

## Chapter 6

# ICT Demand by Households and Individuals

*This chapter describes the OECD model survey of ICT access and use by households and individuals. It also includes discussion of e-commerce and the social and economic impacts of ICT use by households and individuals.*

## Introduction

The other major WPIIS effort on the demand side has been the development of a model survey for measuring ICT access and use by households and individuals. The impetus for such work has been a strong policy interest in issues such as equality of access to ICT and the potential for ICT (and, in particular, the Internet) to significantly change society – in both positive and negative ways.

This chapter discusses the OECD model survey of ICT access and use by households and individuals, e-commerce activity undertaken by individuals, and social and economic impacts of ICT use by households and individuals.

## OECD model survey of ICT access and use by households and individuals<sup>1</sup>

In late 2002, the WPIIS finalised a model survey on ICT use in households and by individuals (OECD, 2002). The model survey was revised in 2005 to improve harmonisation with member country ICT use surveys and to reorient the surveys towards current areas of high policy relevance. At its 2010 meeting, WPIIS agreed to update the model survey of ICT access and use by households and individuals for the 2011 meeting. More information on the development of the model survey, as well as the model itself, can be found in Annex 6.A1.

The model survey is intended to provide guidance for the collection of statistics on:

- Household access to ICT, including broadband access to the Internet and barriers to Internet access.
- Use of ICT by adults (individuals aged 16-74 years) including whether ICT was used during the previous 12 months, how it was used (for instance, how the Internet was accessed), whether security precautions were employed, where ICT was used, and what activities it was used for. The 2005 revision included new and revised material on IT security, e-government, download and purchase of digitised products, mobile Internet access and mobile phone use.

Countries are encouraged to use the model as a core part of their survey development in this area of ICT statistics in order to improve the international comparability of information collected and compiled on this topic.

Discussion of topics included in the questionnaire can be found in this *Guide* as follows:

- Trust in the online environment (including IT security) – a special article has been included in Annex 5.A1. Annex 6.A1 considers the measurement challenges in this area.
- Digitised products – in Chapter 7 and Annex 6.A1.
- E-government – a special article can be found in Annex 5.A1.
- Mobile phones – discussed in Annex 6.A1.
- Use of mobile services for Internet access – discussed in Annex 6.A1.

## E-commerce

For individual members of households, e-commerce presents an alternative method of purchasing (and increasingly selling) goods and services for private use.

We saw in Chapter 5 that it is the method by which an order is placed or received, rather than the payment or channel of delivery, which determines whether a transaction is an e-commerce transaction. OECD member countries have endorsed a definition of e-commerce. See Table 5.2 in Chapter 5 for guidelines on interpretation of the e-commerce definition.

The statistical and policy interest for the household sector is in use of the Internet for such transactions, with particular interest in purchasing rather than selling transactions. Surveys of ICT use in households typically collect information on individual purchasing activity via the Internet, with details often including the nature of goods and services purchased, the value of those purchases, the value of online payments and/or barriers to purchasing over the Internet.

The major conceptual and collection issues relating to e-commerce are described in Chapter 5. While most are more relevant for businesses, questions relating to the ability of respondents to report purchases according to the definition of e-commerce and the small volume of e-commerce activity have implications for household surveys as well.

OECD countries vary in their collection efforts in this area. In particular, because of changes to Eurostat's model household survey (Eurostat, 2010),<sup>2</sup> fewer European countries are collecting the value of purchases over the Internet. The 2005 OECD model survey (in Annex 6.A1) has nominated value of purchases as a non-core question reflecting both the direction of Eurostat and the difficulty respondents have in recalling the value of purchases. In addition to purchasing activity, the model questionnaire asks individuals whether they have sold over the Internet, for example, using auction sites. It also asks about the types of products purchased over the Internet and barriers to Internet purchasing.

## The social and economic impacts of ICT use by households and individuals

In contrast to the strong interest in impacts of ICT use by businesses, there has been little work done on impacts of use by households and individuals. However, the availability of ICT has obviously changed – and will continue to change – the way people work (for instance, teleworking), how they access commercial and government services, and what they do with their leisure time (for instance, the substitution of the Internet for TV). These changes are having, and will continue to have, impacts on society and the economy.

In respect of social impacts of ICT use by households and individuals, the analytical work done has tended to be based on small-scale studies rather than more comprehensive exercises that use the type of official statistics we focus on in this *Guide*. However, it is clear that there are both negative and positive aspects to such use. For instance, on the negative side, consider the question of undesirable content accessible via the Internet and changes in the way people relate to each other (for example, the substitution of e-mail and SMS messages for personal contact). On the positive side, there are many advantages and conveniences offered by ICT in learning, communicating, accessing services and so on.

An area that has received significant attention is the question of the digital divide – simply defined as the gap between ICT “haves” and “have-nots”. However, this is not so

much an analysis of the impact of ICT use as an analysis of exclusion from its use. It is predicated on the assumption that ICT is, on balance, a positive phenomenon and that those without access to it are relatively disadvantaged.

Notwithstanding that most economic analysis of the impacts of ICT has focused on ICT use by firms, the use of ICT by households undoubtedly has impacts on economic performance.

- First, demand for ICT goods and services by households is an important component of overall demand, which has stimulated the growth of the ICT sector, and has helped to foster technological progress in ICT applications. ICT has also stimulated demand for products in sectors that rely heavily on ICT, for example, media and entertainment, leading to growth in those industries as well.
- Second, the wide diffusion of ICT across the economy and to most households may enable a critical mass without which firms may not be able to achieve the full benefits of switching to ICT, e.g. in the delivery of their products.
- Third, the diffusion of ICT to households may help in fostering basic abilities for ICT use as well as more sophisticated ICT skills, which can benefit companies that require experienced ICT users.
- Fourth, use of ICT at home may enable companies to achieve greater benefits from teleworking, which could enable companies to rationalise their working environment.
- Finally, increasing access to ICT by households can help reduce socio-economic exclusion, by providing access to information as well as more competitive prices.

As these topics have not received as much attention from economists as the economic impacts of ICT use by businesses, empirical literature is somewhat limited.

Work in the area of measurement of social impacts of ICT (as applied by, or applicable to, national statistical offices) is summarised in a paper prepared for the 2007 WPIIS meeting (OECD, 2007).

## Notes

1. A note on terminology: the *Guide* uses the terms “model survey” and “model questionnaire”. The latter refers specifically to the questionnaire provided as a model to participating countries. The former refers to the questionnaire plus associated information, such as recommendations on methodology, scope and classificatory variables.
2. Model questionnaire for the Community Survey on ICT Usage in Households and by Individuals, 2006. In addition, the 2007 and 2008 model questionnaires for the Community Survey do not address barriers to purchasing over the Internet. However, an extended module on e-commerce and trust was implemented as part of the 2009 model questionnaire.

## References

- Eurostat (2010), *Model ICT use questionnaires, years 2002-2010*, Eurostat, Luxembourg, [http://circa.europa.eu/Public/irc/dsis/emisannexes/library?l=/data\\_-\\_database/theme\\_3\\_-\\_popul/isoc/householdsindiv&vm=detailed&sb=Title](http://circa.europa.eu/Public/irc/dsis/emisannexes/library?l=/data_-_database/theme_3_-_popul/isoc/householdsindiv&vm=detailed&sb=Title).
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- OECD (2007), “Measuring the impacts of ICT using official statistics”, Working Party on Indicators for the Information Society, DSTI/ICCP/IIS(2007)1, OECD, Paris, <http://dx.doi.org/10.1787/230662252525>.

## ANNEX 6.A1

## OECD Model Survey of ICT Access and Use by Households and Individuals

### Introduction

This annex is based on a number of papers presented to the WPIIS and records of discussion at WPIIS meetings. The main sources are the paper presented to ICCP that proposed the first model survey for declassification; the (slightly) revised version of that paper (OECD, 2002), and papers leading up to the finalisation of the revision of the model survey in 2005.

