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Working Party on Indicators for the Information Society

**MEASURING ICT USAGE AND ELECTRONIC COMMERCE IN HOUSEHOLDS/BY INDIVIDUALS.
A MODEL QUESTIONNAIRE**

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This is a slightly modified version of the OECD model questionnaire of ICT use by households and individuals that was declassified by the ICCP in October 2002. The modifications primarily concern corrections for minor errors. The paper is for information at the WPIIS meeting under item 4.2 of the draft agenda.

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MEASURING ICT USAGE AND ELECTRONIC COMMERCE IN HOUSEHOLDS AND BY INDIVIDUALS

A model questionnaire

Introduction

1. The ICCP Working Party on Indicators for the Information Society (WPIIS) has adopted a "building blocks" approach to the development of indicators, whereas methodological work and data collection have proceeded in several areas at different speeds, in a step-by-step, pragmatic way. One of the areas of WPIIS work looks at the development of indicators of ICT usage and e-commerce. Statistics on the diffusion of new information technologies among businesses, individuals and public organisations are important for helping to evaluate the extent to which the use of technologies has an impact on overall economic performance. Greater use of ICT in the production process may, for example, help raise the overall efficiency of the use of capital and labour, *e.g.* by reducing inventories and transaction costs. For technologies based on networks, such as the Internet, the more people who are connected, the greater the potential benefits of the network owing to spillover effects. Also, the growing policy interest in issues such as universal access, the digital divide, consumer trust and privacy protection has raised demand for indicators on access to and use.

2. One recent achievement of WPIIS work has been the development, and adoption in 2001, of the model survey on ICT use in business [DSTI/ICCP/WPIIS(2001)1/REV1]. This survey has influenced the collection of internationally comparable indicators of ICT usage and e-commerce across a number of OECD countries. Official, high quality, internationally comparable statistics can now be used to provide a picture of the extent to which countries are embracing the information economy, as well as the speed to which they are doing it (*e.g. Measuring the Information Economy 2002*), and to carry out evidence-based analysis of policy issues (*e.g. Information Technology Outlook 2002*).

3. Another important "building block" of WPIIS work is the model survey on ICT usage in households and by individuals. WPIIS worked since 2000 with the Voorburg Group¹ and Eurostat to develop a model questionnaire of the use of ICT goods and services in households and by individuals. The activity was led by the Australian Bureau of Statistics and especially benefited from the input of a group of WPIIS reviewers from Canada, Finland, France, Sweden, United Kingdom, United States and Eurostat. After two years of experience sharing and testing of some of the questions by several OECD Member countries², a final proposal for a model questionnaire on ICT usage in enterprises was discussed by WPIIS at its last meeting (25-26 April 2002).

1. United Nations City Group on Service Statistics.

2. At the April 2000 and 2001 meetings of the OECD's Working Party on Indicators for the Information Society (WPIIS), Australia presented a model questionnaire for surveys of household ICT use (DSTI/ICCP/IIS(2000)7 and DSTI/ICCP/IIS(2001)2). Discussion at the WPIIS, Voorburg and Eurostat meetings and subsequent correspondence has indicated a diversity of views on the content of a model questionnaire on ICT use. In an attempt to progress this work, the 2002 WPIIS meeting discussed major outstanding issues [DSTI/ICCP/IIS(2002)1] and reached an agreement. Another round of discussion following the April 2002 WPIIS meeting and subsequent written comments have led to this final version.

4. The model is intended to provide guidance for the measurement of indicators of ICT, Internet use and electronic commerce and member countries are encouraged to use it as a core part of their questionnaire development. However, the language used in the questionnaire has to be understood by respondents and it is not expected that the exact wording of the definitions will necessarily be used, unchanged, in collection.

5. The questionnaire is composed of separate, self-contained modules to ensure flexibility and adaptability to a rapidly changing environment. As technology and policy priorities evolve, the model questionnaire will need to be reviewed and adapted over time. While the use of “core” modules allows the measurement on an internationally comparable basis, additional modules and new indicators within existing modules can be added to respond to evolving or country specific policy needs in this area. This is a built-in feature of the module-based approach of the questionnaire.

General approach to the model questionnaire

6. The underlying idea behind the elaboration of this model questionnaire is to guide the collection of internationally comparable statistics of ICT access in households and usage by individuals, including indicators of electronic commerce, across OECD Member countries. The model is composed of modules that can be used either in their totality or as separate modules in specific national surveys, thereby adding the possibility of international comparisons to the value of purely national information.

