:	9	:	11	14	4	11	:	18	11	6	0	14	3	14	12	:	5
Content	7	2	2	24	13	9	8	3	:	29	:	:	2	:	3	3	3	0	:	7	0	3	0	0	2	6	:	0	:
Lack of skills or knowledge	23	39	31	64	45	47	39	30	32	:	:	19	31	:	36	27	27	15	:	55	9	40	:	6	28	43	16	:	16
Security or privacy concerns	25	1	19	24	13	39	36	15	:	26	:	40	12	:	15	4	20	14	:	75	3	7	:	2	0	26	7	:	:
None of the above	10	16	0	2	0	6	16	8	:	:	:	:	15	:	12	5	4	20	:	0	4	16	:	8	6	3	23	:	14
Aged 65-74																													
Inadequate foreign language skills	22	6	0	31	9	59	22	0	:	:	:	:	18	:	12	3	29	0	:	0	8	60	0	0	0	0	:	:	:
Lack of time	28	38	18	30	23	28	18	100	:	:	:	:	34	:	37	10	31	35	:	100	65	:	:	14	40	50	:	:	:
Connection is too slow	22	6	18	19	9	24	31	19	:	:	:	:	7	:	28	29	24	0	:	0	25	:	:	18	0	50	:	:	:
Additional connection or per-volume download cost	17	0	11	7	8	17	10	19	:	:	:	:	8	:	10	1	32	0	:	0	30	:	:	20	0	0	:	:	:
Cost of online content	12	4	0	7	7	12	6	19	:	:	:	:	5	:	4	9	6	0	:	0	10	:	0	37	0	0	:	:	:
Content	5	0	8	14	4	5	2	0	:	:	:	:	5	:	14	0	:	0	:	0	11	:	0	0	0	0	:	:	:
Lack of skills or knowledge	30	35	53	78	54	72	45	19	:	:	:	:	34	:	44	38	38	65	:	0	10	:	:	17	73	0	:	:	:
Security or privacy concerns	24	0	20	32	6	40	23	19	:	:	:	38	15	:	9	3	15	0	:	100	0	:	0	0	0	0	:	:	:
None of the above	11	18	0	7	0	2	19	0	:	:	:	:	18	:	33	17	8	0	:	0	5	:	:	31	9	0	:	:	:
Women																													
Inadequate foreign language skills	15	6	0	16	10	28	19	5	:	34	:	17	11	16	12	2	12	3	:	14	11	30	5	16	21	7	9	23	30
Lack of time	60	44	46	63	52	69	59	68	55	63	:	51	55	61	75	38	67	59	:	70	83	72	65	59	62	80	56	62	72
Connection is too slow	16	6	10	27	8	17	15	15	12	15	:	25	7	13	11	29	22	13	:	30	10	13	3	12	10	16	11	9	8
Additional connection or per-volume download cost	16	1	5	10	5	12	5	6	:	4	:	27	9	26	15	4	26	22	:	17	33	9	25	20	2	11	11	26	8
Cost of online content	13	2	0	8	6	10	6	6	0	41	:	0	7	22	9	17	4	18	0	13	8	13	4	32	8	9	8	4	10
Content	5	2	4	16	10	5	6	3	:	19	:	:	2	:	5	0	1	1	:	0	2	3	:	1	2	2	1	:	1
Lack of skills or knowledge	16	33	20	49	40	30	36	18	25	10	:	15	17	18	22	12	13	10	:	26	6	21	6	3	17	13	9	8	10
Security or privacy concerns	18	5	10	25	9	34	29	18	9	26	:	32	11	17	12	3	11	16	:	35	5	9	4	3	3	18	5	4	3
None of the above	12	21	0	7	0	9	27	13	16	6	:	11	19	12	20	14	8	16	:	6	6	15	15	10	16	8	23	9	11
Men																													
Inadequate foreign language skills	17	9	1	20	8	34	20	8	:	28	:	23	10	18	14	3	19	3	:	11	14	31	4	21	20	10	10	24	30
Lack of time	57	42	35	61	50	64	56	67	48	59	:	47	55	66	77	36	62	64	:	72	81	74	65	60	61	69	54	60	71
Connection is too slow	20	11	5	26	13	18	27	17	14	23	:	26	7	16	19	25	26	18	:	27	11	16	4	13	14	19	15	14	11
Additional connection or per-volume download cost	17	3	1	11	4	8	9	9	:	6	:	25	11	25	18	2	29	22	:	20	32	11	24	23	3	15	11	26	8
Cost of online content	12	2	1	10	7	12	11	9	10	30	:	0	9	20	13	18	4	17	0	9	9	12	4	28	9	12	10	5	12
Content	6	3	2	22	9	7	7	7	:	21	:	5	3	:	7	1	2	2	:	5	2	4	:	2	1	3	3	:	1
Lack of skills or knowledge	13	19	4	42	29	32	27	16	16	11	:	15	14	16	20	10	11	6	:	10	7	18	5	2	12	12	6	5	10
Security or privacy concerns	18	4	9	24	11	23	27	15	11	26	:	35	8	17	12	2	13	9	:	25	5	7	2	3	1	21	5	5	3
None of the above	13	23	0	8	0	9	21	18	22	11	:	10	19	14	19	18	8	9	:	6	7	14	14	9	19	9	23	10	10

Lower educational level																											
Inadequate foreign language skills	22	10	0	22	14	38	33	10	:	40	:	20	14	23	17	3	21	2	:	28	16	24	:	19	24	15	8	22	30
Lack of time	53	39	31	65	47	57	45	66	:	60	:	42	49	56	70	29	61	67	:	78	75	58	43	49	49	61	36	38	62
Connection is too slow	17	9	5	27	12	18	15	9	:	16	:	24	8	13	14	21	23	17	:	27	12	15	5	15	15	12	14	11	12
Additional connection or per-volume download cost	17	0	2	7	6	11	6	6	:	5	:	28	11	27	15	6	28	21	:	31	40	15	38	29	4	12	15	35	11
Cost of online content	18	4	1	10	8	14	5	8	0	41	:	0	9	24	10	27	3	12	0	0	11	19	8	36	10	8	11	7	18
Content	8	4	4	20	7	6	5	6	:	22	:	:	3	:	7	1	2	4	:	0	2	3	0	0	0	5	1	:	1
Lack of skills or knowledge	15	30	18	49	40	39	38	19	:	10	:	12	19	21	25	13	15	9	:	17	10	18	4	0	17	9	6	9	12
Security or privacy concerns	17	3	15	24	12	24	33	18	:	24	:	29	8	16	11	2	10	16	:	28	3	8	:	4	1	14	3	6	1
None of the above	14	19	0	5	0	13	25	17	:	7	:	14	20	17	22	15	11	14	:	0	8	23	23	11	23	20	34	17	13
Middle educational level																											
Inadequate foreign language skills	15	7	1	18	7	34	19	4	:	25	:	20	11	10	13	2	15	5	:	13	13	34	6	18	20	12	11	26	35
Lack of time	58	46	42	61	57	68	60	68	52	57	:	51	56	70	79	39	66	60	:	70	84	75	70	61	62	74	58	62	71
Connection is too slow	18	6	7	26	9	15	20	22	13	22	:	26	5	12	17	27	24	18	:	27	11	13	3	12	12	17	12	13	9
Additional connection or per-volume download cost	18	3	2	15	4	10	7	10	:	:	:	26	11	24	19	1	28	22	:	20	31	8	22	22	2	12	11	26	8
Cost of online content	10	2	0	8	6	9	11	9	12	28	:	0	8	18	11	14	4	20	0	15	9	11	3	30	9	12	9	3	11
Content	4	1	2	18	13	5	5	7	:	21	:	4	2	:	7	1	2	1	:	3	2	3	:	2	2	0	2	:	1
Lack of skills or knowledge	15	26	7	48	32	31	31	17	22	13	:	15	13	10	22	12	11	7	:	19	6	23	6	3	15	15	9	8	12
Security or privacy concerns	18	4	5	23	8	28	22	13	9	28	:	34	9	16	11	3	13	12	:	30	5	6	4	2	2	20	5	4	3
None of the above	12	23	0	8	0	10	27	18	18	:	:	10	20	12	19	15	7	10	:	8	9	12	12	9	17	9	21	9	10
Higher educational level																											
Inadequate foreign language skills	12	3	2	12	6	20	13	0	:	19	:	18	6	:	11	2	13	1	:	2	8	29	:	18	16	4	9	20	17
Lack of time	64	48	47	62	48	71	61	71	59	67	:	54	61	78	79	39	67	63	:	70	87	78	86	69	73	79	65	70	82
Connection is too slow	19	14	10	29	9	20	24	23	15	22	:	27	8	22	15	31	27	13	:	33	9	16	:	13	10	19	16	10	8
Additional connection or per-volume download cost	13	5	5	8	4	9	7	9	:	:	:	23	7	24	16	4	27	23	:	2	27	8	:	12	2	14	9	22	5
Cost of online content	11	2	1	11	4	11	7	5	0	31	:	0	8	14	11	16	4	16	0	7	7	11	0	20	5	10	7	4	6
Content	5	5	2	19	9	6	9	1	:	15	:	:	4	:	4	0	2	1	:	5	3	3	:	1	2	3	3	:	1
Lack of skills or knowledge	13	17	8	39	31	25	30	13	16	9	:	17	16	11	16	9	12	8	:	16	3	17	:	1	11	11	6	4	5
Security or privacy concerns	19	8	9	26	10	33	33	17	:	28	:	37	11	21	13	2	13	11	:	34	8	10	:	4	4	20	6	6	4
None of the above	12	25	0	10	0	6	20	9	20	9	:	8	17	:	16	18	6	15	:	5	10	12	10	9	13	6	16	7	9
Densely populated areas																											
Inadequate foreign language skills	16	:	1	9	8	19	17	5	:	30	:	20	9	17	14	4	15	3	:	11	19	27	4	15	15	6	11	21	30
Lack of time	58	:	40	55	47	64	55	72	50	62	:	46	53	65	78	35	66	62	:	69	80	73	69	60	67	74	59	64	73
Connection is too slow	15	:	6	24	8	13	15	15	12	18	:	20	7	13	13	15	18	16	:	24	10	12	4	7	6	18	14	10	9
Additional connection or per-volume download cost	14	:	5	11	6	8	6	7	:	5	:	24	11	24	15	2	26	24	:	14	31	8	22	19	1	14	8	24	8
Cost of online content	12	:	0	10	6	10	9	7	10	34	:	0	9	19	11	18	3	17	0	9	11	8	0	29	4	11	9	5	10
Content	5	:	3	19	10	6	5	4	:	17	:	5	3	:	6	1	2	2	:	0	2	3	:	2	1	3	3	1	1
Lack of skills or knowledge	15	:	11	36	36	27	33	17	20	11	:	16	17	17	21	16	13	6	:	24	9	17	4	1	13	13	7	7	10
Security or privacy concerns	18	:	8	19	10	34	29	12	10	24	:	34	10	17	13	2	13	10	:	44	6	7	3	1	1	21	7	5	3
None of the above	13	:	0	8	0	10	20	11	20	8	:	13	19	11	17	21	8	15	:	7	11	14	11	13	18	8	20	9	10