As with the business questionnaire, OECD has benefited from the work of Eurostat, the statistical office of the European communities, and a number of member countries that have been prominent in this area of measurement. Many provided invaluable assistance to the lead country (Australia) in developing the 2002 model survey and to the OECD Secretariat in revising the model in 2005. At its 2010 meeting, WPIIS agreed to update the model survey of ICT access and use by households and individuals for the 2011 meeting.

### **History of the model survey's development**

At the April 2000 and 2001 meetings of the WPIIS, Australia presented a model survey for ICT use by households and individuals. Discussion at the WPIIS, Voorburg Group and Eurostat meetings and subsequent correspondence indicated a diversity of views on the content of such a model survey. The 2002 WPIIS meeting discussed major outstanding issues and reached broad consensus. Another round of discussion following that meeting and subsequent written comments led to a final proposal that was presented to WPIIS' Parent Committee ICCP for declassification (approval) in October 2002. Slight modifications were made the following year.

The 2002 proposal suggested that additional components of the questionnaire be added over time as technologies, usage practices and policy interests change. In discussing the proposal, the 2002 meeting agreed to review the inclusion of several items at the first review of the model survey. In particular:

- Additional modules on use of mobile phones and e-mails. Whilst seeing value in the suggested modules, the WPIIS agreed that consideration should be deferred until the first review of the approved model survey.
- Children's use of ICT. The WPIIS agreed to leave children's use of ICT out of the current proposal. It might be considered in the future, possibly in different types of survey vehicles, e.g. school surveys. It was pointed out that countries that wish to collect data in

respect of children's use of ICT are not constrained by the age limit of 16 recommended by the model survey. In order to achieve international comparability, those countries are asked to also produce output in respect of people aged 16 years and over.

- Internet purchases by location of supplier (international versus domestic transactions). Based on suggestions that the question posed difficulty for respondents, it was agreed to defer consideration of this question until the first review of the model survey.

The 2003 meeting considered these issues and agreed only that more development work should be undertaken on refining a set of mobile phone and e-mail questions for discussion in 2004. The meeting also agreed that more work should be done on expanding the existing items covering household interaction with government by electronic means.

To accommodate these changes, the 2003 meeting agreed that the questionnaire should be reviewed to remove lower priority questions (or reduce them to non-core status).

In response to the outcome of the 2003 meeting, a Secretariat proposal outlining a number of areas for revision was presented to the 2004 meeting. The proposal suggested a thorough review of the model survey to ensure that it continued to reflect current policy needs and priorities and was aligned, as far as possible, with country survey practices.

A detailed proposal, developed by the Secretariat in consultation with interested member countries, was presented to the 2005 meeting and subsequently revised based on comments made at, and following, the meeting.

The revised model was finalised in late 2005 and distributed as DSTI/ICCP/IIS(2005)3/FINAL (OECD, 2005).

### ***Development of the revised model of 2005***

In order to prioritise material to be included in the revised model survey, content was examined from both an output and an input perspective. Regarding output, reference was made to the OECD list of core e-commerce indicators, agreed at the 2000 WPIIS meeting, and data that OECD has been able to collect from member countries. A core list of ICT indicators proposed for use by non-OECD member countries (per the WSIS<sup>1</sup> meetings) was also consulted in order to ensure as many options as possible for future benchmarking across a greater number of countries.

Regarding input, survey material from a number of member countries was examined, including the Eurostat questionnaire for 2006 (Eurostat, 2010). Where a majority of country surveys had not incorporated an existing (2002) model survey question, then it was generally removed or revised.

New topics were considered based on known policy needs and experiences of member countries with questions about those topics. An important criterion applied at each stage was to try to minimise the number and complexity of the questions. This is in recognition of the high cost of collecting these data in terms of expense and respondent load.

Comment was sought on the 2004 proposal from all WPIIS delegates following the meeting. A number of countries and organisations responded. In January 2005, a revised questionnaire was sent out to countries and organisations that had responded earlier. Feedback from this round of consultation was incorporated and a detailed proposal was presented to the 2005 WPIIS meeting.<sup>2</sup>

The 2005 model survey consists of a number of elements that are described further below. They include: survey methodology; scope and coverage; classificatory variables;

particular statistical issues associated with household and individual ICT access and use measurement; comparison with Eurostat's model survey;<sup>3</sup> and a model questionnaire (including definitions of terms and metadata notes).<sup>4</sup>

## Survey methodology

### Introduction

Neither the 2005 nor the 2002 model surveys offered detailed advice on how to conduct or process household surveys. The aim is to convey the methodological points and conceptual issues that are most relevant to the collection of household and individual ICT access and use information.

Additionally, for most countries, there are established procedures in place for household surveys that collect ICT access and use data. Therefore no recommendations are made on the following aspects of collection methodology:

- For use of a particular type of sample frame, sampling methodology or sample size; these will vary according to country practices and the availability of information (for instance, administrative information on individuals).
- Whether collections should be mandatory or voluntary – both types of collections are used among OECD member countries; however, where collections are voluntary, non-response will tend to be higher and therefore the recommendations below regarding survey bias will be more relevant.
- How to process collected information, including editing, imputation and benchmarking of data; and
- A particular type of survey vehicle. There is a variety of survey vehicles used by member countries to collect data on household and individual ICT access and use. Most countries use existing household surveys (such as, labour force surveys or general purpose household surveys). At least two OECD countries use separate collections for household ICT access and individual ICT use data.

### Minimising sampling and non-sampling error

In general, countries should note that differences in survey methodologies can lead to inconsistencies in output. All countries should therefore aim to reduce sampling and non-sampling error (“bias”) as much as possible by:

- using well designed samples that are of sufficient size to produce reliable data (that is having low standard errors for the aggregates suggested in this paper);
- careful design and testing of questions and question sequences;
- intensive training and checking of interviewers, where they are used;
- reducing the non-response rate as far as possible; and
- minimising data entry, editing and other processing errors.

### Collection techniques

Most member countries use personal interview techniques for collecting data on household and individual access and use of ICT. Personal interview can be by face-to-face or by telephone and, for either method, interviewers may be assisted by computers (using, for instance, CAPI or CATI applications respectively). Face-to-face interviewing may be

better for some situations in that it potentially allows the interviewer to check the type of Internet connection or other technical details.

Telephone interviews should generally be avoided where it is not possible to include mobile phone only or unlisted subscribers.

It is also suggested that postal surveys generally not be used because they offer less opportunity for interaction with the respondent (for instance, to clarify technical issues) and because response rates are likely to be lower, thus leading to higher sampling error and possible non-response bias. However, it is acknowledged that postal surveys offer advantages such as cost and a simpler method of presenting list-based questions (of which there are several in the model questionnaire). They are likely to be most reliable when used in conjunction with other questionnaire-based approaches such as a drop-off/call-back (or post back) approach that may enable some interaction and improve the response rate.

### ***Statistical units, selection and weighting***

Both households and individuals are recommended as statistical units. Information should ideally be sought from a randomly selected adult (some-one aged between 16 and 74 years) who responds in respect of the household (Section A of the model questionnaire) and in respect of him/herself (Section B). Alternatively, more than one household member could provide individual information in Section B. Households, and individuals within households, should be selected in an unbiased manner.

Because the sample of households and individuals selected is unlikely to be perfectly representative of the whole population, it is important to weight responses according to an independent estimated distribution of the population.

### ***Survey frequency and reference period/date***

It is probably unrealistic to expect participating countries to conduct surveys more frequently than annually. For some participating countries, an annual collection will not be feasible, in which case it is important that those countries align their collection years as far as possible.

As some of the information collected is point-in-time data, it would be preferable to also have alignment of reference dates across participating countries. However, the dependence of many countries on existing survey vehicles probably makes this an unrealistic expectation.