7. The main features of the proposed model questionnaire on ICT usage and electronic commerce in households/by individuals are:

- *Link of indicators to user needs.* The model questionnaire reflects common elements of national ICT usage surveys that in turn are guided by national policy priorities. It also reflects OECD work on the development of a framework for user needs and priorities, definitions, and statistical measurement of core electronic commerce indicators [DSTI/ICCP/IE/IIS(2000)3/Rev1]. Core electronic commerce indicators related to households and individuals can be measured in the context of the model ICT usage questionnaire proposed here (see Table 1).

Table 1. Core e-commerce indicators for households/individuals as contained in DSTI/ICCP/IE/IIS(2000)3/Rev1

Number and proportion of households	<ul style="list-style-type: none"> – With computers. – With access to the Internet (PC and by any means). – Recognising barriers to Internet access (by reason).
Number and proportion of individuals	<ul style="list-style-type: none"> – Using the Internet (any means, any location, any purpose). – Using the Internet (any means, any location, personal use). – Undertaking specific activities over the Internet (any location). – Placing orders over the Internet (home and any location). – Recognising barriers to Internet commerce (by reason).

- *Flexibility and adaptability.* The model questionnaire has been designed to be a flexible tool composed of modules that allow international comparisons of core indicators as well as the inclusion of country specific features. In particular:

- countries can add additional questions and extra categories to questions;
 - with some care, countries can remove categories which do not apply and can split categories into sub-categories;
 - countries can use more than one survey vehicle if they wish, for instance use a household expenditure survey to collect information on Internet purchases;
 - the primary emphasis is on consistency of output therefore the model questionnaire allows some flexibility in methodologies used and the way questions are asked (for instance, on barriers questions, the ‘main reason’ approach may give reasonably equivalent results to the highest ranked ‘most important’ reason).
- *Simplicity to minimise burden.* The model questionnaire is designed to keep the questions simple in order to promote consistency of output and to reduce respondent burden.
- *Comparability of output.* The model questionnaire tries to achieve a comparability of outputs via:
- reasonable comparability of data items and question wording (whilst allowing some flexibility to member countries);
 - comparability of classifications across member countries;
 - as far as possible, comparability of scope and coverage, methodology, frequency and reference periods across member countries.

The core modules

8. Given the urgent need for internationally comparable statistics on ICT usage and electronic commerce, the priority of the group has been that of developing a first set of five core modules to measure indicators related to Internet access by households and Internet use by individuals. Annexes 1 and 2 contain the proposed model questionnaire and the related statistical standards. The five core modules are:

- **A. Household access to computers and the Internet.** This module focuses on computer and Internet access in households; the type of device used for connecting to the Internet and the speed of the connection (distinguishing between higher and lower speed Internet services).
- **B. Household barriers to adoption of the Internet.** While information about perceived barriers is perhaps not traditionally collected as part of official statistical surveys, this type of information is important for policy makers. For example, indicators on barriers can help monitoring issues of digital divide, potential bottlenecks related to the technology or the lack of appropriate skills, or issues closely related to the use of the Internet to conduct transactions, such as security and logistics concerns. Answers on perceived barriers are inevitably qualitative in nature and limit the use of these indicators for purposes of international comparisons. Nevertheless they can be useful to detect some common obstacles to the diffusion of new information technologies and can be used together with other types of quantitative indicators to explain differences between the intensity of use of new technologies across countries.
- **C and D. Use of the Internet by individuals.** These questions are addressed to individuals. Module C relates to the location and frequency of use of the Internet (at home, at work and in other locations). Module D relates to the type of activities carried out by individuals while using the Internet. At this stage the indicators mainly relate to information and communication intensive activities (e.g. information search – about products, employment-related information, health services, etc., communication via e-mail/chat rooms/Internet telephony), activities related to transactions over the Internet and interactions with public authorities.

- **E. Internet commerce and barriers to Internet purchases.** These questions relate to the location and frequency of individual purchases for personal use, the types of goods purchased and whether persons have paid online for those transactions. Questions related to the monetary amount of the transactions, are here expressed in interval bands in order to maximise the response rate. This module also addresses concerns preventing individuals from purchasing over the Internet (such as privacy, security, concerns related to returning or receiving goods, etc.).