Intermediate density																											
Inadequate foreign language skills	15	7	2	16	11	35	20	4	:	28	:	19	13	14	10	2	18	0	:	15	9	:	5	:	:	11	12	21	:
Lack of time	58	48	36	73	52	65	71	59	55	54	:	53	58	60	75	43	65	56	:	78	83	:	66	:	:	79	60	57	:
Connection is too slow	20	6	9	24	12	14	15	17	:	17	:	27	6	:	17	20	27	13	:	22	9	:	4	:	:	11	10	10	:
Additional connection or per-volume download cost	20	2	1	4	5	6	7	10	:	:	:	27	8	26	16	6	28	17	:	17	30	:	28	:	:	6	11	42	:
Cost of online content	8	3	0	7	8	5	10	6	0	33	:	0	7	22	11	17	4	26	0	5	6	:	7	:	:	6	8	0	:
Content	4	3	2	25	9	5	11	7	:	22	:	:	2	:	7	0	2	3	:	6	4	:	:	:	:	0	1	0	:
Lack of skills or knowledge	15	26	8	45	36	30	31	12	:	19	:	13	14	13	19	8	11	0	:	24	5	:	6	:	:	11	9	:	:
Security or privacy concerns	20	4	10	26	10	27	30	19	:	25	:	33	8	:	10	3	12	16	:	29	4	:	:	:	:	18	4	:	:
None of the above	12	23	0	10	0	7	21	21	:	:	:	9	18	18	21	19	8	16	:	5	12	:	10	:	:	12	19	:	:
Thinly populated areas																											
Inadequate foreign language skills	18	9	0	22	9	35	20	12	:	34	:	21	13	22	15	0	14	4	:	12	11	33	5	20	25	14	8	28	31
Lack of time	59	36	42	60	54	69	55	76	55	62	:	52	53	66	73	34	60	62	:	68	82	72	61	59	56	74	49	55	63
Connection is too slow	22	12	8	29	11	21	24	15	:	21	:	37	8	20	19	45	35	16	:	35	13	16	3	15	18	17	13	15	11
Additional connection or per-volume download cost	17	2	2	13	4	12	7	5	:	:	:	31	13	29	20	3	31	20	:	20	36	11	23	23	4	13	15	27	8
Cost of online content	15	2	0	10	6	13	8	9	0	40	:	0	5	23	11	17	5	17	0	16	9	17	5	31	12	12	9	3	16
Content	6	3	3	16	10	6	6	4	:	24	:	:	2	:	6	1	2	1	:	2	1	4	:	1	2	0	1	:	1
Lack of skills or knowledge	13	26	12	50	33	33	32	26	:	8	:	13	13	22	21	7	11	10	:	12	6	23	6	3	16	9	7	7	14
Security or privacy concerns	16	4	11	25	9	27	26	21	:	29	:	32	9	21	11	3	10	14	:	25	5	9	3	4	3	15	3	5	2
None of the above	12	21	0	6	0	9	27	12	:	9	:	:	23	:	21	8	9	9	:	7	13	15	20	8	17	9	26	11	12
Objective 1 regions																											
Inadequate foreign language skills	16	7	0	:	:	:	:	:	:	:	:	25	20	16	15	:	16	3	:	13	11	30	4	18	20	:	10	23	30
Lack of time	61	43	34	:	:	:	:	:	:	:	:	47	52	64	74	:	63	62	:	71	83	73	63	59	62	:	55	61	71
Connection is too slow	16	9	0	:	:	:	:	:	:	:	:	33	7	16	16	:	22	16	:	28	10	14	4	14	12	:	13	12	9
Additional connection or per-volume download cost	20	2	0	:	:	:	:	:	:	:	:	33	11	28	19	:	33	22	:	18	34	10	26	22	2	:	11	26	8
Cost of online content	10	2	0	:	:	:	:	:	0	:	:	0	9	22	12	:	6	17	0	11	9	12	5	30	8	:	9	4	11
Content	2	3	10	:	:	:	:	:	:	:	:	:	1	:	6	:	2	2	:	3	1	3	:	2	1	:	2	1	1
Lack of skills or knowledge	10	26	0	:	:	:	:	:	:	:	:	:	17	17	22	:	11	8	:	18	6	20	6	2	15	:	8	7	10
Security or privacy concerns	10	4	0	:	:	:	:	:	:	:	:	34	3	15	14	:	10	12	:	30	4	8	3	3	2	:	5	5	3
None of the above	14	22	0	:	:	:	:	:	:	:	:	:	20	13	21	:	9	12	:	6	14	14	15	9	18	:	23	10	11
Other regions																											
Inadequate foreign language skills	13	:	1	:	9	30	19	6	:	:	:	19	9	:	13	2	16	:	:	:	18	:	:	21	:	8	:	:	:
Lack of time	56	:	40	:	52	67	58	68	52	:	:	50	55	63	78	37	65	:	:	:	79	:	80	59	:	75	:	:	:
Connection is too slow	19	:	7	:	10	17	20	16	13	:	:	24	7	:	15	27	25	:	:	:	12	:	0	4	:	17	:	:	:
Additional connection or per-volume download cost	17	:	3	:	5	10	7	8	5	:	:	25	10	21	15	3	26	:	:	:	30	:	13	20	:	13	:	:	:
Cost of online content	6	:	0	:	6	11	9	7	8	:	:	0	8	19	11	18	3	:	:	:	8	:	0	34	:	11	:	:	:
Content	4	:	3	:	10	6	6	5	:	:	:	5	3	:	6	1	2	:	:	:	4	:	:	2	:	2	:	:	:
Lack of skills or knowledge	17	:	11	:	35	31	32	17	21	:	:	15	15	15	20	11	13	:	:	:	9	:	:	4	:	12	:	:	:
Security or privacy concerns	20	:	10	:	10	29	28	16	10	:	:	33	10	20	11	2	13	:	:	:	8	:	:	1	:	19	:	:	:
None of the above	13	:	0	:	0	9	24	15	19	:	:	11	19	:	18	16	8	:	:	:	15	:	9	9	:	9	:	:	:

Students																													
Inadequate foreign language skills	12	0	0	15	9	13	19	2	:	36	:	:	8	:	9	4	10	2	:	7	8	19	:	10	20	9	7	20	21
Lack of time	50	34	8	51	47	57	57	47	:	50	:	37	56	45	60	38	56	47	:	77	77	62	55	47	58	61	43	43	64
Connection is too slow	19	23	3	45	12	17	13	23	:	20	:	29	10	15	20	28	29	15	:	31	13	19	5	17	16	18	16	15	12
Additional connection or per-volume download cost	21	0	0	30	5	6	5	12	:	:	:	29	12	36	20	8	36	27	:	17	38	15	37	31	3	15	14	36	11
Cost of online content	12	4	0	5	6	11	2	11	:	16	:	:	6	27	8	27	4	23	:	12	13	19	8	39	14	14	11	5	16
Content	5	0	0	31	7	5	0	3	:	19	:	:	2	:	6	0	2	4	:	0	2	4	:	1	2	4	2	:	1
Lack of skills or knowledge	8	27	0	31	25	13	24	9	:	:	:	:	4	:	11	2	7	2	:	15	5	12	3	1	13	6	4	8	7
Security or privacy concerns	12	4	0	10	2	17	19	23	:	37	:	24	5	15	7	0	11	13	:	25	5	8	:	3	1	17	5	5	3
None of the above	20	20	0	10	0	24	39	23	:	:	:	19	24	23	35	15	15	19	:	5	16	19	17	14	20	18	31	14	14
(Self-)Employed																													
Inadequate foreign language skills	16	8	1	16	:	28	19	8	:	27	:	19	9	18	13	2	17	4	:	13	14	33	6	22	19	8	10	24	33
Lack of time	67	48	45	71	:	78	67	70	60	71	:	59	65	75	82	40	72	71	:	74	87	80	72	66	67	79	66	71	80
Connection is too slow	18	7	7	26	:	16	21	16	13	18	:	26	6	15	14	29	23	15	:	27	10	13	2	10	9	18	12	10	7
Additional connection or per-volume download cost	14	2	3	10	:	8	7	8	:	5	:	23	7	22	15	2	24	18	:	18	29	7	17	18	2	12	9	20	5
Cost of online content	11	2	0	10	:	9	9	8	8	35	:	0	7	18	11	15	3	13	0	8	7	11	2	26	6	10	6	3	7
Content	5	4	3	17	:	5	8	5	:	19	:	4	3	:	6	1	2	0	:	4	2	3	:	2	1	2	2	:	1
Lack of skills or knowledge	13	23	5	44	:	28	32	15	19	8	:	14	14	17	20	10	11	9	:	17	6	21	6	3	14	15	8	6	10
Security or privacy concerns	18	5	8	25	:	31	30	17	11	23	:	34	9	18	13	3	12	9	:	29	5	8	3	3	3	21	5	5	2
None of the above	11	21	0	7	:	8	23	15	17	7	:	8	17	10	16	15	6	10	:	5	17	11	13	7	16	6	17	8	8
Unemployed																													
Inadequate foreign language skills	21	0	0	0	10	50	20	2	:	36	:	26	16	:	13	0	13	0	:	15	16	48	:	21	30	18	12	26	53
Lack of time	32	0	16	16	34	17	24	74	:	49	:	16	28	:	57	45	41	31	:	33	46	43	:	27	33	51	31	38	31
Connection is too slow	22	0	19	50	10	17	19	10	:	:	:	26	5	:	24	9	28	30	:	32	11	21	:	10	21	25	11	18	16
Additional connection or per-volume download cost	29	0	0	17	6	32	5	5	:	:	:	45	19	:	31	4	40	51	:	35	66	12	38	13	4	29	29	39	9
Cost of online content	18	0	0	34	9	20	13	2	:	40	:	:	18	31	19	26	10	33	:	24	16	7	:	32	25	20	16	10	15
Content	9	0	0	16	11	3	3	5	:	25	:	:	3	:	10	0	3	8	:	3	1	0	0	0	3	0	:	0	:
Lack of skills or knowledge	16	0	8	16	27	34	26	21	:	:	:	:	21	:	25	9	11	8	:	18	11	26	:	3	28	8	12	12	24
Security or privacy concerns	22	0	35	16	11	15	20	11	:	37	:	35	11	:	12	0	9	27	:	30	4	10	:	0	0	37	4	10	2
None of the above	17	0	0	17	0	11	36	12	:	:	:	:	23	:	25	18	13	17	:	28	18	29	:	16	13	17	22	8	11
Retired or inactive																													
Inadequate foreign language skills	22	7	4	27	12	43	20	8	:	43	:	27	18	40	18	3	25	7	:	27	17	39	:	19	24	9	18	28	59
Lack of time	37	20	32	40	26	49	33	62	33	36	:	30	31	:	59	19	46	53	:	67	74	42	73	48	38	75	37	60	36
Connection is too slow	18	7	7	22	9	21	20	20	:	20	:	24	6	:	12	23	25	15	:	29	10	8	:	17	15	7	11	:	10
Additional connection or per-volume download cost	16	3	3	5	8	13	8	9	:	:	:	31	13	:	13	5	28	26	:	0	35	10	:	27	5	14	10	32	10
Cost of online content	17	8	0	7	9	15	9	9	0	54	:	0	9	0	9	18	6	23	0	34	10	8	0	30	3	8	16	0	8
Content	6	0	5	20	6	8	4	5	:	23	:	:	3	:	7	1	3	2	:	0	2	3	:	0	2	2	3	0	:
Lack of skills or knowledge	25	45	40	61	55	48	36	38	31	13	:	22	33	45	38	23	27	15	:	49	10	42	:	5	28	6	16	:	25
Security or privacy concerns	21	0	15	26	7	34	25	20	:	27	:	37	15	:	11	3	18	27	:	79	7	8	:	3	4	10	7	0	:
None of the above	14	29	0	7	0	6	20	10	:	:	:	14	19	:	21	22	6	10	:	0	19	28	:	12	25	9	28	:	20

Manual workers																													
Inadequate foreign language skills	20	10	0	17	14	35	27	21	:	31	:	25	14	26	15	4	:	6	:	22	17	31	8	28	22	20	12	27	49
Lack of time	65	46	49	79	67	82	71	67	56	65	:	57	66	71	82	36	:	65	:	63	82	80	64	65	59	68	61	72	77
Connection is too slow	17	8	5	29	13	17	27	11	:	16	:	27	5	:	15	34	:	5	:	27	11	13	:	10	8	21	8	11	6
Additional connection or per-volume download cost	15	1	1	12	4	7	5	5	:	:	:	26	7	33	16	1	:	16	:	23	34	8	24	26	1	17	8	24	8
Cost of online content	15	2	1	14	7	7	12	5	0	46	:	0	7	29	12	7	:	14	0	7	9	10	0	33	8	13	6	0	16
Content	6	3	7	22	13	7	7	2	:	18	:	:	3	:	8	2	:	0	:	7	0	3	0	2	1	3	2	:	2
Lack of skills or knowledge	15	21	7	52	32	34	39	23	:	6	:	13	19	29	22	12	:	16	:	24	9	19	11	5	15	19	12	:	20
Security or privacy concerns	17	1	12	30	13	28	35	11	:	20	:	33	4	19	11	2	:	9	:	33	3	8	:	1	1	17	3	6	:
None of the above	10	22	0	2	0	5	25	15	:	:	:	:	12	:	17	16	:	10	:	3	20	10	13	5	21	10	18	5	6
Non-manual workers																													
Inadequate foreign language skills	14	8	1	15	4	24	16	3	:	26	:	16	7	14	12	1	:	3	:	9	12	38	5	20	18	6	10	24	28
Lack of time	67	49	44	68	58	76	65	72	61	73	:	59	64	77	82	42	:	72	:	79	89	79	74	67	71	81	68	71	81
Connection is too slow	18	7	8	24	9	15	19	18	13	18	:	25	7	17	14	27	:	17	:	28	9	12	:	11	10	18	13	9	7
Additional connection or per-volume download cost	14	3	4	9	4	8	7	9	:	6	:	22	7	17	15	2	:	18	:	16	26	7	15	16	2	11	9	19	5
Cost of online content	10	1	0	8	3	10	8	9	0	30	:	0	7	13	10	18	:	13	0	9	6	11	0	24	5	9	6	3	5
Content	5	4	2	15	12	4	8	7	:	20	:	4	3	:	4	0	:	1	:	2	2	3	:	2	1	2	3	:	0
Lack of skills or knowledge	13	24	5	41	30	25	30	12	18	10	:	14	12	12	18	9	:	7	:	13	5	24	5	2	13	14	7	6	8
Security or privacy concerns	19	7	8	23	11	33	28	19	12	24	:	34	11	17	14	3	:	9	:	26	6	7	4	4	3	21	6	4	3
None of the above	11	21	0	9	0	9	22	15	19	7	:	9	19	11	16	14	:	10	:	6	21	14	13	8	14	6	16	8	8

Annex 14: Where or how to obtain skills, 2007 (E5)

Percentage share of individuals with at least low level of computer skills (multiple choice, other category not shown)