## **Scope and coverage**

### ***Individuals***

The scope of individuals would normally be limited by age. The 2002 OECD model survey recommended that all individuals aged 16 years or over be included in the scope of the survey. However, many European countries have an age range of 16-74 years and therefore exclude individuals aged outside this range. In the 2005 revision, the lower age of 16 years was retained but an upper age limit of 74 years was introduced, giving a common individual age scope of 16-74 years.<sup>5</sup> This is consistent with Eurostat's recommendations and OECD data collection practices. Of course, individual countries can choose to collect data from individuals aged outside the 16-74 years range and are encouraged to do so (of particular policy interest for many countries is the use of ICT by those aged 75 and over).



Other scope or coverage limitations on individuals are likely to be relatively minor and could include things like limiting the survey to those living in private dwellings (therefore excluding individuals in institutions such as prisons and nursing homes and special dwellings such as hotels); excluding full-time members of the armed forces; and excluding non-residents and some foreign residents. Such limitations are likely to have a fairly small impact on estimates so no recommendations are made here.

### **Households**

It is recommended that household scope be consistent with that for individuals, therefore households where all members are outside the age scope, will themselves be out of scope. This is a change from the 2002 model where all households were in scope. However, many countries are constrained by use of existing survey vehicles and are not able to follow that guidance. A number of European countries, for instance, exclude households consisting only of members over 74 (or, less likely, under 16).

Many countries will also restrict household survey scope or coverage to those in private dwellings. For some countries, there could be other reasons for a more limited scope (or coverage) of the national survey. They include exclusion or undercoverage of particular households, for example those in remote or inaccessible areas.

For both households and individuals, it is important that countries advise of significant impact on survey estimates resulting from deviations from scope, or areas of poor coverage.

## **Classificatory variables**

The 2002 OECD model survey recommended inclusion of minimal information on a number of household and individual characteristics. A similar set of classificatory variables is included in the 2005 model survey, though many countries will decide to use extra variables and/or additional categories. Data for these variables will usually be collected as part of the survey (though note that questions have not been included in the model questionnaire). Of possible interest to those countries where a rural/urban divide exists is a geographical classification. However, such a variable is problematic from an international comparability viewpoint and has not been included in the model.

### **Household characteristics**

The 2002 OECD model had a *household size* (number of members) variable and a small *household composition* classification that identified several different household types (e.g. couple, one parent family, lone person). The *composition* variable in the 2002 model survey did not have an equivalent in the Eurostat model. Eurostat's current approach is to collect information on the total number of household members as well as the number of children under 16 in the household. The Eurostat approach enables tabulation of households by size and type (those with and without children under 16). For simplicity and improved comparability, it was adopted in the 2005 model, leading to household variables as follows:

- Household type (two-way classification: households with/without children under 16); and
- Household size (number of members including those outside the age scope).

The variable, *household income* is differently defined in the 2002 OECD and Eurostat model questionnaires. The 2002 OECD model specified annual gross household income

from all sources, while Eurostat defines the variable as average net monthly household income. Household income is not collected on all countries' household ICT access and use surveys and for this reason is an optional variable on the Eurostat model. Nevertheless, it is regarded as an important classificatory variable because of the strong correlation between household income and access to ICT. Regarding the conceptual basis of the *household income* variable, a quartile approach has been adopted by Eurostat from 2006. This approach entails either collecting income in ranges corresponding to quartiles (based on other survey data) or collecting income data in other ways and converting it to quartiles for output purposes.

Given that countries that collect household income as a classificatory variable use a variety of bases (monthly, annual, gross, net, etc.), the quartile approach allows better comparability. The revised OECD model therefore does not make any recommendation on the conceptual basis of household income but asks countries that collect it to either collect or output household income on a quartile basis for the purposes of classifying household ICT data.

### **Individual characteristics**

Age is a strong determinant of ICT use so a common age cut-off is important. Consistent with the age scope, an age range of 16-74 is recommended. It is also recommended that the following sub-ranges be used as output categories of the age variable: 16 to 24; 25 to 34; 35 to 44; 45 to 54; 55 to 64 and 65 to 74. These are the ranges used by OECD and Eurostat for their model surveys but they differ from the 2002 OECD model that had coarser categories.

The 2002 model included a variable, *highest education level received*, with four categories: primary, secondary, post-secondary (not tertiary) and tertiary. For consistency with Eurostat, the classification has been reduced, giving a three-way classification as follows: *No formal education, primary or lower secondary* (ISCED 0, 1, 2); *Upper secondary and post-secondary non-tertiary* (ISCED 3, 4) and *Tertiary* (ISCED 5, 6).<sup>6</sup>

In respect of employment status, for consistency with Eurostat, the first two categories in the 2002 model (full-time employee and part-time employee) have been combined giving the following four-way classification: *paid employee*; *self-employed*;<sup>7</sup> *unemployed* and *not in the labour force*.<sup>8, 9</sup>

The other two individual characteristics in the 2002 model were *Gender* and *Occupation*. They are retained in the revised model. In respect of *Occupation*, countries are asked to use ISCO88 major groups where possible (as in the 2002 model).

In terms of output, many countries may wish to cross-classify some of these variables. This can produce information that is very useful for analytical purposes. However, it should be noted that cross-classified output is often more detailed and therefore usually requires higher sample sizes to support reliable estimates.

## **Particular statistical issues associated with household/individual ICT access and use measurement**

### **Households versus individuals as statistical units**

A key issue concerns the appropriate statistical unit for measurement. In general, the household unit is used to elicit information about facilities in place in the household

(for example, whether there is a computer or Internet access). The individual unit is used to provide information on use of these facilities (both in and away from the home) and, most importantly, the intensity of that use (for instance, frequency and range of activities undertaken). Debate continues among OECD countries on the preferable unit, though at this stage most use both.

### **Recall period**

Amongst OECD countries, this has been a much-debated issue, though mainly in the context of the value of Internet purchases by individuals.

The 2002 OECD model questionnaire used a 12-month recall period for all questions except for the value of Internet purchases. The 2006, 2007 and 2008 Eurostat model questionnaires ask questions in respect of both 12 months and three months (for instance, individual use of a computer and the Internet, and whether the individual has purchased products over the Internet) but ask others (*e.g.* location and frequency of use, and activities undertaken) in respect of the last three months.

The 2005 OECD model retained a 12-month recall period for individual use questions but includes new filter questions probing the time period when activities occurred (use of a computer, the Internet and purchasing). This allows tabulation of those aggregates for both three- and 12-month time periods. An additional point regarding recall period, is that for EU and probably most other OECD countries, in respect of main aggregates, it makes little practical difference whether a three- or 12-month period is used (as very few individuals are infrequent users). The most obvious exception to this is the value of Internet purchases (see discussion below).

The advantages of a 12-month recall period include avoidance of seasonal effects and better capture of less frequent activities such as selling on line, dealing with government organisations or searching for health information.

In respect of the value of Internet purchases, countries should select a recall period for Internet purchases that would enable calculation of 12 months' value. For instance, countries that collect monthly information should collect information in respect of the last month; countries collecting quarterly data, in respect of the last quarter, etc. Whichever method is chosen, it should be able to deliver a reasonably unbiased estimate of the value of Internet purchases in respect of the 12-month reference period.

### **Trust in the online environment**

Several questions (and parts of questions) in the model questionnaire deal with the topic of trust in the online environment. The questions concern the issue of IT security (Questions 8, 15 and 16) and privacy, security or trust as barriers (Questions 5 and 23).

WPIIS comments were sought on the feasibility of the new Questions 15 and 16, and on including several other trust topics as follows:

- Whether households/individuals who use anti-virus software download virus definitions and, if so, whether this is done automatically, daily, weekly, etc.
- Whether households/individuals who use the Internet apply patches or software updates that are critical to the security of their computer, and if so, whether this is done automatically, daily, weekly, etc.