Discussion at the WPIIS April 2002 meeting and final changes to the model survey

9. The 2002 meeting discussed a number of substantive issues, most of which had been raised before and on which there is a diversity of views. Issues not specifically discussed were those which are considered relatively minor or able to be dealt with by individual countries (noting the flexibility of countries to depart from the model in a number of ways). Issues discussed and agreement reached at the meeting are:

- **Survey unit.** WPIIS agreed to retain two units for survey - household and individual. After experience, the applicability of the household questions could be reviewed, especially Q5 (household barriers to Internet access).
- **Recall period.** Recall period was discussed at some length and views were mixed. A number of countries have expressed concerns about the recall period of 12 months proposed in the previous WPIIS papers. While a 12 month period, in theory, removes the problems of bias arising from seasonal purchasing behaviour (for instance, around Christmas), it potentially introduces a recall bias effect which could lead to underestimation. The current model suggests that countries select a recall period for value of Internet purchases such that they can produce reasonable quality unbiased annual estimates, that is estimates which do not suffer unduly from the effects of recall or seasonal bias. Short recall periods are recommended where surveys are conducted sub-annually (for instance, in a quarterly survey, the recall period could be three months). For annual (or less frequent) surveys, asking for value of Internet purchases in respect of a shorter period is likely to result in an estimate which suffers from a seasonal bias effect. Perhaps more importantly, results will not be comparable across countries (because the reference date will differ). Also, shorter reference periods are adequate for capturing most of respondents' primary uses of computers and the Internet but will fail to capture infrequent but regular activities like checking for travel tickets, purchasing online, looking for health or real estate information. Ultimately, WPIIS retained a recall period of 12 months for more general questions (for example, Internet use and for what purpose) where recall is expected to be less of a problem than it is potentially for purchasing questions.
- **Survey techniques.** WPIIS was reluctant to prescribe particular survey techniques. However, it agreed to a recommendation that postal surveys be excluded (though using mail to make initial contact is acceptable).

10. The model survey version presented in this paper incorporates a number of relatively minor changes arising from written comments on the version presented at the WPIIS April 2002 meeting [ICCP/DSTI/IIS(2002)1/REV1]³ and the subsequent re-drafts in July and August. In particular, the changes are:

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3. It should be noted that all the comments received following the WPIIS meeting in April 2002 were carefully considered. However, it was not possible to incorporate them all into the final model because they either differed from the consensus position as agreed at the WPIIS meeting and/or they were not consistent with classification rules or statistical standards.

- Small changes were made to Statistical Standards (Annex 1). Categories of the classificatory variable “household composition” were defined; the definition of the variable “annual household income” was changed slightly; and, the recommendation to preclude postal surveys was removed, with postal surveys now covered by the general advice on reduction of survey errors.
- In order to make the logic of the form clearer, the population to which the question applies was added to each question.
- Question 4 (means of access to the Internet) was changed, with the main effects being to remove a “high speed access” grouping (because it was thought that respondents would not necessarily know whether their access was “high speed”) and to remove the “wireless” category (because it included diverse technologies, not all of which were considered by member countries to be wireless).
- Questions 8 and 11 were changed to remove the fixed/mobile access distinction. The split was retained on Q13 (access at other places) because it is considered to be highly relevant for that question.
- Changes were made to the activities question (Q17) to replace two of the “Deal with government” subcategories ("submit tax returns" and "apply for benefits") with more general government interaction categories. In addition, a subcategory, "Using health related services", was added to “Find information” in Q17. These changes make the activities categories more consistent with Eurostat’s current questionnaire.
- Question 23 contains a list of goods and services bought/ordered over the Internet. Two of the categories were changed to become the commodities being acquired (movies or music) rather than the media by which they are acquired (e.g. DVDs, CDs).

11. Whilst a number of valid suggestions could not be incorporated in the current version of the model survey they will be object of consideration at the first review of the model survey (see next section).

Concluding remarks

12. It is suggested that additional components of the questionnaire be added over time as technologies, usage practices and policy interests change. The suggested module approach facilitates this form of development. The 2002 meeting agreed to review the inclusion of several items at the first review of the model questionnaire. In particular:

- Additional modules on use of cellular phones and e-mails. Whilst seeing value in the suggested modules, WPIIS agreed that consideration should be deferred until the first review of the approved model questionnaire.
- Children’s use of ICT. 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. Those countries that already do, or 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 questionnaire. In order to achieve international comparability, those countries are asked to 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 questionnaire.

13. While further work still needs to be done, the model questionnaire needs to be seen as a survey vehicle evolving over time.

ANNEX 1. STATISTICAL STANDARDS FOR A MODEL QUESTIONNAIRE ON HOUSEHOLD AND INDIVIDUAL USE OF ICT

Classificatory variables

14. The metadata associated with the model questionnaire includes a small number of classificatory variables, with relatively few categories in each classification. Many member countries will decide to use extra classificatory variables and/or additional categories. Minimal classifications proposed are:

Household characteristics

- household composition (couple; couple with children; one parent family; other family; lone person; other non-family)⁴;
- household size (number of members);
- annual household income (gross income from all sources for all household members); this variable could be expressed as ranges or percentiles.