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Formal education	37	52	20	27	33	37	42	34	36	35	35	36	32	45	35	44	31	40	54	46	45	57	41	41	55	54	51	43	46
Training, own initiative	18	41	10	7	15	13	21	19	14	13	23	19	15	21	31	27	25	29	17	19	22	14	12	15	17	26	10	17	8
Vocational training, on demand	28	29	22	35	30	24	55	28	26	26	33	43	15	23	26	12	23	15	15	24	20	12	25	20	13	25	15	14	5
Self-study using books	41	50	24	38	36	39	62	34	21	59	32	48	30	53	38	20	52	18	83	47	57	51	42	46	17	40	31	29	32
Self-study, learning by doing	82	92	89	99	98	79	:	85	64	97	83	86	75	94	92	48	85	76	:	87	72	47	60	82	73	81	75	74	66
Informal assistance	78	89	77	96	87	68	96	77	50	93	74	95	57	93	80	33	73	57	:	84	60	83	77	87	61	72	73	64	52
Aged 16-24																													
Formal education	74	86	47	40	60	67	82	77	74	65	78	72	68	81	68	78	70	77	97	80	89	96	93	82	97	89	89	81	69
Training, own initiative	8	12	2	2	2	2	4	2	:	5	9	8	4	14	19	10	20	17	3	11	5	5	6	9	5	15	2	6	2
Vocational training, on demand	6	5	3	3	3	3	7	5	7	3	11	15	4	5	6	3	5	2	:	5	2	2	4	1	2	2	1	2	0
Self-study using books	36	29	13	27	34	34	52	22	16	56	26	39	26	52	33	15	50	16	77	43	53	49	37	44	14	38	31	23	30
Self-study, learning by doing	81	92	82	94	98	74	98	75	63	94	83	90	70	96	92	42	86	75	:	87	71	44	52	84	59	74	72	65	66
Informal assistance	73	87	73	91	87	61	90	73	36	90	70	95	55	95	79	27	79	56	89	81	52	73	66	81	47	68	64	58	52
Aged 25-54																													
Formal education	31	51	17	26	33	35	41	29	31	31	29	34	26	36	28	36	23	29	40	39	36	38	28	29	38	43	34	28	34
Training, own initiative	20	46	9	6	14	13	25	22	15	13	25	19	16	24	34	31	27	34	22	22	26	18	15	16	23	31	14	22	11
Vocational training, on demand	32	33	25	40	33	24	60	32	29	30	37	49	18	28	30	14	26	19	19	27	22	16	30	26	17	33	20	19	8
Self-study using books	43	54	25	39	37	41	64	37	23	59	33	52	31	55	41	22	53	19	85	48	58	52	44	47	19	41	31	31	34
Self-study, learning by doing	85	93	92	99	99	81	:	88	67	98	84	90	78	94	92	50	86	77	:	87	73	49	63	83	79	83	77	79	68
Informal assistance	79	89	78	97	88	66	96	78	54	94	75	96	58	93	81	35	72	57	:	85	61	88	80	89	67	72	76	66	52
Aged 55-64																													
Formal education	9	15	6	12	15	8	10	9	10	10	7	12	9	0	8	13	7	13	0	10	13	7	3	10	7	11	6	8	16
Training, own initiative	24	60	20	9	25	22	27	29	19	28	23	28	24	22	31	48	22	28	27	25	34	28	13	15	29	35	14	24	11
Vocational training, on demand	44	44	35	56	46	48	83	39	36	45	43	55	23	46	43	20	38	28	35	48	39	30	43	41	29	48	37	25	10
Self-study using books	41	61	30	44	39	40	67	37	21	38	58	46	34	43	33	19	48	22	95	40	60	53	43	38	19	46	33	33	26
Self-study, learning by doing	78	93	88	0	99	77	0	81	61	79	95	72	70	92	88	52	78	72	0	76	74	41	63	73	80	92	76	76	51
Informal assistance	80	94	82	100	86	83	99	77	54	75	96	94	61	93	77	35	65	65	0	86	68	90	82	94	73	82	91	69	45
Aged 65 -74																													
Formal education	8	11	4	20	10	5	6	1	0	4	0	0	5	0	7	13	7	10	0	10	12	1	0	1	1	16	8	11	4
Training, own initiative	29	47	32	18	29	41	25	30	0	26	0	35	36	0	35	55	21	23	0	15	25	18	12	34	17	28	29	47	32
Vocational training, on demand	34	50	20	45	38	47	83	31	0	44	0	36	11	0	31	15	21	21	0	18	36	25	33	37	22	28	34	50	20
Self-study using books	39	63	32	43	32	45	53	37	0	32	0	42	33	0	28	15	46	12	0	75	55	54	32	29	6	64	39	63	32
Self-study, learning by doing	69	74	85	95	90	84	0	81	0	82	0	61	71	0	85	49	80	80	0	0	66	41	58	63	75	92	69	74	85
Informal assistance	77	99	81	94	87	86	0	75	0	77	0	86	59	0	68	43	57	74	0	95	61	0	81	87	98	76	77	99	81

Women																															
Formal education	39	56	21	30	37	43	44	36	36	38	36	38	34	49	36	44	34	43	55	50	45	56	41	39	54	54	52	42	47		
Training, own initiative	21	44	14	8	18	18	27	20	16	14	26	24	17	23	37	33	26	35	22	22	27	17	13	16	22	30	13	19	9		
Vocational training, on demand	30	33	22	42	35	31	59	25	26	28	34	46	16	25	25	12	24	16	18	27	23	16	30	25	17	29	19	18	7		
Self-study using books	35	45	20	35	30	37	53	24	15	51	24	40	28	51	33	15	44	14	83	43	52	47	34	37	15	37	28	26	31		
Self-study, learning by doing	79	88	89	:	97	77	:	81	57	95	80	82	74	92	89	43	84	70	:	85	70	42	54	78	70	78	72	69	63		
Informal assistance	79	90	86	100	89	73	99	83	50	96	77	97	62	94	81	31	73	53	:	85	58	82	74	86	60	72	74	61	50		
Men																															
Formal education	35	49	19	23	30	31	39	33	37	33	34	34	31	42	34	44	29	38	52	43	45	58	40	44	55	53	51	44	44		
Training, own initiative	15	38	7	5	12	9	16	19	11	12	19	16	14	19	25	22	24	24	12	17	17	10	12	13	12	23	6	15	7		
Vocational training, on demand	26	25	22	29	26	17	51	31	26	23	33	41	15	21	26	12	21	14	12	20	16	7	20	16	9	21	10	10	4		
Self-study using books	47	54	27	40	42	42	69	43	28	66	40	56	33	55	42	26	58	22	84	50	63	56	50	55	19	44	35	32	34		
Self-study, learning by doing	86	95	89	97	100	81	:	87	70	98	87	89	77	96	94	54	86	82	:	88	74	52	66	87	76	84	78	79	69		
Informal assistance	77	89	70	93	86	63	94	72	49	91	71	93	54	93	80	35	72	61	100	83	61	83	79	88	63	71	72	67	54		
Lower educational level																															
Formal education	36	47	18	24	35	40	43	33	22	27	49	42	32	35	29	39	28	53	82	46	44	89	89	71	91	79	85	83	65		
Training, own initiative	14	31	12	7	14	10	14	15	:	12	15	16	12	20	27	33	17	12	:	7	12	3	4	10	2	8	1	4	1		
Vocational training, on demand	18	19	10	23	17	14	35	19	17	24	17	28	7	16	12	8	12	3	:	5	9	0	3	2	1	4	1	:	0		
Self-study using books	39	36	20	36	33	37	56	29	18	56	23	36	25	44	26	17	41	9	78	47	49	43	32	35	10	35	27	19	24		
Self-study, learning by doing	85	90	87	:	97	76	:	83	56	99	81	82	76	92	92	48	79	80	:	86	73	44	53	84	57	73	68	60	62		
Informal assistance	84	91	83	99	89	74	99	80	36	97	72	96	60	93	84	27	75	69	97	78	64	76	76	88	48	72	66	58	56		
Middle educational level																															
Formal education	35	51	20	25	32	40	37	32	35	43	32	33	31	55	36	44	30	37	50	45	42	47	34	34	44	43	42	36	36		
Training, own initiative	18	44	11	7	16	13	27	20	13	15	24	19	16	23	31	28	27	30	17	16	24	12	12	15	18	26	9	14	8		
Vocational training, on demand	28	26	24	34	33	19	54	30	21	24	35	44	14	26	22	12	26	13	12	21	20	9	25	22	11	24	14	10	4		
Self-study using books	39	51	23	37	36	40	60	35	18	57	32	47	29	59	38	17	52	16	85	41	58	48	41	45	17	38	28	24	27		
Self-study, learning by doing	81	93	90	99	99	82	:	83	63	97	83	86	77	96	91	46	86	76	:	85	73	46	60	81	79	76	77	77	65		
Informal assistance	76	91	78	97	89	75	99	79	45	91	75	95	59	93	82	34	72	60	:	85	61	90	79	87	69	73	78	69	54		
Higher educational level																															
Formal education	40	61	21	31	34	31	47	37	41	42	36	37	34	56	38	46	39	41	45	49	50	53	31	48	53	55	50	38	53		
Training, own initiative	20	48	8	6	14	15	19	24	15	13	24	23	17	22	32	24	27	34	25	33	29	20	20	19	24	32	16	25	11		
Vocational training, on demand	36	44	30	44	42	36	65	37	35	29	38	55	22	35	37	13	27	22	26	40	29	19	41	33	23	32	25	23	12		
Self-study using books	48	63	28	39	41	40	66	41	27	63	40	62	35	65	46	25	62	24	84	60	64	58	55	58	20	44	41	38	49		
Self-study, learning by doing	84	91	91	95	99	78	100	89	67	93	87	89	73	97	92	50	91	76	:	91	70	49	67	87	71	87	77	75	70		
Informal assistance	75	85	73	94	83	55	92	72	60	90	72	94	55	94	77	35	72	51	95	86	54	77	70	83	56	70	66	59	44		
Densely populated areas																															
Formal education	36	:	20	29	34	37	41	35	37	36	35	35	32	42	35	46	30	41	54	43	43	59	38	40	49	51	48	43	48		
Training, own initiative	17	:	9	5	12	9	19	17	13	13	20	18	14	22	28	23	24	28	17	25	21	12	13	13	18	28	10	17	9		
Vocational training, on demand	28	:	22	40	32	27	55	25	25	25	33	43	15	27	29	14	24	18	17	28	25	12	27	20	11	28	17	15	6		
Self-study using books	42	:	23	38	38	41	59	34	22	59	34	50	31	57	39	22	53	20	81	54	65	56	43	44	15	36	35	34	36		
Self-study, learning by doing	83	:	89	98	98	85	100	87	64	96	86	87	77	96	92	53	86	78	:	95	71	56	65	84	69	85	80	77	70		
Informal assistance	76	:	75	96	86	66	90	80	48	93	75	95	59	96	79	43	73	57	96	93	61	83	75	91	59	69	77	64	54		
Intermediate density																															
Formal education	36	53	19	26	35	43	42	32	34	36	37	37	33	48	35	50	32	35	:	45	46	:	43	:	:	61	55	48	:		
Training, own initiative	20	41	9	5	16	10	19	21	15	11	23	22	18	20	30	26	26	26	:	17	21	:	11	:	:	21	10	19	:		
Vocational training, on demand	31	30	25	41	29	21	53	30	32	26	35	45	16	18	24	11	21	14	:	25	18	:	24	:	:	23	15	9	:		
Self-study using books	42	50	24	46	40	35	62	34	23	59	32	47	30	48	39	22	50	30	:	45	58	:	39	:	:	48	29	26	:		
Self-study, learning by doing	83	92	90	100	99	73	99	83	63	99	84	86	74	93	94	49	85	78	:	80	72	:	51	:	:	77	71	79	:		
Informal assistance	80	89	77	98	94	62	95	73	55	92	73	96	57	93	84	29	73	60	:	80	61	:	77	:	:	74	75	72	:		