- Whether individuals regularly back up their important files, *e.g.* documents, spreadsheets, e-mails, digital photos.
- Which sources individuals use to find information about IT security issues (*e.g.* newspapers, TV, vendor websites, government websites, etc.).

General feedback from Eurostat and others is that it is problematic asking individuals about IT security in terms of: the incidents they have encountered, what action they take to protect themselves and whether the computer they use at home is protected. Feedback on the inclusion of the new topics outlined above was couched in similar terms, that is, respondents are unlikely to be able to respond to such technical questions. The only exception appears to be whether individuals regularly back up important files. This is a question successfully asked by Finland and a new non-core question (Question 8) on this topic has consequently been included on the model questionnaire.

While the general feedback on IT security questions was sceptical, they are of such policy importance that they have been retained as non-core questions. One change made as a result of feedback is to limit Questions 8 (on data backup) and 15 (on incidents experienced) to home use only as this is the environment about which users are likely to know most and over which they have most control (for instance, they may have no role in backing up material at work, nor knowledge about attacks on the computer they use at school).

More information on this topic can be found in Annex 5.A1.

### **Internet access using mobile services**

The questionnaire includes a question (Question 11) on individual mobile access to the Internet. The question focuses on mobile services unlike a similar question on the Eurostat 2006 questionnaire that asks about devices used for mobile access. The OECD approach is thought to be better aligned with policy interests in this area and is slightly simpler. The question is non-core because it is both untested and possibly technically complex for some respondents.

### **Digitised products**

The Internet activities and purchasing items questions (19 and 21 respectively) contain several new categories designed to probe individuals' interest in new types of products that the Internet has made possible. These so-called "digitised products" are those that are able to be digitally delivered via the Internet. They are challenging statistically as they are difficult to describe in a way that is technically correct yet understandable to respondents.

### **The value of Internet purchases**

The 2002 question on the value of Internet purchases has been included in the revised questionnaire with few changes (Question 22). However, it is a conceptually complex question and has been made non-core because of difficulty respondents have answering it accurately. Importantly, Eurostat has dropped this question from its model questionnaire (from 2005).

### **Mobile phones**

In OECD countries, information on mobile phones has conventionally been collected in respect of the household (therefore whether the household, through one or more of its

members, has access to a mobile phone). However, there is increasing recognition that it is more important to examine individual use of mobile phones, especially since they are typically owned and/or used by an individual rather than a group of people. The model questionnaire includes two questions (24 and 25) on individual mobile phone use. It should be noted that the questions are relatively untested in OECD countries and therefore might change as experience increases. They have been denoted non-core for this reason.

### **E-government**

Issues associated with measurement of e-government (Question 19) are described in Annex 5.A1.

## **Comparison with Eurostat's model survey**

European Union countries comprise about two thirds of OECD countries. Additionally, some OECD countries that are not EU members use the Eurostat model (Eurostat, 2010). It is therefore important to try to align the two model questionnaires (and associated standards) as far as possible, while taking into account the interests of the OECD countries that do not carry out Eurostat's model survey. The revised model questionnaire is reasonably consistent with Eurostat's 2006 Household questionnaire – where they overlap. However, Eurostat asks questions about a number of topics that are not on the OECD model questionnaire and (to a lesser extent) *vice versa*. Other differences include instances where the questionnaires differ because response categories are split in one questionnaire and not in the other. Such differences may be able to be dealt with at the output stage.

For differences in the recall periods used, see *Recall period* above.

In respect of scope and classificatory variables, there were a number of differences between the 2002 OECD and Eurostat models most of which have now been removed, leaving the 2005 OECD and 2006 Eurostat models very similar.

## **About the model questionnaire**

### **Core and non-core questions**

Questions denoted “non-core” are considered to be **either** relatively untested and therefore somewhat experimental, or difficult to collect. The term “non-core” is **not** used to indicate a lower priority. In the model questionnaire, a *non-core* question is indicated by **NC** under the question number.

### **Format of the model questionnaire**

The OECD model questionnaire is not an operational questionnaire that can be used directly in countries' household surveys. This is because countries conduct household ICT access and use surveys in different ways, each requiring their own types of survey instruments. For instance, a questionnaire that is self-enumerated will look quite different from one designed for a telephone survey, which in turn will differ from a questionnaire that is used for face-to-face interviewing. Because the model questionnaire is not an operational questionnaire, it does not show:

- questions that establish the values of classificatory variables (household and individual characteristics);
- filter questions that have no ICT data content (*e.g.* whether the respondent is an employee);

- interview instructions (though it does indicate question populations and logic); and
- how questions are asked (this will vary depending on the collection methodology used, for instance, personal interviewers might use prompt cards for a number of the “list” questions whereas telephone interviewers might use a running prompt i.e. ask each response item as a yes/no question).

***Adaptation of the model questionnaire***

It is not expected that the structure, question wording or definitions that comprise the model questionnaire would be used unchanged (or literally translated) in national surveys. However, it is important for comparability purposes that:

- where questions are used, their meanings are preserved; and
- the logic is preserved to the extent that the same (or very similar) populations of households or individuals are asked each question.

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005)

| Section A: Household access to information and communication technology |   | Logic <sup>1</sup> Definitions and notes |                          |
|---|---|--|--------------------------|
|   |   | No                                       | Yes                      |
| 1.  | <b>Does any member of this household/ do you<sup>2</sup> have access to a computer at home regardless of whether it is used?</b> <sup>3</sup><br><i>Population: all in-scope households</i>   | <input type="checkbox"/>                 | <input type="checkbox"/> |
| 2.  | <b>Does any member of this household/ do you<sup>2</sup> have access to the Internet at home regardless of whether it is used?</b> <sup>4</sup><br><i>Population: all in-scope households</i> | <input type="checkbox"/>                 | <input type="checkbox"/> |
| 3.  | <b>On which devices do members of this household access the Internet at home?</b> <sup>5</sup><br><i>Population: in-scope households with access to the Internet at home</i>                  | Multiple responses allowed               |                          |
|   | Through a computer <sup>6</sup>   | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Through an Internet-enabled mobile phone  | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Through a games machine with Internet connection  | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Through an Internet-enabled television set  | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Using any other means (please specify).....   | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Do not know   | <input type="checkbox"/>                 | <input type="checkbox"/> |
| 4.  | <b>What types of Internet access services are used for Internet access at home?</b> <sup>7</sup><br><i>Population: in-scope households with access to the Internet at home</i>                | Multiple responses allowed               |                          |
|   | Analog modem (dial-up via standard phone line)  | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | ISDN (Integrated Services Digital Network)  | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | DSL (ADSL, SDSL, VDSL, etc.) <sup>8</sup>   | <input type="checkbox"/>                 | <input type="checkbox"/> |
|   | Cable modem <sup>8</sup>  | <input type="checkbox"/>                 | <input type="checkbox"/> |

A computer includes: a desktop, portable or handheld computer (e.g. a personal digital assistant). A computer does not include other equipment with some embedded computing functions, such as cell phones, VCRs or TV sets.

The Internet is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files. Internet access may be via a computer, Internet-enabled mobile phone or TV, games machine, etc.

The Internet is as defined in Question 2.

A desktop, portable or handheld computer.

For instance WAP (Wireless Application Protocol), GPRS (General Packet Radio Service), I-mode or UMTS (Universal Mobile Telecommunications System).

Also known as a games console.

For instance, digital TV or TV with a set-top box.

An analog modem converts a digital signal into analog for transmission by traditional (copper) telephone lines. It also converts analog transmissions back to digital.

ISDN is a telecommunication service that turns a traditional (copper) telephone line into a higher speed digital link. It should be regarded as narrowband.

Digital subscriber line; it is a high-bandwidth, local loop technology carrying data at high speeds over traditional (copper) telephone lines.