Personal characteristics for adults

- age (age is a strong determinant of ICT use so a common age cut-off is important; an age range of 16 years and older is proposed for output purposes);
- gender;
- highest education level received (primary, secondary, post-secondary (not tertiary), tertiary per groupings of broad ISCED levels);
- employment status (full-time employee; part-time employee; self-employed; unemployed; not in the labour force);
- occupation (use ISCO major groups where possible).

4. *Other family* is a family of related individuals residing in the same household. These individuals do not form a couple or parent-child relationship with any other person in the household and are not attached to a couple or one parent family in the household. If two brothers, for example, are living together and neither is a partner, a lone parent or a child to someone else in the household, then they are classified as an other family. However, if the two brothers share the household with the daughter of one of the brothers and her husband, then both brothers are classified as other related individuals and are attached to the couple family. *Other non-family* is a household consisting of two or more unrelated people where all persons are aged 15 years or over. There are no reported couple relationships, parent-child relationships or other blood relationships in these households.

Scope and coverage

15. While there will be differences in scope and coverage between countries, these are likely to be unavoidable because of use of existing survey vehicles. Countries should note any exclusions from scope or areas of poor coverage. Examples might be exclusion or undercoverage of particular sub-populations. Where possible, the effect on aggregate data should be estimated and noted.

Methodology***Survey design and conduct***

16. Member countries differ in the survey vehicles used. It appears that most use existing surveys such as labour force, household expenditure or general social surveys. Clearly it is not possible to prescribe a survey vehicle though member countries' experiences led to the recommendation to the 2002 WPIIS meeting that postal surveys not be used. This is because of the poor response rates usually achieved with postal collections, resulting in high standard errors and bias if characteristics of the non-responding population differ from those of respondents. However, at least one member country uses mail-out/mail-back surveys to collect household use of ICT data and reports achieving good response rates. For this reason, we prefer not to preclude any particular collection methodology where the underlying data prove to be sound.

17. Member countries should note that different approaches can lead to inconsistencies in output. All countries should therefore aim to reduce sampling and non-sampling error as much as possible by:

- using well designed samples which are of sufficient size to produce reliable data (that is having low standard errors)
- careful design and testing of questions and question sequences
- intensive training and checking of interviewers
- reducing non-response as far as possible, and
- minimising data entry, editing and other processing errors.

Given the diversity of survey vehicles, the points made above on careful design and testing of questions, training of interviewers and weighting are particularly important when considering a survey vehicle.

Units, selection and weighting

18. Both households and individuals are proposed as statistical units. Information should be sought from a randomly selected adult⁵ who responds in respect of the household (Modules A and B) and in respect of him/herself (Modules C to E). Households, and individuals within those households, need to be selected in an unbiased manner.

5. In the Australian surveys, an adult is defined as a person aged 15 years or over.

19. 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 total population.

Frequency and reference period/date

20. It is probably unrealistic to expect member countries to conduct surveys more frequently than annually. For some member 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.

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

ANNEX 2. MODEL QUESTIONS FOR HOUSEHOLD AND INDIVIDUAL USE OF ICT

Core modules for a model questionnaire on household and individual ICT use

22. The model questionnaire consists of five core modules as follows:

- A. Household access to computers and the Internet (the statistical unit is the household)
- B. Household barriers to adoption of the Internet (the statistical unit is the household)
- C. Adult use of computers and the Internet: location and frequency of use (the statistical unit is a randomly selected adult)
- D. Purpose and nature of adult activities on the Internet (the statistical unit is a randomly selected adult)
- E. Internet-commerce details: adult activities and barriers (the statistical unit is a randomly selected adult).

Please note: the model questions presented here do not constitute an **operational questionnaire**, the form of which will vary according to factors which are specific to each survey and country. Because it is not an operational questionnaire, it does not show:

- questions which establish the values of classificatory variables (household and personal characteristics), see Annex 1 for a specification of those;
- filter questions which have no ICT data content (e.g. whether the respondent is an employee);
- definitions of terms used (e.g. a computer);
- sequencing or other interview instructions (though it does indicate the respondent population for each question);
- 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).