Thinly populated areas																													
Formal education	38	51	20	26	32	34	42	37	37	34	34	37	29	49	35	37	33	40	54	48	46	54	41	42	60	59	55	42	36
Training, own initiative	18	39	12	9	16	17	23	19	14	13	25	19	8	21	37	34	26	31	19	19	24	15	13	16	17	25	9	16	6
Vocational training, on demand	24	27	21	30	30	23	55	28	21	27	32	40	10	21	18	10	20	12	12	20	16	12	23	21	15	18	12	13	3
Self-study using books	40	49	24	34	33	40	62	34	19	58	31	45	25	51	36	17	51	16	84	45	49	45	43	46	19	52	28	18	18
Self-study, learning by doing	82	90	89	99	98	78	0	83	64	97	81	80	71	93	88	41	82	74	:	88	74	37	62	81	76	70	70	67	48
Informal assistance	79	90	81	96	86	72	99	80	50	94	74	95	49	87	79	25	69	57	:	83	57	82	79	85	63	77	68	62	44
Objective 1 regions																													
Formal education	43	52	8	:	:	:	:	:	:	:	:	37	28	49	36	:	31	40	54	46	47	57	42	42	55	:	51	43	46
Training, own initiative	18	41	7	:	:	:	:	:	:	:	:	16	10	22	34	:	26	29	17	19	22	14	12	14	17	:	10	17	8
Vocational training, on demand	19	29	25	:	:	:	:	:	:	:	:	43	9	19	22	:	17	15	15	24	18	12	24	20	13	:	15	14	5
Self-study using books	39	50	9	:	:	:	:	:	:	:	:	52	41	48	39	:	55	18	83	47	57	51	40	45	17	:	31	29	32
Self-study, learning by doing	77	92	93	:	:	:	:	:	:	:	:	75	75	92	91	:	84	76	:	87	75	47	58	81	73	:	75	74	66
Informal assistance	73	89	80	:	:	:	:	:	:	:	:	93	48	90	82	:	72	57	:	84	60	83	75	86	61	:	73	64	52
Other regions																													
Formal education	34	:	20	:	33	37	42	34	36	:	:	36	33	38	34	44	31	:	:	:	42	0	33	36	0	54	0	0	0
Training, own initiative	19	:	10	:	15	13	21	19	14	:	:	20	16	21	29	27	24	:	:	:	22	0	14	17	0	26	0	0	0
Vocational training, on demand	32	:	22	:	30	24	55	28	26	:	:	43	16	32	27	12	25	:	:	:	23	0	28	25	0	25	0	0	0
Self-study using books	38	:	24	:	36	39	62	34	21	:	:	48	29	63	38	20	50	:	:	:	59	0	56	46	0	40	0	0	0
Self-study, learning by doing	82	:	89	:	98	79	0	85	64	:	:	87	75	98	92	48	86	:	:	:	67	0	74	93	0	81	0	0	0
Informal assistance	76	:	77	:	87	68	96	77	50	:	:	95	59	99	80	33	73	:	:	:	59	0	84	96	0	72	0	0	0
Students																													
Formal education	76	82	43	50	60	67	78	76	:	64	89	68	70	90	72	73	71	84	100	83	92	99	97	87	99	95	91	87	76
Training, own initiative	7	13	2	4	4	3	7	2	:	4	7	8	1	11	16	10	20	16	:	10	4	3	6	7	2	12	1	4	2
Vocational training, on demand	2	7	1	1	5	3	5	2	:	:	3	7	1	:	2	2	3	0	:	1	1	0	:	:	1	:	0	:	0
Self-study using books	40	30	16	27	36	38	55	23	:	55	28	44	26	60	34	17	54	16	77	50	56	49	39	43	14	40	33	24	32
Self-study, learning by doing	81	93	89	92	99	70	98	73	:	94	83	94	70	98	91	43	89	73	100	92	73	47	55	84	59	74	74	62	64
Informal assistance	74	90	70	87	87	61	90	73	:	91	68	95	54	96	79	25	81	59	88	83	53	73	66	79	48	70	63	52	49
(Self-)Employed																													
Formal education	33	47	19	26	:	31	40	32	35	33	31	37	29	37	32	40	24	30	43	42	36	46	27	32	43	42	39	30	35
Training, own initiative	18	47	8	5	:	13	22	22	14	12	23	19	16	23	30	27	26	32	21	23	26	17	14	17	21	31	13	21	11
Vocational training, on demand	33	34	25	39	:	27	61	34	29	31	36	49	19	28	31	14	28	20	19	30	24	16	31	25	17	34	21	19	8
Self-study using books	43	54	24	39	:	40	64	38	22	60	34	51	32	52	40	21	52	20	85	48	60	53	44	48	18	40	32	31	34
Self-study, learning by doing	84	92	90	99	:	81	:	89	67	97	85	90	77	94	93	51	86	78	:	86	73	48	63	84	78	84	76	78	68
Informal assistance	78	88	76	97	:	66	97	77	51	95	74	96	58	93	81	35	71	57	:	85	62	84	79	89	65	72	74	66	53
Unemployed																													
Formal education	40	51	24	36	47	34	50	20	:	36	:	35	25	46	32	58	41	54	57	31	44	55	52	39	51	65	51	40	38
Training, own initiative	22	24	11	16	20	27	33	17	:	17	:	18	18	24	47	27	29	36	:	14	24	13	17	15	31	17	12	18	7
Vocational training, on demand	22	12	12	28	31	17	28	13	:	14	:	47	6	15	13	4	10	7	:	11	10	6	12	14	6	2	6	6	:
Self-study using books	40	24	35	39	40	35	58	23	:	53	:	39	29	49	34	19	54	18	68	29	40	39	42	36	17	36	23	22	17
Self-study, learning by doing	79	76	78	94	99	71	98	73	:	97	:	72	78	92	86	32	83	72	:	75	71	36	54	72	72	79	71	75	71
Informal assistance	79	:	80	94	88	63	85	87	:	93	:	86	56	92	78	35	74	52	:	79	53	90	88	86	61	67	79	74	55
Retired or inactive																													
Formal education	18	31	14	17	14	26	17	6	20	16	19	19	11	18	15	30	12	25	52	6	25	39	28	24	52	61	20	27	12
Training, own initiative	25	48	24	14	29	27	29	31	18	22	26	28	24	26	39	47	23	34	17	16	25	13	10	14	13	23	12	17	5
Vocational training, on demand	29	41	19	36	36	38	69	36	23	30	38	37	15	35	25	11	21	16	17	34	26	10	31	26	10	14	24	16	1
Self-study using books	36	51	23	35	32	41	57	37	19	56	28	41	30	47	32	18	42	11	91	45	53	40	31	31	11	48	26	29	19
Self-study, learning by doing	75	80	87	:	92	83	:	82	54	96	79	69	73	92	87	41	76	73	:	87	67	36	56	70	59	76	76	77	47
Informal assistance	79	95	86	99	89	90	:	72	47	91	78	94	60	95	77	31	68	59	:	90	59	93	79	89	61	72	93	78	50

DANISH TECHNOLOGICAL INSTITUTE

Manual workers																													
Formal education	30	40	17	19	21	30	33	22	38	32	:	28	26	27	29	36	:	21	41	25	25	47	26	25	37	26	33	27	17
Training, own initiative	15	38	5	6	13	13	21	15	11	13	:	12	15	22	28	25	:	24	13	9	19	20	7	14	12	23	7	12	7
Vocational training, on demand	17	14	8	24	23	15	40	11	16	15	:	29	5	12	15	8	:	10	4	14	13	20	8	9	7	10	6	3	1
Self-study using books	39	39	19	36	38	44	63	34	20	59	:	46	23	40	34	22	:	15	88	35	59	56	39	38	17	37	22	19	19
Self-study, learning by doing	86	92	89	98	100	83	:	93	68	:	:	88	85	91	94	57	:	83	:	84	75	49	64	82	90	84	72	90	68
Informal assistance	84	88	78	100	90	80	:	92	42	98	:	:	63	94	88	35	:	70	:	90	73	80	97	93	76	82	87	86	71
Non-manual workers																													
Formal education	34	49	20	27	33	32	42	34	34	34	:	39	30	41	33	41	:	32	44	47	40	42	28	34	45	45	41	31	40
Training, own initiative	19	49	8	5	13	12	22	23	14	12	:	21	17	23	31	27	:	33	24	27	29	9	17	18	25	32	15	23	12
Vocational training, on demand	38	39	28	43	44	32	68	39	32	37	:	55	23	34	37	15	:	22	24	34	28	3	38	31	21	37	26	22	10
Self-study using books	44	59	25	40	38	37	64	39	23	61	:	53	34	57	42	21	:	21	84	52	60	44	46	52	19	40	36	33	38
Self-study, learning by doing	84	93	91	99	100	80	:	88	66	95	:	91	75	95	92	50	:	77	:	87	72	44	62	84	74	83	78	75	68
Informal assistance	76	89	75	96	87	60	94	74	53	93	:	95	56	92	78	35	:	54	94	83	58	99	72	87	61	71	69	62	48

Annex 15: Where or how to obtain skills, 2007 – Age, Education, and Computer skills level (E5)

Percentage share of individuals with respective levels of computer skills (multiple choice)

	Formal education	Training, own initiative	Vocational training, on demand	Self-study using books	Self-study, learning-by-doing	Informal assistance	Otherwise
Aged 16-24, Lower educational level							
Low level of computer skills	59	3	3	18	59	62	2
Medium level	72	5	4	31	80	77	2
High level	71	8	4	43	87	77	3
Aged 16-24, Higher educational level							
Low level of computer skills	57	5	2	21	60	52	0
Medium level	74	9	7	33	81	62	2
High level	78	11	11	50	87	78	5
Aged 25-54, Middle educational level							
Low level of computer skills	14	13	19	17	60	66	2
Medium level	25	20	33	35	78	73	2
High level	34	23	36	57	87	72	4
Aged 55-74, Lower educational level							
Low level of computer skills	3	21	28	24	59	69	4
Medium level	7	25	33	38	67	71	4
High level	7	21	42	55	75	59	5
Aged 55-74, Higher educational level							
Low level of computer skills	6	21	32	25	60	68	3
Medium level	10	26	42	43	76	77	1
High level	23	26	52	63	88	73	4

Annex 16: Selected Internet activities, 2007 (C5)

Percentage share of individuals who have used the Internet within the last 3 months

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Learning purposes	40	46	16	53	71	38	34	60	33	68	14	37	25	67	37	28	55	15	2	45	37	40	36	5	10	54	44	7	34
Seeking health-related information	42	49	54	43	47	60	32	62	28	45	41	56	38	45	41	21	41	23	40	49	44	39	22	29	20	38	29	16	26
Internet banking	44	80	77	83	70	84	71	58	45	51	44	49	52	29	31	42	31	12	83	36	23	43	24	27	50	31	29	5	7
Accessing public websites	47	60	58	65	71	55	59	57	46	58	36	54	31	42	48	45	40	28	43	53	42	36	29	36	31	48	27	14	16
Looking for a job	20	18	22	26	31	33	23	19	21	20	12	23	12	16	19	12	19	14	21	21	25	21	8	20	17	12	16	17	11
Aged 16-24																													
Learning purposes	53	66	23	70	62	75	53	61	47	77	31	61	30	70	44	34	58	17	6	55	62	73	57	5	20	67	55	11	52
Seeking health-related information	29	43	43	36	47	54	28	52	20	37	29	38	28	36	32	12	28	16	27	37	29	28	9	20	15	21	20	8	16
Internet banking	28	80	74	71	59	65	62	27	34	39	31	33	34	11	14	25	12	2	66	18	12	23	9	12	36	11	16	3	2
Accessing public websites	32	46	49	45	62	41	42	35	30	49	26	40	18	21	36	31	19	17	31	56	23	22	15	27	22	30	16	6	6
Looking for a job	27	30	32	37	38	63	40	30	33	31	22	36	14	17	24	17	22	14	28	25	23	24	11	23	20	10	18	17	12
Aged 25-54																													
Learning purposes	38	45	17	54	77	33	34	61	33	66	10	34	24	66	36	28	56	14	:	42	31	25	28	6	5	50	38	6	23
Seeking health-related information	45	53	57	46	49	63	34	64	32	47	43	60	39	48	44	25	45	27	44	53	48	45	26	32	22	44	33	20	32
Internet banking	49	84	82	87	77	91	79	67	50	55	50	55	58	38	37	50	36	15	91	41	26	54	29	34	59	39	37	7	10
Accessing public websites	52	66	62	70	77	61	66	61	51	61	39	59	34	52	53	51	45	33	47	52	48	44	33	39	35	56	34	18	23
Looking for a job	21	18	25	28	37	33	23	19	23	20	11	25	13	:	20	11	20	14	20	22	28	20	7	19	17	13	17	17	11
Aged 55-64																													
Learning purposes	31	34	10	42	67	19	22	48	20	8	65	26	22	57	23	17	51	7	:	36	21	11	27	4	3	41	:	4	21
Seeking health-related information	44	41	54	40	44	53	29	66	23	47	50	62	43	51	38	20	43	15	50	55	50	44	31	45	23	45	:	20	37
Internet banking	46	74	69	84	64	81	61	61	43	41	51	45	55	33	36	34	33	12	83	50	25	48	26	26	41	33	:	:	7
Accessing public websites	50	57	56	69	67	50	56	66	50	34	55	53	36	49	45	44	49	29	57	41	47	41	38	43	35	50	:	13	23
Looking for a job	6	5	5	11	16	6	10	6	:	5	:	7	3	:	5	2	5	7	10	1	18	7	3	7	6	12	3	9	3
Aged 65-74																													
Learning purposes	24	16	9	21	44	14	10	57	:	3	66	20	22	:	8	18	46	19	:	15	16	5	28	0	0	12	:	:	:
Seeking health-related information	44	33	53	34	32	60	30	56	:	42	54	62	40	:	38	21	39	4	54	51	50	55	31	38	25	35	:	:	57
Internet banking	41	59	53	71	47	82	49	40	31	36	51	42	43	:	33	29	36	31	75	37	17	46	:	14	34	41	:	0	:
Accessing public websites	42	53	50	58	44	38	54	56	38	33	47	44	29	:	30	39	44	28	41	47	51	25	32	30	16	35	:	0	:
Looking for a job	1	1	1	4	3	1	1	2	:	:	:	:	0	0	0	2	:	0	:	0	3	4	:	0	2	0	:	0	:
Women																													
Learning purposes	40	51	14	48	68	42	33	54	31	65	14	37	24	68	37	27	54	16	3	47	38	44	36	5	10	55	46	7	36
Seeking health-related information	48	59	61	49	56	72	39	68	31	53	47	65	41	55	47	25	46	27	54	56	50	53	32	35	27	41	37	20	32
Internet banking	41	80	74	80	66	84	67	50	43	47	41	45	49	24	28	40	26	10	86	35	21	45	21	25	53	26	27	5	8
Accessing public websites	46	57	52	60	68	55	57	49	44	58	33	52	28	43	47	45	39	27	44	55	43	39	29	38	35	48	28	15	16
Looking for a job	21	17	23	27	32	36	26	20	22	21	13	25	13	19	23	11	19	16	20	21	27	23	8	19	18	13	16	17	10