A modem which uses cable TV lines for connecting to the Internet.

Table 6.A.1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section A: Household access to information and communication technology  |                          | Logic <sup>1</sup>   | Definitions and notes   |                          |
|--|--------------------------|--|---|--------------------------|
| Other narrowband <sup>9</sup>  |                          | <input type="checkbox"/>   | Including most mobile phone access (e.g. WAP, GPRS, i-mode) and other forms of access with an advertised download speed of less than 256 kbps (kilobits per second).<br>Including optic fibre cable, some mobile phone access (e.g. UMTS, EDGE), power line, satellite, fixed wireless, with an advertised download speed of greater than or equal to 256 kbps. |                          |
| Other broadband <sup>8, 9</sup>  |                          | <input type="checkbox"/>   |   |                          |
| Do not know  |                          | <input type="checkbox"/>   |   |                          |
| <b>Go to 6</b>   |                          |  |   |                          |
| <b>5. What are ALL the reasons for members of this household not having access to the Internet at home?<sup>10</sup></b> |                          |  | Note that not having a computer is not a valid response.  |                          |
| <i>Population: in-scope households without access to the Internet at home (whether or not they have a computer)</i>      |                          |  |   |                          |
| Multiple responses allowed   |                          |  |   |                          |
| Not interested   | <input type="checkbox"/> | For instance, concern that children will access inappropriate sites.<br>For example, household members are able to use the Internet at work. |   |                          |
| Costs are too high   | <input type="checkbox"/> |  |   |                          |
| Lack of confidence, knowledge or skills  | <input type="checkbox"/> |  |   |                          |
| Concern that content is harmful  | <input type="checkbox"/> |  |   |                          |
| Have access to Internet elsewhere  | <input type="checkbox"/> |  |   |                          |
| Security concerns, for example, concerns about viruses   | <input type="checkbox"/> |  |   |                          |
| Privacy concerns, for example, concerns about abuse of personal information  | <input type="checkbox"/> |  |   |                          |
| Other (please specify).....  | <input type="checkbox"/> |  |   |                          |
|  |                          |  |   | <input type="checkbox"/> |
|  |                          |  |   | <input type="checkbox"/> |
| <b>6. When did you most recently use a computer?<sup>11</sup></b>  |                          |  | From any location. A computer is defined in Question 1.   |                          |
| <i>Population: all in-scope individuals</i>  |                          |  |   |                          |
| Within the last three months   |                          | <input type="checkbox"/>   |   |                          |
| Between three months and a year ago <sup>12</sup>  |                          | <input type="checkbox"/>   |   |                          |



Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology  |  | Logic <sup>1</sup>       | Definitions and notes  |
|--|--|--------------------------|--|
|  | More than a year ago   | <input type="checkbox"/> | <b>Go to 9</b>   |
|  | Never used a computer  | <input type="checkbox"/> | <b>Go to 9</b>   |
| <b>7. In the last 12 months, did you use a computer at home?</b>   | Population: all in-scope individuals who used a computer in the last 12 months <sup>13</sup> | <input type="checkbox"/> | <b>No Go to 9</b>  |
| <b>NC<sup>14</sup></b>   |  | <input type="checkbox"/> | <b>Yes</b>   |
| <b>8. When using a computer at home in the last 12 months, how frequently did you back up files (such as documents, spreadsheets or digital photographs) which you created and kept on the computer?</b> <sup>15</sup> | Population: all in-scope individuals who used a computer at home in the last 12 months       | <input type="checkbox"/> | For example, by putting them onto a CD, memory stick or external hard drive, or storing them on websites (such as those offering online storage for photographs or other files). Includes files created elsewhere (for instance, on a handheld computer or digital camera) and transferred to a computer used at home. |
|  | Always or almost always  | <input type="checkbox"/> | That is, all or most files created by the individual are backed up – either individually or via a periodic backup of new (or all) files.   |
|  | Sometimes  | <input type="checkbox"/> |  |
|  | Never or hardly ever   | <input type="checkbox"/> |  |
|  | Not applicable – I have not created files which I kept on a computer used at home            | <input type="checkbox"/> |  |
| <b>9. When did you most recently use the Internet?</b> <sup>11</sup>   | Population: all in-scope individuals   | <input type="checkbox"/> | From any location and access device. The Internet is defined in Question 2.  |
|  | Within the last three months   | <input type="checkbox"/> |  |
|  | Between three months and a year ago <sup>12</sup>  | <input type="checkbox"/> | <b>Go to 11</b>  |
|  | More than a year ago   | <input type="checkbox"/> | <b>Go to 24</b>  |
|  | Never used the Internet  | <input type="checkbox"/> | <b>Go to 24</b>  |
| <b>10. How often did you typically use the Internet during the last 12 months?</b> <sup>16</sup>   | Population: all in-scope individuals who used the Internet within the last 12 months         | <input type="checkbox"/> | From any location.   |
|  | At least once a day  | <input type="checkbox"/> | If using the Internet from work, this category refers to at least once each working day.   |
|  | At least once a week but not every day   | <input type="checkbox"/> |  |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology  | Logic <sup>1</sup>                                   | Definitions and notes   |
|--|--|---|
| At least once a month but not every week<br>Less than once a month   | <input type="checkbox"/><br><input type="checkbox"/> |   |
| <b>11. In the last 12 months, did you connect to the Internet using any of the following methods of mobile access?</b> <sup>17</sup> |  |   |
| <b>NC</b> <i>Population: all in-scope individuals who used the Internet in the last 12 months</i>                                    |  |   |
| Multiple responses allowed   |  |   |
| Via a WAP, GPRS or i-mode mobile cellular network  | <input type="checkbox"/>                             | Connection is typically via an Internet enabled mobile phone or another device such as a laptop computer or handheld device. WAP is Wireless Application Protocol, GPRS is General Packet Radio Service.  |
| Via a UMTS (3G) mobile cellular network  | <input type="checkbox"/>                             | Connection is via an Internet enabled mobile phone or another device such as a laptop computer or handheld device. UMTS is a 3G mobile technology that will deliver information at speeds up to 2 Mbits/sec.  |
| Via a wireless connection, such as a "hotspot", WiFi or Wimax, away from home  | <input type="checkbox"/>                             | Characterised by its local nature. Coverage would generally not be continuous across a very wide area such as a country. Connection is typically by a laptop computer or handheld device such as a PDA or smartphone. Excludes use of a wireless network at home. |
| <b>12. In the last 12 months, did you use the Internet at home?</b>  | <input type="checkbox"/>                             | <b>No</b> <b>Go to 17</b>   |
| <i>Population: all in-scope individuals who used the Internet in the last 12 months</i> <sup>13</sup>                                | <input type="checkbox"/>                             | <b>Yes</b>  |
| <b>13. How often did you typically use the Internet at home during the last 12 months?</b> <sup>16</sup>                             |  |   |
| <i>Population: all in-scope individuals who used the Internet at home in the last 12 months</i>                                      |  |   |
| At least once a day  | <input type="checkbox"/>                             |   |
| At least once a week but not every day   | <input type="checkbox"/>                             |   |
| At least once a month but not every week   | <input type="checkbox"/>                             |   |
| Less than once a month   | <input type="checkbox"/>                             |   |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology |  | Logic <sup>1</sup>                                       | Definitions and notes  |
|---|--|--|--|
| 14.   | Did you use a computer to access the Internet at home in the last 12 months? <sup>18</sup>   | No <input type="checkbox"/> Yes <input type="checkbox"/> | Go to 17   |
| NC  | <i>Population: all in-scope individuals who used the Internet at home and who used a computer at home in the last 12 months</i>  |  |  |
| 15.   | When using a computer to access the Internet at home in the last 12 months, have you experienced an attack by a virus or similar (for example, a Trojan horse or worm) which has resulted in loss of data or time, or damage to software? <sup>19</sup>  | No <input type="checkbox"/> Yes <input type="checkbox"/> | Don't know <input type="checkbox"/>  |
| NC  | <i>Population: all in-scope individuals who used a computer to access the Internet at home in the last 12 months</i>   |  | Excluding attacks which were successfully prevented by security measures in place. A virus is a self-replicating, malicious program which attaches itself to a host program. A Trojan horse is a program that performs like a real program a user may wish to run, but also performs unauthorised actions. A worm is a malicious program that self-replicates across networks. |
| 16.   | Was the computer you (mainly) used to access the Internet at home protected by: <sup>20</sup>  | No <input type="checkbox"/> Yes <input type="checkbox"/> | Don't know <input type="checkbox"/>  |
| NC  | <i>Population: all in-scope individuals who used a computer to access the Internet at home in the last 12 months</i>   |  |  |
|   | Virus checking or protection software?   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | A firewall?  | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | Anti-spyware software?   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
| 17.   | Did you use the Internet at places other than home in the last 12 months using a fixed access device? <sup>21</sup>  | No <input type="checkbox"/> Yes <input type="checkbox"/> | Go to 19   |
|   | <i>Population: all in-scope individuals who used the Internet in the last 12 months</i>  |  |  |
|   | Virus checking or protection software?   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | A firewall?  | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | Anti-spyware software?   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | Software which detects and responds to malicious programs such as viruses, Trojan horses and worms.  | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | Software or hardware that controls access into and out of a network or a computer.   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | Software which detects and removes spyware from a computer system (spyware is tracking software which gathers information without the user's knowledge).   | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
|   | A fixed access device is associated with the place where the Internet was used, for instance, a computer at work or at school. It includes a portable computer which is usually located in a particular place (for instance, work). It excludes devices such as portable computers or mobile phones used in conjunction with mobile access services as defined in Question 11. | <input type="checkbox"/>                                 | <input type="checkbox"/>   |
| 18.   | At which of these other places did you use the Internet in the last 12 months? <sup>22</sup>   | Multiple responses allowed                               |  |
|   | <i>Population: all in-scope individuals who used the Internet at places other than home, using a fixed access device, in the last 12 months</i>  |  |  |
|   | Work (other than home)   | <input type="checkbox"/>                                 |  |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology   | Logic <sup>1</sup>   | Definitions and notes   |
|---|--|---|
| Place of education<br>At another person's home<br>Community Internet access facility <sup>23</sup><br>Commercial Internet access facility <sup>23</sup><br>Other places (please specify)..... | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> | For instance, home of a friend, neighbour or relative.<br>Includes access at community facilities such as public libraries, publicly provided Internet kiosks or government agencies; access is typically free or low cost.<br>Includes access at Internet or cyber cafés, hotels or airports; even though the venue is commercial, the cost is not necessarily at full market price. |
| <b>19. For which of the following activities did you use the Internet for private purposes in the last 12 months?</b> <sup>24</sup>   |  | For private use from any location (private means not as part of one's current job).   |
| <i>Population: all in-scope individuals who used the Internet in the last 12 months</i>   |  |   |
| Multiple responses allowed  |  |   |
| <b>Getting information</b>  | <input type="checkbox"/>   |   |
| About goods or services   | <input type="checkbox"/>   |   |
| About job opportunities   | <input type="checkbox"/>   |   |
| Related to health or health services  | <input type="checkbox"/>   | Covers injury, disease, nutrition and improving health generally.   |
| From government organisations (e.g. from websites or via e-mail) <sup>25</sup>  | <input type="checkbox"/>   |   |
| Other information or general web browsing   | <input type="checkbox"/>   |   |
| <b>Communicating</b>  | <input type="checkbox"/>   |   |
| Sending or receiving e-mails  | <input type="checkbox"/>   |   |
| Telephoning over the Internet   | <input type="checkbox"/>   |   |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology  | Logic <sup>1</sup> | Definitions and notes   |
|--|--------------------|---|
| Other communication (e.g. chat rooms/sites, message boards, instant messaging, web logs)                             |                    | Web logs are also known as "blogs".   |
| <b>Selling goods or services (e.g. through auction sites)<sup>26</sup></b>   |                    |   |
| <b>Internet banking</b>  |                    |   |
| <b>Applying for jobs</b>   |                    |   |
| <b>Formal education or training activities</b>   |                    | For instance, related to school or university courses, formal online courses.   |
| <b>Dealing with government organisations<sup>25</sup></b>  |                    | Government organisations are defined by the SNA93 and include government organisations at local, regional and national level.   |
| Downloading or requesting government forms   |                    | Includes downloading from websites or e-mailing requests for forms; includes taxation forms, claims, applications for permits, etc.   |
| Completing forms on line or sending completed forms  |                    | Includes online completion and submission of forms (e.g. web forms) and sending completed forms, for instance, by e-mail; includes tax forms, claims, applications for permits, etc.      |
| Making online payments   |                    | Includes payment of fees, payments for purchases, taxation remittances, etc. Online payments to government organisations may be made via an intermediary, for instance, a bank's website. |
| <b>Leisure activities</b>  |                    |   |
| Downloading or listening to online music   |                    | Includes file sharing and streaming from subscription services. Excludes listening to Web radio.  |
| Playing or downloading computer or video games   |                    | Includes file sharing games and playing games on line.  |
| Downloading or watching movies, short films or images  |                    | Includes file sharing. Excludes watching web television but includes watching downloaded TV programmes.   |
| Listening to web radio or watching web television  |                    | Includes podcasts of radio programmes.  |
| Reading or downloading electronic books, newspapers or magazines   |                    | Includes accessing web news sites.  |
| <b>Downloading software, patches or upgrades</b>   |                    | Includes downloading computer software, software patches (e.g. for operating systems) and upgrades; excludes software for computer and video games.                                       |
| <b>20. When did you most recently buy or order goods or services for private use over the internet?<sup>11</sup></b> |                    | From any location; it refers to purchase orders placed via the internet whether or not payment was made on line. Orders which were cancelled or not completed are excluded.               |
| <i>Population: all in-scope individuals who used the Internet in the last 12 months</i>                              |                    |   |
| Within the last three months   |                    |   |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology   | Logic <sup>1</sup> | Definitions and notes  |
|---|--------------------|--|
| Between three months and a year ago   |                    |  |
| More than a year ago  |                    | Go to 23   |
| Never bought or ordered goods or services over the Internet   |                    | Go to 23   |
| <b>21. What types of goods or services did you buy or order over the Internet for private use in the last 12 months?</b> <sup>27</sup>      |                    |  |
| <i>Population: all in-scope individuals who bought or ordered goods or services for private use over the Internet in the last 12 months</i> |                    |  |
| Multiple responses allowed  |                    |  |
| Books, magazines or newspapers which are <i>digitally delivered</i>   |                    | Downloaded from the Internet.  |
| Books, magazines or newspapers which are <i>physically delivered</i>  |                    | Generally delivered by post or delivery service.   |
| Clothing, footwear, sporting goods or accessories   |                    |  |
| Computer equipment or parts (including peripheral equipment)  |                    | Computer equipment includes packages where some software (such as an operating system) is included.  |
| Computer or video games which are <i>digitally delivered</i>  |                    | Downloaded from the Internet or played on line.  |
| Computer or video games which are <i>physically delivered</i>   |                    | For example, as CDs.   |
| Computer software (including patches and upgrades but excluding computer games) which is <i>digitally delivered</i>                         |                    | Downloaded from the Internet.  |
| Computer software (including patches and upgrades but excluding computer games) which is <i>physically delivered</i>                        |                    | For example, as CDs.   |
| Financial products (including shares and insurance)   |                    | The interest is in the purchase of the service rather than the investment value of the product. Include only where there is a service cost such as brokerage or commission.  |
| Food, groceries, alcohol or tobacco   |                    |  |
| Information technology and telecommunications services (excluding software)   |                    | Includes subscription to, or renewal of, ICT services such as: Internet access, pay TV, phone services; includes purchase of credit for Internet access or mobile phone use. |
| Movies, short films or images which are <i>digitally delivered</i>  |                    | Downloaded from the Internet e.g. as AVI, MOV, MPEG files.   |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology  | Logic <sup>1</sup>       | Definitions and notes  |
|--|--------------------------|--|
| Movies, short films or images which are <i>physically delivered</i>  | <input type="checkbox"/> | For example, as DVDs.  |
| Music products which are <i>digitally delivered</i>  | <input type="checkbox"/> | Downloaded from the Internet e.g. as MP3, WMA files or streamed from subscription services.  |
| Music products which are <i>physically delivered</i>   | <input type="checkbox"/> | For example, as CDs.   |
| Photographic, telecommunications or optical equipment  | <input type="checkbox"/> | Includes photographic equipment and accessories; telecommunications equipment such as fixed, cordless, mobile phones or fax machines; optical equipment such as binoculars.                      |
| Tickets or bookings for entertainment events (sports, theatre, concerts, etc.)   | <input type="checkbox"/> | Excludes travel products.  |
| Travel products (tickets, accommodation, vehicle hire, etc.)   | <input type="checkbox"/> |  |
| Other: <sup>28</sup> (please specify.....)   | <input type="checkbox"/> |  |
| <b>22. What was the TOTAL value of goods and services you bought or ordered for private use over the internet in the last &lt;period&gt;?<sup>29</sup></b>                                   | <input type="checkbox"/> | In national currency units. Includes the value of orders placed via the Internet whether or not payment was made on line. It excludes the value of orders which were cancelled or not completed  |
| <b>NC</b> Population: all in-scope individuals who bought or ordered goods or services for private use over the Internet in the last 12 months   | <input type="checkbox"/> | <b>Go to 24</b> and the value of capital items such as investment products, shares and loans. It includes financial services charges such as Internet brokers' fees or Internet banking charges. |
| <b>23. What were ALL the reasons for not buying or ordering goods or services for private use over the internet in the last 12 months?<sup>30</sup></b>                                      | <input type="checkbox"/> |  |
| Population: all in-scope individuals who used the Internet in the last 12 months, but who did <i>not</i> buy or order goods or services for private use over the Internet during that period | <input type="checkbox"/> |  |
|  |                          | Multiple responses allowed   |
| Not interested   | <input type="checkbox"/> |  |
| Prefer to shop in person or deal personally with a service provider  | <input type="checkbox"/> | Prefer to shop in person or deal personally with a service provider  |
| Security concerns, for example, worried about giving debit or credit card details over the Internet  | <input type="checkbox"/> |  |
| Privacy concerns, for example, worried about giving personal details over the Internet   | <input type="checkbox"/> |  |
| Trust concerns, for example, worried about warranties, receiving goods or services, or returning goods   | <input type="checkbox"/> |  |
| Lack of confidence, knowledge or skills  | <input type="checkbox"/> |  |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology |  | Logic <sup>1</sup>       | Definitions and notes   |
|---|--|--------------------------|---|
|   | Speed of connection is too slow<br>Other (please specify).....   | <input type="checkbox"/> |   |
| <b>24.</b>  | Did you have <i>personal use</i> of a mobile phone during some or all of the last 12 months? <sup>15</sup>               | <input type="checkbox"/> | <b>No</b> Go to end   |
| <b>NC</b>   | <i>Population: all in-scope individuals</i>  | <input type="checkbox"/> | The phone need not be owned or paid for by the person but should be reasonably available through work or family, etc. Excludes occasional use, for instance, borrowing a mobile phone to make a call. |
| <b>25.</b>  | For which of the following activities did you use a mobile phone in the last 12 months? <sup>15</sup>                    | <input type="checkbox"/> | <b>Yes</b>  |
| <b>NC</b>   | <i>Population: all in-scope individuals with personal use of a mobile phone during some or all of the last 12 months</i> | <input type="checkbox"/> |   |
|   | Multiple responses allowed   |                          |   |
|   | Accessing the Internet, for example, browse WAP pages or use i-mode services   | <input type="checkbox"/> |   |
|   | Sending or receiving SMS (short text messages)   | <input type="checkbox"/> |   |
|   | Sending or receiving photographs   | <input type="checkbox"/> | Free or charged.  |
|   | Downloading music, ringtones, games or video   | <input type="checkbox"/> | Where the payment appears in the phone bill (or is deducted from phone credit).   |
|   | Paying for goods or services   | <input type="checkbox"/> |   |