MODEL QUESTIONS FOR HOUSEHOLD AND INDIVIDUAL USE OF ICT

	<p>Module A. Household access to computers and the Internet (<i>Questions are asked of a responsible adult answering for the household. The respondent can be the same randomly chosen person who answers the individual questions in later modules.</i>)</p>
1	<p>Does any member of this household/do you have access to a computer at home regardless of whether it is used?</p> <p><i>Population: all households</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
2	<p>Does any member of this household/do you have access to the Internet at home regardless of whether it is used?</p> <p><i>Population: all households</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
3	<p>By which means do members of this household access the Internet at home?</p> <p><i>Population: households with access to the Internet at home</i></p> <p>Through a home PC <input type="checkbox"/></p> <p>Through a portable computer <input type="checkbox"/></p> <p>Through a digital television set or set top box <input type="checkbox"/></p> <p>Through a mobile phone <input type="checkbox"/></p> <p>Through a games machine with Internet connection <input type="checkbox"/></p> <p>Using any other means? (<i>Please Specify</i>) _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 1 and 2</i></p>
4	<p>What type of services do the members of this household subscribe to for internet access?</p> <p><i>Population: households with access to the Internet at home</i></p> <p>Dial-up (standard modem) <input type="checkbox"/></p> <p>Cable modem <input type="checkbox"/></p> <p>ISDN (Integrated Services Digital Network) <input type="checkbox"/></p> <p>DSL (Digital Subscriber Line e.g. ADSL) <input type="checkbox"/></p> <p>Low speed mobile services (e.g. WAP, I-mode) <input type="checkbox"/></p> <p>High-speed mobile services (2^{1/2}G, 3G, IMTS, UMTS) <input type="checkbox"/></p> <p>Other services (<i>Please Specify</i>) _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 1 and 2</i></p>

Module B. Household barriers to adoption of the Internet (<i>Questions are asked of the same adult who answered Module A questions.</i>)	
5	<p>What are ALL the reasons for members of this household not having access to the Internet at home? (<i>Not having the means to access the Internet, e.g. no computer or computer too old, is not a valid response.</i>)</p> <p><i>Population: households without access to the Internet at home</i></p> <p>Costs are too high <input type="checkbox"/></p> <p>Lack of confidence or skills <input type="checkbox"/></p> <p>Not interested <input type="checkbox"/></p> <p>Privacy concerns <input type="checkbox"/></p> <p>Security concerns <input type="checkbox"/></p> <p>Concern that children will access inappropriate sites <input type="checkbox"/></p> <p>Have access to Internet elsewhere <input type="checkbox"/></p> <p>Lack of time to use the Internet <input type="checkbox"/></p> <p>Language barriers <input type="checkbox"/></p> <p>Other (<i>Please Specify</i>) _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 2, 3 and 4</i></p>
6	<p>What is the MAIN reason for members of this household not having access to the Internet at home? (<i>Not having the means to access the Internet, e.g. no computer or computer too old, is not a valid response.</i>)</p> <p><i>Population: households without access to the Internet at home</i></p> <p>Costs are too high <input type="checkbox"/></p> <p>Lack of confidence or skills <input type="checkbox"/></p> <p>Not interested <input type="checkbox"/></p> <p>Privacy concerns <input type="checkbox"/></p> <p>Security concerns <input type="checkbox"/></p> <p>Concern that children will access inappropriate sites <input type="checkbox"/></p> <p>Have access to Internet elsewhere <input type="checkbox"/></p> <p>Lack of time to use the Internet <input type="checkbox"/></p> <p>Language barriers <input type="checkbox"/></p> <p>Other (<i>Please Specify</i>) _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 3 and 4</i></p>

Module C. Adult use of computers and the Internet: location and frequency of use (Questions are asked of a randomly chosen adult respondent.)	
7	<p>In the last 12 months, did you use a computer at home?</p> <p><i>Population: all persons with access to a computer at home</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
8	<p>In the last 12 months, did you access the Internet at home?</p> <p><i>Population: all persons with access to the Internet at home</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
9	<p>How often did you USUALLY access the Internet at home in the last 12 months?</p> <p><i>Population: all persons who accessed the Internet at home in the last 12 months</i></p> <p>At least once a day <input type="checkbox"/></p> <p>At least once a week but not every day <input type="checkbox"/></p> <p>At least once a month but not every week <input type="checkbox"/></p> <p>Less than once a month <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p><i>See Note 5</i></p>
10	<p>In the last 12 months, did you use a computer at work?</p> <p><i>Population: all persons who did paid or unpaid work in a job or business in the last 12 months</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><i>See Note 6</i></p>
11	<p>In the last 12 months, did you access the Internet at work?</p> <p><i>Population: all persons who did paid or unpaid work in a job or business in the last 12 months</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><i>See Note 6</i></p>
12	<p>How often did you USUALLY access the Internet at work in the last 12 months?</p> <p><i>Population: all persons who accessed the Internet at work in the last 12 months</i></p> <p>At least once per working day <input type="checkbox"/></p> <p>At least once a week but not every working day <input type="checkbox"/></p> <p>At least once a month but not every week <input type="checkbox"/></p> <p>Less than once a month <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p><i>See Note 5</i></p>