Men																													
Learning purposes	41	42	19	59	73	35	35	64	35	71	13	38	26	66	36	29	57	14	2	43	37	36	35	6	9	53	42	7	32
Seeking health-related information	35	39	48	38	38	47	25	57	24	38	36	48	34	36	36	17	37	20	25	42	37	25	13	24	13	34	21	13	20
Internet banking	47	81	80	86	73	84	74	66	46	55	48	52	55	34	34	45	35	13	80	37	24	41	26	29	47	36	31	6	6
Accessing public websites	48	63	63	69	73	54	60	63	48	57	39	56	34	42	49	46	41	29	41	50	41	34	29	34	26	48	27	13	17
Looking for a job	19	18	22	25	31	31	20	18	21	20	11	22	11	14	16	12	18	12	22	21	24	18	7	20	16	12	17	16	12
Lower educational level																													
Learning purposes	42	40	15	50	56	46	30	51	20	60	23	40	22	59	24	21	47	11	4	44	35	72	55	4	16	61	54	10	53
Seeking health-related information	35	40	47	40	37	49	25	56	17	42	30	45	31	31	30	12	30	12	22	23	31	19	6	18	6	14	16	9	10
Internet banking	31	69	67	79	56	65	52	44	23	41	25	33	36	16	13	22	19	3	53	12	11	10	4	4	13	5	:	2	1
Accessing public websites	33	47	40	48	56	36	40	40	20	48	18	37	18	23	26	28	22	11	23	34	21	8	8	19	10	17	:	4	3
Looking for a job	17	17	19	31	27	37	24	19	:	19	15	24	10	10	15	9	11	7	20	7	20	9	6	15	10	1	6	7	4
Middle educational level																													
Learning purposes	36	45	16	49	73	37	27	62	30	72	12	33	22	70	35	26	56	14	2	39	38	32	28	5	9	45	37	6	30
Seeking health-related information	41	50	55	38	48	60	29	65	25	50	41	58	36	52	41	18	43	20	38	49	44	36	23	29	19	29	27	12	25
Internet banking	43	83	78	80	73	89	71	62	41	51	44	51	50	32	29	37	32	9	86	31	20	36	24	28	48	21	26	3	4
Accessing public websites	44	60	58	60	73	53	55	59	41	61	37	55	26	46	45	42	40	25	39	48	40	26	28	35	23	36	24	9	12
Looking for a job	21	20	22	23	32	38	20	19	24	23	12	25	13	20	20	9	19	12	23	25	27	24	9	22	18	11	18	19	14
Higher educational level																													
Learning purposes	47	56	19	62	85	35	45	68	41	77	13	44	30	75	45	33	62	17	:	57	39	35	47	7	8	58	52	8	29
Seeking health-related information	47	58	59	52	57	67	40	67	35	48	46	63	44	61	47	28	48	28	53	59	52	51	31	40	30	48	41	24	37
Internet banking	56	91	84	90	82	90	82	72	56	64	58	60	65	49	43	56	40	17	93	57	34	65	39	46	74	43	49	10	17
Accessing public websites	62	78	74	82	85	70	74	74	61	69	45	69	46	71	63	56	57	36	58	72	61	59	46	55	55	63	47	24	33
Looking for a job	21	15	26	26	36	25	25	18	22	21	11	20	12	24	22	15	26	17	18	20	27	23	6	16	19	15	19	17	11
Densely populated areas																													
Learning purposes	42	:	19	57	77	43	39	60	34	70	15	39	25	68	37	31	56	13	2	60	36	41	36	5	9	59	46	8	33
Seeking health-related information	42	:	55	42	51	64	37	59	25	46	46	60	38	48	42	24	45	23	39	57	48	43	24	28	23	43	34	17	27
Internet banking	45	:	78	88	74	87	76	55	44	53	47	50	51	36	36	45	35	13	84	41	29	52	31	31	56	34	38	7	8
Accessing public websites	49	:	61	70	77	61	62	57	44	60	40	58	31	48	50	47	42	31	37	62	48	43	32	43	32	53	34	18	18
Looking for a job	22	:	26	28	36	35	24	23	23	21	16	25	13	20	21	16	20	15	20	24	28	25	9	21	15	15	19	20	12
Intermediate density																													
Learning purposes	39	49	13	53	68	40	38	59	32	67	14	35	26	62	36	26	54	23	:	34	39	:	37	:	:	48	46	6	:
Seeking health-related information	44	51	53	48	43	58	32	62	31	42	38	55	37	41	41	20	39	25	54	48	46	:	22	:	:	29	25	25	:
Internet banking	44	82	77	82	71	85	73	60	46	44	45	49	53	23	28	45	29	6	87	39	20	:	22	:	:	31	21	6	:
Accessing public websites	47	61	59	71	68	56	62	57	49	53	36	51	30	34	47	47	37	19	80	51	43	:	26	:	:	47	26	4	:
Looking for a job	19	19	20	31	31	35	22	16	19	18	11	21	10	13	18	8	18	14	35	18	27	:	6	:	:	10	15	12	:
Thinly populated areas																													
Learning purposes	39	40	15	52	67	35	31	59	32	66	12	35	15	69	36	26	57	16	3	46	38	40	35	5	11	39	41	6	38
Seeking health-related information	38	44	53	42	45	58	29	67	33	45	37	49	33	43	38	19	35	22	40	46	38	35	20	30	17	24	23	13	16
Internet banking	42	77	76	81	66	82	68	61	47	50	42	45	55	21	23	36	25	11	82	31	17	31	18	25	42	21	19	2	1
Accessing public websites	43	59	54	59	67	50	57	56	49	55	31	47	33	39	44	42	37	25	46	50	34	28	27	32	28	31	19	9	10
Looking for a job	19	14	19	23	28	32	22	14	20	20	8	23	13	12	17	8	19	13	21	23	21	15	8	19	20	4	12	10	8
Objective 1 regions																													
Learning purposes	37	46	14	:	:	:	:	:	44	:	:	42	13	66	37	:	58	15	2	45	38	40	36	5	10	:	44	7	34
Seeking health-related information	34	49	47	:	:	:	:	:	:	:	:	53	43	41	42	:	38	23	40	49	42	39	20	29	20	:	29	16	26
Internet banking	27	80	78	:	:	:	:	:	34	:	:	45	51	26	24	:	21	12	83	36	20	43	22	26	50	:	29	5	7
Accessing public websites	34	60	55	:	:	:	:	:	:	:	:	54	27	39	49	:	40	28	43	53	39	36	27	34	31	:	27	14	16
Looking for a job	19	18	28	:	:	:	:	:	:	:	:	32	18	15	21	:	22	14	21	21	24	21	8	19	17	:	16	17	11

Other regions																														
Learning purposes	36	:	17	:	71	38	34	60	33	:	:	37	26	69	36	28	55	:	:	:	:	36	:	34	3	:	54	:	:	:
Seeking health-related information	44	:	54	:	47	60	32	62	28	:	:	57	37	52	41	21	42	:	:	:	:	46	:	30	30	:	38	:	:	:
Internet banking	49	:	77	:	70	84	71	58	45	:	:	49	52	36	35	42	34	:	:	:	:	28	:	35	31	:	31	:	:	:
Accessing public websites	50	:	58	:	71	55	59	57	46	:	:	54	31	48	48	45	40	:	:	:	:	48	:	37	46	:	48	:	:	:
Looking for a job	21	:	22	:	31	33	23	19	22	:	:	22	11	19	19	12	18	:	:	:	:	28	:	8	22	:	12	:	:	:
Students																														
Learning purposes	63	78	19	80	67	91	68	63	76	80	60	78	35	76	49	51	61	20	8	61	72	90	68	3	27	73	60	13	59
Seeking health-related information	31	50	42	34	49	55	33	54	27	38	35	41	27	40	35	11	31	15	21	37	28	24	8	19	11	23	20	6	16
Internet banking	24	82	67	58	62	61	52	26	35	39	35	33	28	10	11	22	11	2	51	17	11	16	7	7	31	7	14	1	1
Accessing public websites	32	55	45	43	67	46	44	34	33	49	29	46	16	21	36	35	23	18	27	62	23	16	15	27	19	24	15	5	5
Looking for a job	22	30	25	45	36	65	47	25	26	26	22	32	9	13	18	11	20	10	18	23	20	18	9	15	19	9	13	12	9
(Self-)Employed																														
Learning purposes	38	41	18	55	:	30	32	63	33	66	9	35	24	65	36	26	54	14	2	41	31	27	28	6	6	51	40	6	23
Seeking health-related information	42	50	54	43	:	60	31	64	28	46	40	57	38	46	41	24	43	26	42	52	47	43	24	31	23	42	32	19	30
Internet banking	49	82	82	87	:	90	76	68	49	54	47	53	59	35	36	50	37	15	91	40	26	52	29	33	58	39	38	7	10
Accessing public websites	50	63	62	68	:	59	63	63	49	60	38	57	35	49	52	49	45	31	49	51	49	44	33	39	36	57	34	18	23
Looking for a job	19	15	24	26	:	28	19	17	23	18	8	21	9	14	18	11	17	13	19	20	25	20	6	20	17	13	16	17	11
Unemployed																														
Learning purposes	42	39	26	37	61	35	36	41	:	71	:	33	22	66	38	19	58	10	:	40	24	31	40	5	8	62	:	4	16
Seeking health-related information	40	24	62	48	55	64	31	60	:	41	:	49	39	50	45	17	36	20	35	43	37	45	20	25	10	43	:	20	17
Internet banking	33	51	66	84	59	81	65	43	:	43	:	38	42	29	22	17	17	3	74	33	18	26	:	20	28	15	:	:	:
Accessing public websites	45	51	64	62	61	46	53	43	:	61	:	55	29	44	49	35	33	24	35	41	26	21	28	26	17	38	:	5	2
Looking for a job	61	63	74	59	62	66	78	27	51	62	:	76	55	58	49	50	52	41	87	44	58	62	66	78	33	36	48	38	41
Retired or inactive																														
Learning purposes	29	24	9	34	50	18	18	53	19	67	6	25	22	57	21	18	51	10	:	35	22	17	18	1	3	35	26	:	17
Seeking health-related information	48	39	56	46	39	63	34	60	28	53	48	63	46	49	49	20	48	21	59	57	55	53	39	49	24	32	39	32	40
Internet banking	41	61	64	75	49	83	60	49	32	50	40	44	49	27	26	29	28	13	74	50	21	35	21	22	34	24	:	0	:
Accessing public websites	41	40	47	57	50	46	52	59	35	52	32	46	29	37	37	39	35	33	27	43	38	16	25	25	17	26	29	:	7
Looking for a job	10	9	9	13	5	14	8	7	8	8	9	12	6	:	12	6	10	15	15	5	24	17	5	12	12	6	12	10	10
Manual workers																														
Learning purposes	30	29	14	46	68	20	21	51	22	59	:	27	16	55	25	18	:	10	:	24	22	31	12	5	3	32	27	2	17
Seeking health-related information	32	34	43	33	31	49	20	47	18	39	:	41	30	32	31	15	:	22	27	35	39	48	15	22	11	27	19	10	15
Internet banking	39	70	76	86	64	89	70	48	38	45	:	43	49	17	20	36	:	8	83	21	19	61	16	18	41	19	21	2	1
Accessing public websites	36	53	47	53	68	46	50	32	31	49	:	41	18	22	34	35	:	21	28	25	33	53	15	27	14	24	:	5	7
Looking for a job	18	16	19	22	28	30	16	19	18	20	:	21	9	10	17	10	:	10	25	17	27	20	8	30	15	16	15	20	14
Non-manual workers																														
Learning purposes	40	45	19	57	82	35	35	65	35	68	:	38	26	67	41	28	:	15	2	45	33	15	33	6	7	53	44	7	25
Seeking health-related information	46	55	56	46	55	65	35	68	31	48	:	62	40	50	45	26	:	26	49	57	49	29	27	33	27	43	36	21	34
Internet banking	52	86	83	88	82	90	78	73	52	58	:	56	61	41	42	54	:	16	94	46	29	29	33	38	65	41	43	9	12
Accessing public websites	55	66	66	72	82	65	67	69	54	64	:	61	39	57	58	53	:	33	57	59	54	18	39	43	44	61	39	21	27
Looking for a job	19	15	25	27	36	27	19	17	24	17	:	21	9	16	19	11	:	13	17	21	25	20	6	17	17	12	16	16	10

Annex 17: Using eCommerce – When did you last buy or order goods or services for private use over the internet? 2007 (D1)

Percentage share of individuals who have used the internet within the last 3 months
Buying and ordering does not include manually typed e-mails to make online purchases