## Notes to the questions

- Where there is no "Go to" direction, the respondent is asked the next question.
- The term "do you" is included to cover single person households. It does not refer to individual activities.
- This question refers to access rather than use. The equipment should be in working order or expected to be returned to working order soon.
- This question refers to access rather than use. The connection should be functional (that is, any equipment or software needed should be in working order) or expected to be returned to working order soon. Note that access is not assumed to be only via a computer. It may also be by mobile phone, games machine, etc. Therefore this question is asked even if there is a "No" response to Question 1.
- Possible country variations are: remove categories where items are not feasible; add or split categories according to technologies available and country data requirements. Care should be taken when adding or splitting categories that statistical bias is not introduced. This could occur if the provision of alternative categories affects response thereby leading to loss of comparability with other countries' data.
- Three types of computers (desktop, portable and handheld) are combined into one category based on information from EC countries that the incidence of use of portable and handheld computers to access the internet from home is very low. Where statistically feasible, countries may split the category.
- The main aim of this question is to enable estimation of the proportion of households with broadband access. Possible country variations are: remove categories where items are not feasible, add or split categories according to technologies available and country data requirements (though note comments about bias above). Note also the comments against the categories "Other narrowband" and "Other broadband".
- Based on Finnish household data for 2004, the broadband categories have not been split by speed (unlike the same question on the revised OECD business model questionnaire). Finland reported a very high "don't know" response for such questions.



Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

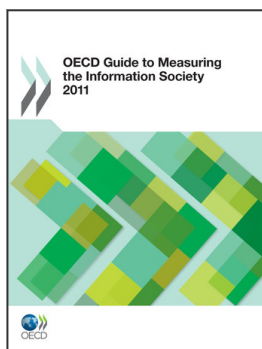
| Section B: Individual (adult) use of information and communication technology | Logic <sup>1</sup> Definitions and notes  |
|---|---|
| 9.  | This "Other" item would not appear on questionnaires – countries should add appropriate category/ies based on services available.   |
| 10.   | Changes have been made to categories to improve consistency with Eurostat and items have been ordered based on Eurostat data for 2004. Possible country variations are to add or split categories according to country data requirements through note comments about bias above. It is possible to ask barriers questions in a variety of ways. They include asking for all reasons, asking respondents to rate the importance of each reason or asking for the main plus a secondary reason, or the main reason only. The approach taken here is probably the least burdensome presentation and is suitable for telephone interviewing. Where countries use a different method of collecting these data, for the purposes of international comparability, data should be tabulated to show the main reason most commonly reported or the reason most commonly selected as the most important and so on. Note that responses to barriers questions tend to be fairly stable over time therefore they may be rotated in and out of an annual collection. |
| 11.   | New filter question. This formulation is consistent with Eurostat's model and would provide somewhat more information than a simple Yes/No filter question. However, countries could use a Yes/No filter question if they preferred (for countries with a low incidence of infrequent (3-12 months) use, the advantages of using the split question are much less).   |
| 12.   | Based on Eurostat data, the incidence of this item is likely to be low for most countries (average for EU: 3% of respondents in 2004 for computer use and 2% for Internet use).   |
| 13.   | As it is possible that households could have had computer access /Internet access at some time in the previous 12 months, but not at the time of the survey, the population for Questions 7 and 12 (respectively) has not been restricted to those who had such access at home.   |
| 14.   | NC denotes a non-core question, that is, a question which is either relatively untested and therefore somewhat experimental, or may be difficult to collect.  |
| 15.   | New question nominated as non-core because relatively untested.   |
| 16.   | Note that countries are able to add additional frequency categories if they wish to obtain finer level information. The question refers to typical or usual use, therefore less frequent use because of absence (e.g. on holiday) is not taken into account.  |
| 17.   | The purpose of this question is to explore the use of mobile Internet access. It has been nominated as non-core because it has not been tested in this form and its categories may be technically complex for many respondents (though the sub-population for whom the question is relevant is likely to be relatively advanced, technically).  |
| 18.   | New filter question for the following two questions on security of the home computer. Like those questions, it has been nominated as non-core.  |
| 19.   | This is a new question and is nominated as non-core because of evidence that many respondents are unaware of security precautions in place. Consistent with that hypothesis, Finnish data indicates that countries can expect quite high "don't know" rates on this question. However, the incidence of "don't know" responses may be useful information as an indication of awareness.   |
| 20.   | This is based on question 13 in the previous (2002) model questionnaire. The purpose of the question is to explore the use of the Internet from particular locations where the access device (typically a computer) is associated with the location.  |
| 21.   | Possible country variations are: add or split categories according to country data requirements, though note comments about bias above.   |
| 22.   | This category would not appear on country questionnaires. Each country should tailor the response categories for the facilities available in their country.   |
| 23.   | There are alternative ways of asking activities questions. For instance, each could be rated according to its frequency of use. The model questionnaire uses a simplified method of presentation which asks respondents to respond in respect of all activities. It is presumed that reasonably comparable output can be compiled by those countries taking a different approach. Possible country variations are: add or split categories according to country data requirements, though note comments about bias above. Note that the categories are not strictly mutually exclusive (e.g. getting information about goods or services may overlap with getting information from government organisations). The response categories of Australia, Canada, Japan, Korea, the United Kingdom, the United States and Eurostat were checked for the revision of this question. 2004 data from Eurostat were used to remove some categories with very low responses (e.g. gambling and other financial services such as share purchasing).                 |
| 24.   | Government organisations/public authorities are defined per the SNA93. They include government organisations at local, regional and national level. According to SNA93 "the principal functions of government are to assume responsibility for the provision of goods and services to the community or to individual households and to finance their provision out of taxation or other incomes; to redistribute income and wealth by means of transfers; and to engage in non-market production". For more information, see <a href="http://unstats.un.org/unsd/sna1993/glossform.asp?getitem=219">http://unstats.un.org/unsd/sna1993/glossform.asp?getitem=219</a> .  |
| 25.   | The item "purchasing over the Internet" has been removed following a Eurostat change for 2006. The logic for the removal is that there is a separate question on Internet purchasing and analysis of Eurostat data has shown that the results from the two questions differ.  |

Table 6.A1.1. OECD model questionnaire for ICT access and use by households and individuals (2005) (cont.)

| Section B: Individual (adult) use of information and communication technology | Logic <sup>1</sup>   | Definitions and notes  |
|---|--|--|
| 27.   | An option is to have a separate section for digitally delivered products (following the practices of Eurostat and Japan). Other possible country variations are: remove categories where items are not available (or are illegal); add or split categories according to products available and country data requirements (though note comments about bias above). Classifications of Canada, Japan, Eurostat, Finland, Korea, the United Kingdom and Australia have been used in revising this question. In addition, the CPC 1.1 mail-order/Internet purchases categories were considered as were those of a major Internet purchasing website. Note that categories are arranged in alphabetical order.  | An option is to have a separate section for digitally delivered products (following the practices of Eurostat and Japan). Other possible country variations are: remove categories where items are not available (or are illegal); add or split categories according to products available and country data requirements (though note comments about bias above). Classifications of Canada, Japan, Eurostat, Finland, Korea, the United Kingdom and Australia have been used in revising this question. In addition, the CPC 1.1 mail-order/Internet purchases categories were considered as were those of a major Internet purchasing website. Note that categories are arranged in alphabetical order.  |
| 28.   | Following feedback that there were too many categories, the following items were removed (in some cases, country data indicate a low level of purchases; in other cases, the items were removed because they are not generally included on equivalent country questions): <i>Gambling, lotteries or betting services; Gifts n.e.c. (e.g. flowers, gift baskets, gift certificates); Household furniture, appliances or equipment (white goods, audio-visual equipment; excluding computer equipment and parts); Motor vehicles, accessories or parts; Musical instruments or sheet music; Real estate; Toiletry or health items (pharmaceuticals, other medical products, perfume, cosmetics, etc.); Toys, hobby items or collectibles (stamps, coins, autographs, figurines, models, craft items, art, etc.); Watches or jewellery.</i> If any of these categories are important, countries may wish to add them back.  | Following feedback that there were too many categories, the following items were removed (in some cases, country data indicate a low level of purchases; in other cases, the items were removed because they are not generally included on equivalent country questions): <i>Gambling, lotteries or betting services; Gifts n.e.c. (e.g. flowers, gift baskets, gift certificates); Household furniture, appliances or equipment (white goods, audio-visual equipment; excluding computer equipment and parts); Motor vehicles, accessories or parts; Musical instruments or sheet music; Real estate; Toiletry or health items (pharmaceuticals, other medical products, perfume, cosmetics, etc.); Toys, hobby items or collectibles (stamps, coins, autographs, figurines, models, craft items, art, etc.); Watches or jewellery.</i> If any of these categories are important, countries may wish to add them back.  |
| 29.   | The issue of bias arising from recall error is especially relevant for this question. OECD suggests that countries select a recall period for Internet purchases which allows calculation of 12 months' value (for instance, countries which collect monthly information should collect expenditure in respect of the last month). This information could also be collected in a household expenditure (or budget) survey rather than a use of ICT collection. Whichever method is chosen, it should deliver a reasonably unbiased estimate of total domestic Internet expenditure for the 12 month reference period. Note that this question should be asked in national currency and can be asked as a single value or as a set of ranges. If the latter, then the top category should be open (and ask for an exact value), and preferably apply to a small proportion of respondents. It is suggested that use of ranges may reduce recall bias (and probably also question non-response). Note that Eurostat dropped this question from 2005. Because it can be a difficult question to collect, it has been nominated as non-core. | The issue of bias arising from recall error is especially relevant for this question. OECD suggests that countries select a recall period for Internet purchases which allows calculation of 12 months' value (for instance, countries which collect monthly information should collect expenditure in respect of the last month). This information could also be collected in a household expenditure (or budget) survey rather than a use of ICT collection. Whichever method is chosen, it should deliver a reasonably unbiased estimate of total domestic Internet expenditure for the 12 month reference period. Note that this question should be asked in national currency and can be asked as a single value or as a set of ranges. If the latter, then the top category should be open (and ask for an exact value), and preferably apply to a small proportion of respondents. It is suggested that use of ranges may reduce recall bias (and probably also question non-response). Note that Eurostat dropped this question from 2005. Because it can be a difficult question to collect, it has been nominated as non-core. |
| 30.   | It is possible to ask barriers questions in a variety of ways – see footnote 10 for more information. Possible country variations are: add or split categories according to country data requirements. In revising this question, response categories have been compared with those of Eurostat, Australia, Japan and the United Kingdom. Note that responses to barriers questions tend to be fairly stable over time therefore they may be rotated in and out of an annual collection.   | It is possible to ask barriers questions in a variety of ways – see footnote 10 for more information. Possible country variations are: add or split categories according to country data requirements. In revising this question, response categories have been compared with those of Eurostat, Australia, Japan and the United Kingdom. Note that responses to barriers questions tend to be fairly stable over time therefore they may be rotated in and out of an annual collection.   |

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