Module C. continued	
13	<p>Did you access the Internet at places other than home or work in the last 12 months?</p> <p><i>Population: all persons</i></p> <p>Yes, using a mobile access device (e.g. a portable computer connected to a mobile phone, mobile WAP phone) <input type="checkbox"/></p> <p>Yes, using a fixed access device <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p><i>See Notes 2 and 7</i></p>
14	<p>In the last 12 months, at which of these places did you access the Internet?</p> <p><i>Population: all persons who have accessed the Internet at places other than home or work, using a fixed access device, in the last 12 months</i></p> <p>School <input type="checkbox"/></p> <p>Tertiary education institution <input type="checkbox"/></p> <p>Public library <input type="checkbox"/></p> <p>Government agency, department or shopfront <input type="checkbox"/></p> <p>Internet or cyber café, or similar <input type="checkbox"/></p> <p>Community or voluntary organisation <input type="checkbox"/></p> <p>Neighbour's, friend's or relative's house <input type="checkbox"/></p> <p>Other (Please Specify) _____</p> <p><i>See Notes 2 and 3</i></p>
15	<p>How often did you USUALLY access the Internet at any of these places in the last 12 months?</p> <p><i>Population: all persons who have accessed the Internet at places other than home or work, using a fixed access device, in the last 12 months</i></p> <p>At least once a day <input type="checkbox"/></p> <p>At least once a week but not every day <input type="checkbox"/></p> <p>At least once a month but not every week <input type="checkbox"/></p> <p>Less than once a month <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p><i>See Note 5</i></p>

Module D. Purpose and nature of adult activities on the Internet (<i>Questions are asked of the same randomly chosen adult respondent who answered Module C.</i>)	
16	<p>For which purposes did you use the Internet in the last 12 months?</p> <p><i>Population: all persons who have accessed the Internet in the last 12 months</i></p> <p>Paid work or business <input type="checkbox"/></p> <p>Education or study <input type="checkbox"/></p> <p>Voluntary or community work <input type="checkbox"/></p> <p>Personal or private <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 2 and 8</i></p>
17	<p>For which activities did you use the Internet in the last 12 months?</p> <p><i>Population: all persons who have accessed the Internet in the last 12 months</i></p> <p>Find information</p> <ul style="list-style-type: none"> - Find information about goods and services <input type="checkbox"/> - Search for employment or find employment related information <input type="checkbox"/> - Find information on health related services <input type="checkbox"/> - Obtain information from government web sites <input type="checkbox"/> - Obtain other information or general browsing <input type="checkbox"/> <p>Communication</p> <ul style="list-style-type: none"> - Internet email <input type="checkbox"/> - Use chat rooms/sites, message boards, etc. <input type="checkbox"/> - Internet telephony <input type="checkbox"/> <p>Commerce</p> <ul style="list-style-type: none"> - Purchase or order goods or services (excluding investment products, shares) <input type="checkbox"/> - Sell goods or services (e.g. through auction sites) <input type="checkbox"/> - Financial or investment activities (e.g. Internet banking, share purchasing) <input type="checkbox"/> <p>Deal with government</p> <ul style="list-style-type: none"> - download official forms <input type="checkbox"/> - submit completed forms <input type="checkbox"/> - other dealings with government <input type="checkbox"/> <p>Entertainment (e.g. playing games, downloading music, gambling) <input type="checkbox"/></p> <p>Download patches or software <input type="checkbox"/></p> <p>Other (<i>Please Specify</i>) _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 2, 3, 8 and 9</i></p>
18	<p>On which activity did you spend the MOST time?</p> <p><i>Population: all persons who reported using the Internet for more than one activity (in Q17) in the last 12 months</i></p> <p>(<i>Please Specify</i>) _____</p>