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Within the last 3 months	36	35	49	54	49	39	45	46	57	37	:	53	20	13	23	40	14	13	9	15	13	7	16	15	9	18	21	5	5
Between 3 months and a year ago	11	19	14	18	1	18	17	13	11	13	:	14	10	8	9	11	6	7	4	12	8	4	15	10	9	5	9	3	3
More than 1 year ago	6	11	6	8	0	5	8	5	5	5	:	8	5	3	5	7	5	3	4	8	2	2	4	7	7	3	7	2	3
Never bought or ordered	47	35	31	21	51	37	29	36	27	45	:	25	65	75	63	43	74	77	83	65	78	87	65	68	75	74	63	90	89
Aged 16-24																													
Within the last 3 months	31	31	47	50	58	44	49	32	74	34	:	67	17	53	18	29	13	11	7	13	10	6	15	14	9	12	22	4	4
Between 3 months and a year ago	11	22	18	24	1	24	25	13	16	16	:	23	10	47	9	8	6	7	2	13	7	4	11	9	11	3	10	2	3
More than 1 year ago	6	12	7	9	0	8	9	6	10	4	:	11	5	:	4	7	4	2	3	10	2	2	3	6	5	4	7	2	3
Never bought or ordered	52	35	28	18	41	23	18	49	:	45	:	:	69	:	69	55	77	80	87	64	81	87	71	70	74	81	61	93	90
Aged 25-54																													
Within the last 3 months	40	39	55	60	55	43	51	52	85	39	:	74	23	100	25	44	16	13	69	16	14	8	16	16	10	20	:	6	6
Between 3 months and a year ago	11	20	14	17	0	20	17	13	15	14	:	17	10	:	10	11	7	7	:	12	9	3	17	10	8	5	53	3	3
More than 1 year ago	6	12	6	8	0	5	8	5	:	5	:	9	6	:	5	7	5	4	31	8	2	2	5	7	8	3	47	3	4
Never bought or ordered	44	29	25	15	45	32	24	30	:	42	:	:	61	:	61	37	72	76	:	64	75	86	62	66	73	71	:	88	88
Aged 55-64																													
Within the last 3 months	32	29	37	44	33	27	33	38	80	29	:	39	16	100	18	33	11	20	:	12	8	2	12	9	4	15	:	100	3
Between 3 months and a year ago	10	15	10	16	0	9	13	10	20	10	:	12	7	:	9	16	4	5	:	6	6	2	11	4	4	8	69	:	5
More than 1 year ago	6	6	6	9	0	5	8	6	:	5	:	8	4	:	5	6	3	1	:	6	1	2	5	7	4	4	31	:	5
Never bought or ordered	52	50	48	31	67	59	45	45	:	57	:	41	72	:	68	44	82	74	:	77	85	94	72	80	88	72	:	:	87
Aged 65-74																													
Within the last 3 months	26	17	23	20	19	15	21	32	100	21	:	71	9	:	17	29	6	27	:	14	17	1	:	6	3	20	:	:	:
Between 3 months and a year ago	8	12	6	10	2	7	9	9	:	7	:	29	5	:	6	8	3	13	:	7	2	0	100	2	0	5	:	:	:
More than 1 year ago	6	6	6	4	0	1	7	0	:	3	:	:	3	:	2	3	2	9	:	8	1	0	:	15	1	0	:	:	:
Never bought or ordered	60	65	66	65	79	77	63	58	:	69	:	:	83	:	75	60	89	52	:	71	81	99	:	77	96	75	:	:	:
Women																													
Within the last 3 months	34	33	46	49	45	38	43	39	53	34	:	51	18	11	19	35	10	10	10	14	11	7	14	15	9	12	19	4	4
Between 3 months and a year ago	10	19	14	19	1	19	17	12	11	12	:	14	9	7	9	12	5	5	3	12	7	3	12	8	8	3	8	2	2
More than 1 year ago	6	9	6	9	0	5	6	4	6	5	:	8	5	3	4	6	4	3	5	6	2	2	4	6	7	3	6	2	3
Never bought or ordered	50	39	34	23	54	38	34	44	29	49	:	27	68	79	68	47	81	82	81	68	80	88	70	71	76	81	67	91	90
Men																													
Within the last 3 months	39	38	52	58	52	40	48	51	61	39	:	55	23	15	26	44	18	15	7	17	14	7	17	15	10	23	24	6	6
Between 3 months and a year ago	11	19	13	17	0	18	18	13	10	14	:	14	10	9	10	10	8	8	4	12	9	4	17	11	9	6	10	3	4
More than 1 year ago	6	12	6	7	0	5	9	5	5	5	:	7	6	4	5	7	6	3	3	10	2	3	5	8	7	3	8	2	3
Never bought or ordered	44	31	29	19	47	37	25	30	25	42	:	23	62	72	59	39	69	73	85	61	75	86	62	66	74	68	59	89	87

Lower educational level																											
Within the last 3 months	23	26	34	42	38	29	35	33	100	26	:	42	13	5	9	22	9	5	100	10	6	4	13	10	3	10	16	100	3
Between 3 months and a year ago	9	16	14	17	1	16	18	11	:	14	:	15	7	4	6	7	5	4	:	11	4	3	7	7	6	0	7	:	3
More than 1 year ago	5	10	6	10	0	6	7	5	:	4	:	9	4	2	4	4	4	1	:	7	1	1	3	4	2	0	5	:	3
Never bought or ordered	62	48	46	32	62	50	41	51	:	56	:	35	76	89	81	67	83	89	:	72	89	92	77	79	88	89	71	:	91
Middle educational level																											
Within the last 3 months	36	34	50	49	50	39	41	49	53	36	:	55	18	59	22	34	15	11	9	13	12	5	15	15	8	13	18	3	4
Between 3 months and a year ago	11	20	14	21	1	20	17	13	12	13	:	14	9	41	9	10	7	7	3	10	8	3	15	9	8	5	8	2	2
More than 1 year ago	6	12	6	7	0	6	9	6	6	5	:	7	5	:	4	8	5	3	3	9	2	2	4	7	6	3	7	2	3
Never bought or ordered	47	34	30	23	49	36	32	32	29	46	:	24	68	:	65	48	73	78	85	68	79	89	66	69	78	79	67	93	91
Higher educational level																											
Within the last 3 months	46	50	61	68	62	47	57	60	71	45	:	59	29	27	32	54	20	17	12	23	20	11	18	22	16	23	32	8	9
Between 3 months and a year ago	12	22	14	14	0	19	18	14	10	15	:	14	12	14	12	13	8	7	6	17	11	4	21	14	12	6	12	4	5
More than 1 year ago	6	10	5	8	0	5	7	4	4	5	:	7	7	5	5	6	6	4	6	7	3	3	7	10	10	4	9	3	5
Never bought or ordered	37	18	20	10	38	30	18	22	15	35	:	19	52	53	51	26	66	72	77	53	67	82	54	54	62	67	48	85	80
Densely populated areas																											
Within the last 3 months	38	:	52	59	55	40	52	44	56	40	:	54	21	15	25	46	14	14	10	17	15	10	17	15	11	21	25	6	6
Between 3 months and a year ago	10	:	14	14	0	19	16	11	10	14	:	13	10	9	10	11	7	7	5	13	10	4	16	10	9	5	10	3	3
More than 1 year ago	6	:	6	11	0	5	7	5	5	5	:	8	5	4	5	7	5	3	6	10	2	3	5	7	7	4	7	3	4
Never bought or ordered	46	:	28	17	44	35	25	40	28	41	:	25	64	72	60	37	74	76	80	60	74	84	62	68	73	69	58	88	87
Intermediate density																											
Within the last 3 months	39	38	47	52	47	36	47	46	85	34	:	53	19	58	20	40	14	7	:	14	12	:	14	:	:	13	17	59	:
Between 3 months and a year ago	11	18	13	22	0	18	16	13	15	14	:	15	9	42	9	11	6	6	:	10	7	:	13	:	:	7	8	41	:
More than 1 year ago	6	10	5	6	0	6	8	6	:	5	:	7	6	:	5	6	5	4	:	7	2	:	4	:	:	2	8	:	:
Never bought or ordered	44	34	35	19	52	39	29	34	:	47	:	24	66	:	66	44	75	83	:	69	79	:	69	:	:	78	67	:	:
Thinly populated areas																											
Within the last 3 months	31	30	46	52	44	39	42	48	82	34	:	49	23	59	18	32	15	12	8	15	11	4	15	15	7	9	18	3	3
Between 3 months and a year ago	11	21	14	18	1	18	18	14	18	13	:	15	10	41	8	12	7	7	2	12	6	3	14	9	8	2	8	2	3
More than 1 year ago	6	11	6	7	0	5	9	3	:	4	:	9	3	:	4	6	5	4	3	8	2	2	4	7	7	1	6	2	1
Never bought or ordered	53	38	34	24	55	38	31	35	:	48	:	28	64	:	70	50	73	78	87	64	81	91	67	68	78	88	68	93	93
Objective 1 regions																											
Within the last 3 months	18	35	53	:	:	:	:	:	100	:	:	46	19	12	18	:	11	13	9	15	11	7	15	15	9	:	21	5	5
Between 3 months and a year ago	8	19	11	:	:	:	:	:	:	:	:	14	9	8	9	:	5	7	4	12	7	4	14	10	9	:	9	3	3
More than 1 year ago	5	11	10	:	:	:	:	:	:	:	:	9	3	3	4	:	4	3	4	8	2	2	4	7	7	:	7	2	3
Never bought or ordered	68	35	25	:	:	:	:	:	:	:	:	31	70	78	69	:	80	77	83	65	80	87	68	68	75	:	63	90	89
Other regions																											
Within the last 3 months	44	:	49	:	49	39	45	46	58	:	:	54	21	54	25	40	16	:	:	:	15	:	19	12	:	18	:	:	:
Between 3 months and a year ago	12	:	14	:	1	18	17	13	11	:	:	14	10	33	10	11	7	:	:	:	10	:	20	9	:	5	:	:	:
More than 1 year ago	6	:	6	:	0	5	8	5	5	:	:	7	6	14	5	7	5	:	:	:	2	:	7	5	:	3	:	:	:
Never bought or ordered	38	:	32	:	51	37	29	36	26	:	:	24	64	:	60	43	73	:	:	:	74	:	54	73	:	74	100	:	:
Students																											
Within the last 3 months	27	29	47	42	56	44	47	31	100	36	:	67	17	52	17	27	13	12	100	16	9	6	17	13	8	12	55	4	5
Between 3 months and a year ago	11	24	21	26	1	22	25	16	:	20	:	22	9	48	10	7	7	6	:	17	9	3	10	10	12	3	26	1	3
More than 1 year ago	5	12	9	10	0	8	6	8	:	6	:	10	4	:	3	7	4	2	:	11	2	2	3	6	5	2	19	2	2
Never bought or ordered	57	34	23	22	43	27	22	45	:	39	:	:	70	:	69	58	75	81	:	56	81	89	69	71	75	83	:	94	89
(Self-)Employed																											
Within the last 3 months	40	39	54	59	:	41	49	52	62	39	:	58	23	15	25	46	16	13	10	17	14	8	16	16	11	20	23	5	5
Between 3 months and a year ago	11	19	15	18	:	19	17	12	11	14	:	14	10	9	10	12	7	8	4	11	9	4	16	10	9	5	9	3	3
More than 1 year ago	6	11	6	8	:	5	8	4	5	5	:	7	6	3	5	7	5	4	5	8	2	2	5	7	7	4	7	3	4
Never bought or ordered	43	32	26	15	:	35	26	31	22	43	:	21	60	72	60	36	72	75	81	65	75	86	63	67	73	71	62	89	87

Unemployed																													
Within the last 3 months	25	9	33	50	44	33	50	36	:	:	:	38	16	:	18	25	11	10	:	8	9	4	:	14	5	9	:	59	:
Between 3 months and a year ago	8	41	19	10	0	15	14	11	:	:	:	12	8	:	4	7	6	2	:	9	4	4	100	5	4	3	52	41	22
More than 1 year ago	7	10	11	10	2	6	12	5	:	:	:	12	5	:	5	10	4	2	:	9	2	1	:	8	3	6	48	:	78
Never bought or ordered	59	40	37	30	54	47	25	48	:	:	:	38	71	:	73	58	79	87	:	75	85	91	:	73	87	83	:	:	:
Retired or inactive																													
Within the last 3 months	30	18	36	36	22	25	27	33	41	27	:	41	14	:	13	26	9	16	:	6	11	3	12	10	4	15	:	:	4
Between 3 months and a year ago	9	13	8	13	1	12	14	12	9	9	:	13	7	:	7	11	3	6	:	8	3	2	11	7	6	4	50	:	1
More than 1 year ago	6	9	5	7	0	4	10	4	8	5	:	8	4	:	6	6	3	4	:	5	2	1	3	10	6	4	50	:	2
Never bought or ordered	55	60	51	44	77	59	49	52	43	59	:	38	75	:	74	57	84	74	:	81	84	94	73	72	83	76	:	:	92
Manual workers																													
Within the last 3 months	30	29	39	44	41	34	38	31	82	:	:	49	15	100	14	36	:	10	100	13	9	10	11	9	6	9	12	46	1
Between 3 months and a year ago	11	17	15	24	1	18	15	10	18	:	:	16	8	:	8	11	:	9	:	3	5	4	13	9	5	2	7	:	3
More than 1 year ago	6	12	7	11	0	6	10	6	:	:	:	7	6	:	4	8	:	1	:	6	0	3	4	5	6	1	6	54	3
Never bought or ordered	54	42	40	21	59	43	37	53	:	:	:	28	72	:	74	45	:	80	:	77	85	83	73	77	84	88	75	:	93
Non-manual workers																													
Within the last 3 months	44	42	57	63	62	45	52	57	66	:	:	61	26	18	30	49	:	14	12	18	16	3	18	19	13	21	27	6	7
Between 3 months and a year ago	12	19	15	16	0	20	18	13	11	:	:	14	11	11	11	12	:	7	5	13	10	2	18	10	10	6	10	4	4
More than 1 year ago	5	10	6	7	0	5	7	4	4	:	:	7	6	4	5	6	:	4	7	8	2	1	5	8	8	4	7	3	4
None of the above	39	29	23	13	38	30	23	26	19	:	:	19	57	66	54	33	:	74	76	61	72	94	59	64	69	69	56	87	86

Annex 18: Safety copies or back up files, 2007 (C11)

Percentage shares of individuals who have used the internet within the last 3 months

	EU27	IS	NL	NO	DK	FI	SE	LU	UK	FR	AT	DE	BE	PT	ES	IE	IT	GR	EE	SI	HU	LT	CZ	SK	LV	CY	PL	BG	RO
All individuals																													
Always or almost always	23	18	25	18	17	19	15	26	20	35	23	25	20	17	18	27	20	43	14	23	19	17	32	22	18	32	13	26	28
Sometimes	32	31	32	31	26	28	26	34	29	29	19	41	32	34	29	24	24	22	41	36	31	42	38	41	31	30	39	37	42
Never or hardly ever	35	47	42	46	55	41	51	35	46	30	48	24	39	38	43	32	49	14	35	31	37	22	13	30	34	23	31	28	18
Not applicable	8	3	1	4	2	11	6	5	5	6	9	9	9	10	9	17	5	21	10	10	13	19	15	7	17	15	18	10	12
Aged 16-24																													
Always or almost always	23	18	27	18	17	16	16	26	23	44	20	24	18	19	16	24	13	35	14	18	14	22	26	15	20	29	12	23	28
Sometimes	35	33	35	33	29	28	24	43	32	28	23	43	36	38	33	26	25	24	50	50	30	51	45	44	37	32	46	37	44
Never or hardly ever	34	48	37	46	53	51	54	29	41	25	50	29	38	32	43	29	55	16	27	27	43	17	12	35	29	23	28	26	15
Not applicable	7	0	1	3	1	5	4	2	:	:	:	:	8	12	8	19	5	26	9	5	13	10	15	7	14	16	15	14	13
Aged 25-54																													
Always or almost always	24	18	26	19	18	20	15	25	21	34	24	24	21	17	19	28	22	45	14	25	20	15	34	25	17	33	14	28	28
Sometimes	32	33	30	32	27	30	27	34	28	29	18	42	31	33	28	23	25	21	39	32	32	38	35	41	28	30	35	37	41
Never or hardly ever	36	46	42	44	53	39	51	36	47	31	48	24	39	41	43	32	46	14	37	31	35	24	14	28	35	23	33	28	19
Not applicable	8	3	1	5	2	11	5	5	:	:	:	9	9	9	10	16	5	20	9	11	13	23	15	6	19	14	19	8	11
Aged 55-64																													
Always or almost always	24	19	24	17	18	16	15	30	18	23	26	33	20	16	19	23	19	57	10	19	21	13	35	24	17	30	10	23	21
Sometimes	29	26	32	26	20	25	23	23	28	18	28	35	29	29	26	22	22	19	31	26	29	34	33	40	23	23	34	35	43
Never or hardly ever	36	48	43	52	58	39	49	38	48	47	35	17	40	41	41	39	49	11	44	38	35	23	15	30	41	29	29	35	21
Not applicable	11	6	1	3	3	20	11	9	0	0	11	14	10	14	13	16	7	13	14	17	15	30	17	7	19	17	27	7	15
Aged 65-74																													
Always or almost always	20	10	19	12	6	18	10	27	0	18	0	28	20	0	20	14	12	50	0	11	25	6	20	13	6	24	0	0	0
Sometimes	28	20	32	29	22	23	27	25	23	18	31	35	21	0	25	24	19	26	27	30	21	14	39	27	7	35	0	42	32
Never or hardly ever	38	58	46	50	65	44	53	33	53	49	29	20	46	0	43	42	61	7	40	59	38	24	23	24	61	6	0	0	0
Not applicable	13	12	3	9	5	15	9	15	0	0	18	16	14	0	13	20	5	17	0	0	17	56	0	36	26	35	0	0	36
Women																													
Always or almost always	21	14	21	17	15	17	12	21	19	34	17	22	18	17	15	27	18	42	12	23	19	18	32	24	17	32	13	26	28
Sometimes	30	31	30	30	24	25	22	34	25	27	17	39	29	31	27	22	22	21	39	35	31	43	35	41	30	30	38	37	41
Never or hardly ever	38	51	47	48	58	44	56	37	51	32	55	27	43	43	48	32	52	16	38	32	36	21	14	28	36	24	31	28	19
Not applicable	10	4	2	4	3	13	9	9	5	7	:	12	10	10	10	19	6	22	11	11	14	18	18	7	17	14	19	8	12
Men																													
Always or almost always	25	22	29	19	18	20	18	30	22	36	28	29	22	18	20	27	21	43	16	23	19	17	33	21	19	32	13	25	28
Sometimes	34	32	33	32	28	31	30	34	32	30	22	42	34	37	31	26	26	22	44	38	31	42	40	41	31	29	40	36	43
Never or hardly ever	33	43	37	44	52	39	47	33	42	28	43	21	37	35	40	33	46	14	31	30	38	22	13	31	33	23	31	27	16
Not applicable	7	2	1	4	1	9	4	3	4	5	:	7	8	11	9	15	5	21	9	9	12	20	13	7	17	16	16	11	12
Lower educational level																													
Always or almost always	20	15	20	15	14	12	15	21	:	32	20	24	12	10	11	17	12	28	10	14	9	16	18	12	14	25	8	16	23
Sometimes	29	26	29	30	23	21	22	34	19	27	22	37	29	29	25	22	21	16	43	40	24	49	47	38	35	30	42	37	39
Never or hardly ever	39	54	49	48	61	54	52	36	59	31	48	27	46	43	50	34	56	16	35	39	48	22	14	42	30	22	31	29	23
Not applicable	11	4	2	6	2	12	9	8	:	10	:	11	12	18	14	27	8	40	12	7	18	14	20	8	22	23	20	18	16

Middle educational level																													
Always or almost always	22	17	23	17	17	19	13	27	20	39	22	25	18	23	18	25	21	39	10	21	18	14	32	22	13	28	11	21	23
Sometimes	32	34	31	28	25	29	24	34	29	25	18	41	32	34	28	21	25	24	37	35	31	36	35	41	26	28	34	35	43
Never or hardly ever	36	46	45	50	54	40	54	35	46	30	49	24	39	36	44	34	48	14	41	32	38	24	14	30	39	26	34	31	20
Not applicable	10	4	1	4	3	12	7	5	5	6	:	11	11	7	10	19	5	23	11	13	14	27	17	7	21	18	21	13	14
Higher educational level																													
Always or almost always	28	24	33	21	20	23	17	30	24	35	27	29	28	24	23	32	26	50	21	31	27	21	44	33	29	36	20	35	40
Sometimes	35	35	34	36	30	32	30	34	31	34	21	44	33	42	32	27	28	21	45	39	37	46	39	46	36	31	47	39	43
Never or hardly ever	32	40	32	39	49	34	47	33	43	29	45	22	35	33	39	30	42	14	26	25	27	19	10	18	27	22	25	23	10
Not applicable	5	1	1	4	1	10	5	3	:	:	:	5	5	:	6	11	3	15	8	5	9	13	6	3	8	11	8	4	7
Densely populated areas																													
Always or almost always	24	:	27	19	16	21	17	28	20	35	23	26	21	18	18	24	19	46	17	26	22	19	34	16	19	34	14	28	30
Sometimes	33	:	33	28	28	29	26	32	28	29	20	42	31	33	30	24	24	21	44	31	34	45	40	40	32	30	40	37	42
Never or hardly ever	35	:	39	48	54	38	49	34	47	30	47	23	39	41	43	33	50	14	32	39	31	19	13	39	36	24	30	27	17
Not applicable	8	:	1	3	1	12	7	6	5	6	:	9	9	7	9	18	5	19	7	3	12	18	13	6	13	12	16	8	11
Intermediate density																													
Always or almost always	23	20	23	16	20	20	15	24	23	42	24	25	18	17	18	27	20	46	:	27	19	:	31	:	:	23	13	27	:
Sometimes	32	33	33	36	23	29	26	35	29	25	19	40	32	32	27	29	25	16	38	36	28	:	38	:	:	30	39	39	:
Never or hardly ever	35	45	43	44	56	40	52	37	44	26	47	25	40	35	43	30	47	16	30	30	38	:	13	:	:	25	30	26	:
Not applicable	9	3	1	4	1	12	5	5	:	:	:	10	9	15	11	14	5	22	:	7	15	:	15	:	:	21	18	8	:
Thinly populated areas																													
Always or almost always	22	15	24	18	16	17	14	27	19	32	22	25	18	15	18	29	20	38	9	18	14	16	31	25	16	29	12	20	19
Sometimes	31	29	29	31	25	28	26	35	30	30	19	39	35	38	28	20	25	23	38	39	30	39	35	42	29	29	36	37	44
Never or hardly ever	37	51	45	46	55	44	52	32	47	32	50	25	36	35	44	33	48	14	38	27	43	25	14	26	33	19	32	30	20
Not applicable	10	5	1	5	3	11	7	6	:	6	:	11	10	12	10	18	5	24	14	16	13	20	18	7	21	23	20	14	18
Objective 1 regions																													
Always or almost always	21	18	18	:	:	:	:	:	38	:	:	24	18	18	19	:	19	43	14	23	17	17	33	23	18	:	13	26	28
Sometimes	35	31	30	:	:	:	:	:	:	:	:	44	36	35	26	:	25	22	41	36	30	42	36	42	31	:	39	37	42
Never or hardly ever	30	47	50	:	:	:	:	:	:	:	:	21	34	35	45	:	48	14	35	31	40	22	14	29	34	:	31	28	18
Not applicable	13	3	2	:	:	:	:	:	:	:	:	10	12	12	10	:	6	21	10	10	13	19	17	7	17	:	18	10	12
Other regions																													
Always or almost always	22	:	26	:	17	19	15	26	20	:	:	26	20	16	18	27	20	:	:	:	22	:	29	19	:	32	:	:	:
Sometimes	32	:	32	:	26	28	26	34	29	:	:	40	31	32	31	24	24	:	:	:	33	:	47	38	:	30	:	:	:
Never or hardly ever	39	:	42	:	55	41	51	35	47	:	:	24	40	45	43	32	49	:	:	:	31	:	13	37	:	23	:	:	:
Not applicable	7	:	1	:	2	11	6	5	4	:	:	9	9	7	9	17	5	:	:	:	13	:	9	7	:	15	:	:	:
Students																													
Always or almost always	22	19	33	17	17	21	17	25	27	37	24	21	19	23	17	32	13	34	14	23	15	24	26	14	20	28	12	23	31
Sometimes	38	33	36	40	30	29	26	48	38	31	30	46	37	41	37	30	26	26	55	49	33	52	48	48	42	34	47	39	43
Never or hardly ever	33	47	31	41	51	46	54	23	33	26	42	30	39	30	41	28	54	14	24	26	42	15	10	32	26	20	28	25	14
Not applicable	7	0	0	2	1	5	2	3	:	:	:	:	6	6	5	10	5	26	8	2	11	9	13	6	12	18	13	14	12
(Self-)Employed																													
Always or almost always	25	19	28	19	:	19	15	27	22	35	24	26	21	17	20	27	22	46	15	24	21	17	36	26	19	34	15	28	28
Sometimes	32	32	32	30	:	29	26	34	29	29	18	41	32	33	29	24	25	21	41	35	32	41	36	40	28	30	37	37	42
Never or hardly ever	35	46	40	47	:	40	51	35	46	31	47	24	39	40	42	32	46	14	34	31	34	23	13	28	35	23	31	27	18
Not applicable	8	3	1	4	:	12	6	4	4	5	:	8	8	10	9	16	5	19	10	10	13	20	13	7	18	13	17	8	12
Unemployed																													
Always or almost always	24	12	21	11	13	17	13	19	:	45	:	29	15	:	11	28	17	33	:	22	12	4	21	14	15	41	9	13	11
Sometimes	30	0	35	22	25	29	24	28	:	24	:	38	28	27	29	15	22	19	31	25	20	24	32	34	17	25	31	31	41
Never or hardly ever	34	88	41	56	60	40	53	43	:	24	:	21	42	41	46	30	55	27	49	27	47	34	:	39	43	24	33	37	30
Not applicable	12	0	4	11	2	14	10	10	:	:	:	13	16	:	14	27	5	21	:	26	21	38	32	12	25	11	27	19	18

Retired or inactive																													
Always or almost always	18	10	17	16	10	17	12	25	12	27	15	24	17	:	9	16	12	41	:	10	16	5	13	11	4	18	5	22	8
Sometimes	28	21	29	33	21	24	28	22	25	29	18	36	25	:	21	21	19	18	19	19	28	26	28	41	29	26	24	25	38
Never or hardly ever	40	58	51	44	64	45	48	40	54	32	54	22	44	44	53	39	57	11	55	54	40	29	25	37	44	29	39	43	35
Not applicable	14	11	3	7	4	14	9	13	9	12	:	17	14	23	17	24	8	30	19	17	16	40	34	11	22	27	32	10	19
Manual workers																													
Always or almost always	18	13	16	15	12	15	11	19	12	37	:	24	11	6	11	12	:	32	5	14	11	20	15	10	8	17	7	10	7
Sometimes	30	32	33	28	25	26	24	31	34	22	:	41	31	27	25	26	:	16	31	22	27	45	33	35	22	24	27	32	40
Never or hardly ever	39	49	49	50	59	47	56	43	48	33	:	24	45	45	49	35	:	18	48	48	43	20	23	43	41	28	38	40	32
Not applicable	12	5	2	7	2	12	8	8	:	8	:	11	13	22	15	26	:	33	16	16	20	15	27	13	29	31	29	18	22
Non-manual workers																													
Always or almost always	27	20	30	20	21	21	17	29	24	34	:	27	24	20	24	32	:	49	19	26	24	7	43	30	24	36	17	32	33
Sometimes	33	32	31	31	26	31	26	35	27	32	:	41	32	35	30	24	:	22	46	38	33	29	37	41	31	30	41	38	42
Never or hardly ever	34	45	38	46	51	36	50	33	46	31	:	24	37	38	40	31	:	13	29	26	32	30	10	24	32	23	29	24	15
Not applicable	6	2	1	3	1	12	6	3	2	4	:	8	7	6	7	13	:	17	7	9	11	35	9	5	13	11	13	6	10