Module E. Internet commerce details: adult activities and barriers (<i>Questions are asked of the same randomly chosen adult respondent who answered Modules C and D.</i>)	
19	<p>In the last 12 months, did you buy or order goods or services FOR PERSONAL OR DOMESTIC USE over the Internet?</p> <p><i>Population: all persons who have accessed the Internet in the last 12 months</i></p> <p>Yes, at home <input type="checkbox"/></p> <p>Yes, at work <input type="checkbox"/></p> <p>Yes, at other places <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p><i>See Notes 2 and 6</i></p>
20	<p>What were ALL the reasons for not buying any goods or services for your own private use over the Internet in the last 12 months?</p> <p><i>Population: all persons who have accessed the Internet in the last 12 months, but have not bought or ordered goods or services over the Internet</i></p> <p>Have no need (but have no objection in principle) <input type="checkbox"/></p> <p>Prefer to shop in person or like to see the product <input type="checkbox"/></p> <p>Security concerns (worried about giving debit or credit card details over the Internet) <input type="checkbox"/></p> <p>Privacy concerns (worried about giving personal details over the Internet) <input type="checkbox"/></p> <p>Concerned about warranties, receiving or returning goods <input type="checkbox"/></p> <p>Delivery of goods ordered over the Internet is a problem (e.g. takes too long or is logistically difficult) <input type="checkbox"/></p> <p>More expensive than traditional forms of shopping <input type="checkbox"/></p> <p>Speed of connection is too slow <input type="checkbox"/></p> <p>Other (Please Specify) _____</p> <p><i>See Notes 2, 3 and 4</i></p>
21	<p>What was the MAIN reason for not buying any goods or services for your own private use over the Internet in the last 12 months?</p> <p><i>Population: all persons who reported more than one reason (in Q20) for not buying or ordering goods or services over the Internet in the last 12 months</i></p> <p>Have no need (but have no objection in principle) <input type="checkbox"/></p> <p>Prefer to shop in person or like to see the product <input type="checkbox"/></p> <p>Security concerns (worried about giving debit or credit card details over the Internet) <input type="checkbox"/></p> <p>Privacy concerns (worried about giving personal details over the Internet) <input type="checkbox"/></p> <p>Concerned about warranties, receiving or returning goods <input type="checkbox"/></p> <p>Delivery of goods ordered over the Internet is a problem (e.g. takes too long or is logistically difficult) <input type="checkbox"/></p> <p>More expensive than traditional forms of shopping <input type="checkbox"/></p> <p>Speed of connection is too slow <input type="checkbox"/></p> <p>Other (Please Specify) _____</p> <p><i>See Notes 2, 3 and 4</i></p>

Module E. continued	
22	<p>How often did you usually buy or order goods or services for personal or domestic use over the Internet in the last 12 months?</p> <p><i>Population: all persons who bought or ordered goods or services over the Internet in the last 12 months</i></p> <p>At least once a week <input type="checkbox"/></p> <p>At least once a month but not every week <input type="checkbox"/></p> <p>At least once every three months but not every month <input type="checkbox"/></p> <p>Less than once every three months <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p>See Note 5</p>
23	<p>What types of goods and services did you buy or order over the Internet (for personal or domestic use) in the last < _____ > (period to be set by individual member country)?</p> <p><i>Population: all persons who bought or ordered goods or services over the Internet in the last 12 months</i></p> <p>Clothing, accessories, jewellery or shoes <input type="checkbox"/></p> <p>Food or groceries <input type="checkbox"/></p> <p>Alcoholic beverages <input type="checkbox"/></p> <p>Movies or music (e.g. videos, DVDs, CDs, downloaded files) <input type="checkbox"/></p> <p>Books, magazines or newspapers (including those on-line) <input type="checkbox"/></p> <p>Computer software (excluding computer games) <input type="checkbox"/></p> <p>Computer hardware <input type="checkbox"/></p> <p>Electronic equipment (excluding computer hardware) <input type="checkbox"/></p> <p>Games or toys (including computer games) <input type="checkbox"/></p> <p>Travel products (tickets, accommodation, vehicle hire etc) <input type="checkbox"/></p> <p>Tickets to entertainment events (sporting, theatre, concert etc) <input type="checkbox"/></p> <p>Motor vehicles, accessories or parts <input type="checkbox"/></p> <p>Financial products or services (including insurance) <input type="checkbox"/></p> <p>Gambling, lotteries or betting <input type="checkbox"/></p> <p>Other (<i>Please Specify</i>) _____</p> <p>See Notes 2, 3 and 10</p>

Module E. continued	
24	<p>What was the TOTAL value of goods and services you bought or ordered (for personal or domestic use) over the Internet in the last < _____ > (period to be set by individual member country)? <i>(This question excludes the value of capital items such as investment products, shares and loans but includes financial services charges such as Internet brokers' fees.)</i></p> <p><i>Population: all persons who bought or ordered goods or services over the Internet in the last 12 months</i></p> <p>USD 0 – 130 <input type="checkbox"/></p> <p>USD 131 – 260 <input type="checkbox"/></p> <p>USD 261 – 500 <input type="checkbox"/></p> <p>USD 501 – 1,000 <input type="checkbox"/></p> <p>USD 1,001 - 2,500 <input type="checkbox"/></p> <p>USD 2,501 – 5,000 <input type="checkbox"/></p> <p>Over USD 5,000 <i>(Please Specify)</i> _____</p> <p>Don't know <input type="checkbox"/></p> <p><i>See Notes 11 and 12</i></p>
25	<p>Did you pay for any of those goods or services on-line (for example, by giving your credit or debit card details over the Internet)?</p> <p><i>Population: all persons who bought or ordered goods or services over the Internet in the last 12 months</i></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>

Notes to the questionnaire

Note 1: Possible country variations are: remove categories where items are not available; 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.

Note 2: Multiple responses are allowed.

Note 3: Possible country variations are: add or split categories according to country data requirements. Please note comments on bias under Note 1 above.

Note 4: 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. The model questionnaire asks for 'all reasons' and then 'main reason'. This approach is probably one of the least burdensome presentations. If countries do not wish to ask for both 'all reasons' and 'main reason', it is acceptable to simply ask for 'main reason'. Where countries use a different approach altogether to the collection of these data, for the purposes of international comparability, data should be tabulated to show the reason most commonly reported or most commonly selected as the most important reason.

Note 5: Frequency response categories vary slightly across questions depending on the nature of use. For instance, Internet purchasing is a relatively rare event so a response category of three months is included and a daily response category is excluded. Note that countries are able to add additional frequency categories if they wish to obtain finer level information.

Note 6: Where a person's workplace is located at his/her home, then he/she would answer both home and work questions referring to computer and Internet use, and Internet purchasing. Some countries might also like to ask the chosen adult whether he/she works exclusively from home.

Note 7: A response to the second item will direct the respondent to the next two questions. Where the only means of access is mobile, it is not necessary to ask respondents to answer Q14 and Q15.

Note 8: There are alternative ways of asking purposes and activities questions. For instance, each could be rated according to its frequency or intensity of use. The model questionnaire uses a simplified method of presentation which asks respondents for all purposes and all plus main activities. As for barriers, it is presumed that reasonably comparable output can be compiled by those countries taking a different approach.

Note 9: There is a very large amount of Internet activities information which could be collected. This paper proposes a small set of possibilities, recognising that some member countries will wish to collect far more detail. It is envisaged that, as the model questionnaire evolves, separate modules on activities undertaken using the Internet can be included. Possible modules include:

- Communicating using the Internet (e.g. use of email, chat sites, bulletin boards, Internet phone).
- Entertainment (e.g. music, gambling, games, radio, video).
- Searching for/obtaining information on a wide range of topics (e.g. education, medical/health, employment, goods & services, travel, news, IT etc).
- Government dealings (e.g. taxation, voting, government benefits lodgment/information).
- Use of particular on-line services such as health and education services.

The determination of additional modules, and questions within those modules, could be an appropriate task for a WPIIS Expert Group.

Note 10: Some goods or services may not be available for purchase over the Internet in all countries. For example, gambling over the Internet is illegal in some countries, as is purchasing alcoholic beverages. Countries should omit goods or services which are not relevant.

Note 11: The issue of bias arising from recall error is especially relevant for Q24. In respect of this question, we suggest that countries select a recall period for Internet purchases which would enable calculation of 12 months value. For instance, countries which collect monthly information should collect information in respect of the last month; countries collecting quarterly data, in respect of the last quarter etc. It is suggested that use of value ranges in Q24 may reduce recall bias (and will probably also reduce question non-response). Information on value of Internet purchases could also be collected in a household expenditure survey rather than a use of ICT collection. Whichever method is chosen, it should be able to deliver a reasonably unbiased estimate of total domestic Internet expenditure in respect of the 12 month reference period.

Note 12: These are the value categories in US Dollars corresponding to those used by Australia in 2002 (in Australian Dollars: AUD 0-250, 251-500, 501-1000, 1001-2000, 2001-5000, 5001-10000, over 10000). They are based on responses to the 2000 surveys (about half the responses fell into the lowest range). Other countries should determine currency ranges based on the distribution of responses. The top (open) category should apply to a very small proportion of respondents (in Australia, in 2000, it was fewer than 1 per cent). Alternatively, an exact value can be collected instead of using ranges; this is more likely to be feasible where a shorter recall period is used.