Annex 19: List of identified measurement and monitoring initiatives

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Austria	*Evaluation of the Austrian Pilot Project 'eLearning and eTeaching Using Students´ Notebooks'*	• General education	• Regional • National	• ARBOR Management Consulting • University of Vienna, Arbeitsbereich Bildungspsychologie and Evaluation
	MOODLE MOBILE	• General education	• National	• Information management, FH Prof. DI Dr. Alexander K. Nischelwitzer

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Belgium	*ICT-monitor voor Flanderen*	• Population at large • Public sector • Private sector • Other	• Regional	• The unit Media-Innovatie of the DG Media of the Flemish Government • CORVE - Coordinating unit Flemish e-Government • Innoxys • IBCN - Broadband Communication Networks • ICRI - Interdisciplinary Centre for Law and ICT • MICT - Research group Media & ICT of Gent University • SMIT - Studies on Media, Information and Telecommunication of the Free University of Brussels
	Citoyens wallons: Usages TIC 2006	• Population at large • Public sector • Private sector • Other	• Regional	• AWT

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Bulgaria	*SIBIS, BISER*	• Population at large • Public sector • Private sector • Other	• International/national	• Benchmarking projects

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Canada	*Summative Evaluation on the Office of Learning Technologies*	• Population at large • Disadvantaged groups • Ethnic, cultural and language minorities • Geographically deprived • Other	• Regional/federal	• Human Resources and Skills Development Canada – Office of Learning Technologies
	Evaluation Study of the Community Access Program	• Population at large • Geographically deprived • Other	• National	• Industry Canada – Audit and Evaluations Branch
	Review of the e-Health Program Activities, 2002-2005: Final Report	• Ethnic, cultural and language minorities • Geographically deprived • Other	• Regional/federal	• First Nations and Inuit Health Branch (FNIHB), Health Canada
	International Adult Literacy Survey (Canadian Component)	• Ethnic, cultural and language minorities	• International • National	• Culture, Tourism and the Centre for Education Statistics Division

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Cyprus	*Statistical indicators*	• Population at large • Public sector • Private sector • Other	• National	• Statistical Service of the Republic of Cyprus

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Czech Republic	*STEM/MARK*	• Population at large	• National	• Ministry of Informatics
	Statistical indicators	• Population at large • Public sector • Private sector • Other	• National	• CZSO – Czech Statistical Office

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Denmark	*Borgernes IT-færdigheder (Citizens' ICT Skills project)*	• Population at large • Public sector • Private sector • Other	• National	• IT- og Telestyrelesen/Danish Technological Institute
	QuickTjek	• General education	• National	• Dansk IT/others like FOF

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Estonia	*TNS Emor eTrack Survey*	• Population at large • Public sector	• National	• Department of State Information Systems

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Finland	*Civic Innovations and Digital Applications*	• Population at large	• Local	• Non-profit/ Community organisation
	An analysis of the situation of Information Society as regards to people with disabilities	• Disabled groups	• N/A	• Diaconia University of Applied Sciences, the Turku unit

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
France	*INSEE*	• Population at large	• National	• INSEE
	CREDOC – La diffusion des technologies de l' information dans la société francaise	• Population at large	• National	• ARCEP
	SESSI	• Population at large	• National	• SESSI
	Caisse des Dépots et Cognations	• Population at large	• National	• Caisse des Dépots et Cognations
	Mission Econter – Politiques locals de development des usage TIC et de lutte contre la fracture numérique	• Population at large	• Non-profit • Community	• Mission Econter
	Créatif	• Population at large	• Community	• Not specified
	Association e-Seniors	• Population at large • Older persons	• Community	• Association e-Seniors
	Foundation Internet Nouvelle Génération	• Population at large • Young persons at risk	• Community	• Foundation Internet Nouvelle Génération
	Renaissance Numéric : 2010, l'Internet pour tous : 15	• Non-profit	• Population at large • General education	• Renaissance Numéric

	mesures pour réduire la fraction numérique en France			
	Villes Internet	• Population at large	• Local	• Villes Intenet
	DUI, Baromètre des Usages de l'Internet	• General education	• National	• DUI
	Statistial indicators	• General education	• National	• Ministry of National Education and Higher Teaching and Research

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Germany	*(N)onliner Atlas*	• Population at large	• National	• TNS Infratest
	IT Equipment of Schools and Vocational Schools in Germany	• General education	• National	• Federal Ministry of Education and Research
	KIM Study	• General education	• National	• Mediepädagogischer Forschungsverbund Südwesst
	JIM Study	• General education	• National	• Mediepädagogischer Forschungsverbund Südwesst
	2002: Assessment of the 1999 Action Programme	• Population at large • Public sector • Other	• National	• Federal Ministry of Economics and Technology • Federal Ministry of Education and Research

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Greece	*Greek research & technology Network S.A. – National surveys on New Technologies & Information Society*	• Population at large • Companies (SMEs and large companies)	• National • Regional	• GR NET S.A.

	Observatory for the Greek Information Society	• Population at large • Public sector • Other	• National	• OP.IS – Operational Programme of Information Society

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Hungary	*WIP – World Internet Project Hungary*	• Population at large	• International/national	• World Internet Project Hungary
	SIBIS	• Population at large	• International/national	• SIBIS, local partner not specified

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Iceland	*Statistical indicators*	• Population at large • Public administration	• National	• Statistics Iceland

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
India	*Akshaya Project*	• Disadvantaged groups • Woman • Geographically deprived	• Regional	• Government of Kerela • UNESCO
	IT Enabled Education in Delhi Government Schools	• General Education	• Regional	• Government of Delhi
	Report on the National Consultation by Solution Exchange of UNESCO on the Sponsored Discussion on Digital Literacy Initiatives in	• Population at large • General Education • Disadvantaged Groups	• National • Regional • Local	• Solution Exchange of UNESCO

	India			

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Ireland	*CAIT (Community Application of Information Technology) Initiative*	• Population at large • Ethnic, cultural and language minorities • Geographically deprived	• National	• WRC Social and Economic Consultants
	Learning Society Foresight (Futures Ireland Project)	• Population at large • General education	• National	• Not specified
	Schools for the Digital Age. Information and Communication Technology in Irish Schools	• General education • Public sector	• National	• National Centre for Technology in Education • NUI Maynooth
	ASC - Access, Skills and Content	• Population at large • General education	• National • Non-profit • Community	• Not specified
	Equal Skills	• Population at large	• National	• Not specified, but is the result of a 2002 EU funded pilot project

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Italy	*Statistical indicators*	• Population at large • Public sector • Private sector • Other	• National	• National Statistical Office of Italy

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
	No initiatives identified	• N/A	• N/A	• N/A

Latvia				

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Lithuania	*Vaiva Nemaniene (expert)*	• Population at large	• National	• Vaiva Nemaniene (expert)

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Luxembourg	*No initiatives identified*	• N/A	• N/A	• N/A

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Malta	*Statistical indicators*	• Population at large • Public sector • Private sector • Other	• National	• National Statistics Malta
	E-Commerce Survey	• Population at large • Public sector • Private sector	• National	• Malta Communications Authority
	E-Commerce Gap Analysis	• Population at large • Public sector • Private sector	• National	• Ministry of Investment Industry and Information Technology
	Electronic Communications Market Review	• Population at large • Public sector	• National	• Malta Communications Authority

		• Private sector		

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Norway	*Vox-kompetansetrappen*	• Population at large • Public sector • Private sector • General education • Other	• National • Non-profit	• Vox
	Vox-barometer	• Population at large • Public sector • Private sector • General education • Other	• National • Non-profit	• Vox
	ITU Monitor	• General education	• National • Non-profit	• ITU University of Oslo
	Why Aren't People Buying Broadband?	• Population at large • Non-users	• National	• Norsk Telecom

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Poland	*Indicators from the European Committee/Capgemini*	• Population at large • Public sector • Private sector • Other	• International/national	• European Committee • Capgemini
	Social Diagnosis	• Population at large	• Non-profit	• University of Finance and Management in Warsaw
	Strategy of the Country Development: 2007-2015	• Population at large • Public sector • Private sector	• National	• Government of Poland

		• Other		
	ec eGov - Organisational Change for citizen-centric eGovernment	• Population at large • Public sector • Private sector • Other	• International/national	• ec eGov
	SIBIS/BISER	• Population at large • Public sector • Private sector • Other	• International/national	• SIBIS, local partner not specified
	ZPORR	• Other	• National	• Ministry of Regional Development
	UNDERSTAND - European Regions UNDER way towards STANDard indicators for benchmarking information Society	• Other	• Regional	• Polish partner not specified

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Portugal	*Statistical Information System*	• Population at large • Public sector • Private sector • Other	• National	• Interministerial Commission for the Information Society
	Information Knowledge Society	• Population at large • Public sector • Private sector • Other	• National	• UMIC – Knowledge Society Agency

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Slovak	*Digital Literacy in Slovakia*	• Population at large • Public sector	• Non-profit • National	• Institute of Public Affairs

Republic				

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Slovenia	*Statistical indicators*	• Population at large • Public sector • Private sector • Other	• National	• Statistical office of the Republic of Slovenia • RIS
	SI 2010 Strategy of development information society in Republic of Slovenia	• Population at large • Public sector • Private sector • Other	• National	• Government of Slovenia
	SITES Second Information Technology in Education Studies)	• General education	• National	• Educational Research Institute
	Computer literacy – project ALL	• Population at large • General education • Public sector	• National	• RIS - Research on Internet in Slovenia at Faculty of Social Sciences, University of Ljubljana

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Spain	*No initiatives identified*	• N/A	• N/A	• N/A

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
Sweden	*IGPS Survey*	• Population at large • General education	• National	• Institute for Growth Policy Studies
	The National Communications Survey	• Population at large • Public sector • Private sector • Other	• National	• SIKA - Swedish Institute for Transport and Communications Analysis
	Internet Barometer Sweden	• Population at large • Public sector • Private sector • Other	• National	• Nordicom Sverige • MedieSverige
	IT in small enterprises	• Private sector	• National	• NUTEK
	IT in the School	• General education	• National	• PLS Rambøll Management

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
The	*De Digitale Economie*	• Population at large • Public sector • Private sector	• National	• Statistics Netherlands

Netherlands	*Jaarboek ICT en Samenlevving 2007(Yearbook ICT and Society)*	• Population at large • Public sector • Private sector • Other	• National	• Social Planning Office of the Netherlands • Cultural Planning office of the Netherlands
	Vier in Balans Monitor 2006	• General education	• National • Social partners/stakeholders	• Monitor 2006
	ICT in Cifers	• General education	• National	• ICT-ondervijsmonitor
	Acterstand en Afstand – Digitale Vaardigheden van Lager Opgeleiden, Ouderen, Allochtonen en Inactieven	• Lower educated • Elderly • Non-natives • Inactives	• National	• Social- and Cultural Planning Office of the Netherlands

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
United Kingdom	*Internet Usage in the UK – Ofcom Report*	• Population at large	• National • Non-profit	• Ofcom
	eGovernment: Reaching socially excluded groups	• Population at large • Disadvantaged groups	• National	• Office of the Deputy Prime Minister • Social Exclusion Unit • I&DeA • IECRC • Citizens online
	Leitch Review - Prosperity for all in the global economy - world class skills	• Population at large • Public sector	• National • Non-profit	• HM Treasury
	Local Authorities Social Inclusion Strategy	• Population at large • Public sector	• Local • Non-profit	• IECRC
	Releasing Resource to the Front-line	• Population at large • Public sector	• National • Non-profit	• HM Treasury • Peter Gershon

Country	Initiative	Target Group(s)	Level of Implementation	Implementor(s)
USA	*Educational Testing Service (I-skills)*	• Population at large • General education	• National	• Educational Testing Service
	CEO Forum on Education and Technology	• General education	• Social partners • Non-profit	• International Society for Technology in Education maintains the School Technology Readiness (STaR) Chart for K-12 • American Association for Colleges of Teacher Education maintains the Teacher STaR Chart
	PEW Internet & American Life Project	• Population at large • Ethnic groups • Disadvantaged groups	• National • State	• PEW Research Center
	Partnership for 21st Century skills	• General education	• National • Social partners • Industry	• Partnership for 21st Century skills
	International Society for Technology in Education – Summit and Report (Davies et.al.)	• General education	• International/national	• International Society for Technology in Education
	Statistical indicators	• General education	• National	• National Academy of Engineering • Research council • Gamier and Pearson