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Monitoring the Information Society: Data, Measurement and Methods
(Geneva, 8-9 December 2003)**

Event related to the World Summit on the Information Society

A PROPOSED OECD GUIDE TO INFORMATION SOCIETY MEASUREMENTS

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* Paper posted on the Web as submitted by OECD.

A Proposed OECD Guide to Information Society Measurements

Prepared for the WSIS Statistical Workshop

Monitoring the Information Society: Data, Measurement and Methods

Geneva, December 8-9, 2003

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This paper outlines the OECD's plans to produce a Guide for Information Society Measurement in time for the Tunis WSIS meeting of 2005.

A Proposed OECD Guide to Information Society Measurements

1. Background

Our era is often referred to as one of unprecedented technological change both in terms of the “quantity of change” and its speed.

The last two decades have witnessed the introduction of a number of new information and communications technologies (ICT), notably the personal computer, the cell phone and the Internet. The Internet, in particular, exemplifies this technological leap and has become the epitome of the digital era.

ICT-induced developments have enormous economic implications, as businesses and governments transform major aspects of their operations and organisation. The way economic production is organised, how distribution of goods and delivery of services takes place, how it all relates to industrial organisation, investment, trade and what it means for firm-level performance, including productivity, profitability and even employment arrangements, need to be understood anew, in light of the changes. Thus arises the need to study and understand the *Information Economy*.

The nature of ICTs is such that their usage and impacts extend well beyond the economic domain. They have numerous social consequences which, when added to the Information Economy, bring us to the concept of an ICT-centric *Information Society*, encompassing the Information Economy.

2. Rationale for the proposed Guide

Few other areas in recent memory have generated such thirst for interdisciplinary research as the Information Society. A host of questions, and even controversy, have surrounded it and range from the economic (macro, with the productivity paradox and micro, with performance); to the social (what it does to the spatial dimension of personal networks); the socio-economic (the Digital Divide and its implications); the political (e-democracy), and beyond. In order to address these higher-level issues, basic information on the supply and use of ICT is needed. Today, it is widely acknowledged that decision-making, at all levels will benefit from relevant and reliable information on ICT, complemented with analytical insights.

In many respects, the need for measurement in this area has already been sufficiently established, to the point that it appears as a priority of many national and international organisations. In actuality, however, measurement is taking place only among a few countries, many following the work of the OECD over the last five years in setting standards for measuring ICT.

The simultaneous presence of several elements is required for measurement activities to take place and illuminate issues of concern. Prominent among them is the ‘know-how’ which can maximise the value of the produced outputs and ensure international comparability. The latter requires harmonisation of approaches, including concepts, classifications and definitions. Early practitioners did not have the benefit of a manual on the shelf, complete with concepts, definitions and guidelines. The “building blocks” approach which has been followed by the OECD’s Working Party on Indicators for the Information Society (WPIIS) has led to new knowledge relating to ICT measurements that continues to accumulate. Examples include the definition of the ICT sector, the nested definitions of e-commerce and the development of model surveys to measure the use of ICT and electronic commerce. Work on a classification of ICT goods is well advanced, with a final classification anticipated by the end of 2003.

Although much more remains to be done, there is now enough of a critical mass of new knowledge to make its documentation and synthesis a worthwhile endeavour. Its coherent compilation and diffusion in the form of a Guide would not only solidify what has already been developed, but it will provide a fertile reservoir for new knowledge to be channelled into.

Accompanying these statistical developments, there has been an explosion of interest in ICT measurement, primarily due to the linkages that are being made between ICTs and development. This interest is manifested by events such as the UN World Summits on the Information Society and make production of a Guide even more opportune.

Therefore, the objective is to capture the new knowledge and produce guidelines for measurement which can assist in the application of consistent concepts, classifications, definitions and methodologies for international harmonisation of ICT statistics and analysis. The work will primarily draw on work done by the WPIIS in setting statistical standards for ICT measurement. However, it will also draw on actual country experiences and would be useful for all countries interested in such measurement – whether they already have measurement programs in place or are just contemplating starting them.

The production of a Guide as proposed will assist in accurate diffusion of WPIIS material and better coordination of statistical efforts in this field. It will be accessible to countries just embarking on ICT measurement, allowing them to benefit from the lessons learned by the pioneers in this area of statistics. As well, we all stand to benefit by opening up the area to contributions from new sources and fresh thinking.

3. Users

The user community for this proposed Guide is potentially diverse but probably the most important users will be statisticians who are, or expect to be, involved in actual measurement of aspects of the Information Society.

Analysts who interpret the statistical information provided by statisticians will also benefit by having insights into the standards which underlie that information.

Less directly perhaps, policymakers and governments are members of the user community for the proposed Guide. They were quick to try and find appropriate responses to the new developments associated with ICT and form a very big part of the demand for information.

Businesses are also likely users. More than ever, in a period of widespread technological evolution, benchmarking is important as a means to assessing comparative performance and strategy. This is true both at the industry/activity level and the firm level.

International organisations and donors are now in the midst of all kinds of initiatives for the Information Society, as the link is being made between ICTs and development. Their information requirements are twofold: first, to assess realistically the relative situation of countries in their basic components, including unequal distributions within countries, and; second, to monitor progress and the impact of investments over time, as the importance attributed to accountability increases.

Researchers in every discipline are very active in this new area too. In particular, those involved in measuring ICT will benefit from the dissemination of statistical standards.

4. Scope and contents

Current thinking on the structure and content of the proposed Guide is shown in the table below. It should be noted that this reflects the actual and proposed work of WPIIS at the current time - it is quite possible that the scope will broaden as new areas of measurement evolve further. It is also possible that the structure could change somewhat following further debate on the proposed Guide by the WPIIS and interested users.

Component of the proposed Guide	Broad content
Opening material	Including table of contents, abbreviations etc.
Introductory material	Users, rationale, conceptual framework etc.
ICT products	Definition, ICT goods, ICT services
ICT infrastructure	At various levels, e.g. national, business, household
ICT supply	Entities producing ICT goods and services, patenting activity, trade etc
ICT users	Businesses, households/individuals, governments and their activities including electronic commerce
Electronic content	Issues and possible approaches to measurement
Other factors	For instance, education and skills

Component of the proposed Guide	Broad content
Annex 1: OECD standards for ICT statistics	Agreed standards covering definitions and operational guidelines, classifications and model questionnaires (on business and household use of ICT/e-commerce)
Annex 2: Output	A reference to internationally comparable OECD statistical output on ICT
Annex 3: Member countries	Experiences of member countries in measuring ICT. This annex could include information such as survey instruments, contact details, website links and main outputs.
Annex 4: Non-member countries	Overview of what non-member countries are doing in the field of ICT measurement, possibly including information on regional groups and their activities.
Closing material	Glossary and Bibliography

5. Process

Considering the scope of what is involved, the area of Information Society measurement can be overwhelming. The ‘building blocks’ approach adopted by WPIIS has proven useful in navigating through the labyrinth of statistical concepts and changing policy priorities. Important components are taken on and dealt with at different speeds in a step-by-step, pragmatic way.

Consequently, the Guide would be a reflection of work to date as well as a glimpse of what lies ahead. It should be seen as a “living manual” – in the sense that although it incorporates the current state of knowledge, it is open to receiving new components, as well as being subject to revision of existing ones.

6. The case of developing countries

One the most interesting recent developments in the Information Society has been the recognition of its importance on a global scale. As the link between ICTs and economic development is being made, the area is no longer the domain of a handful of OECD countries, but of every interested country on the planet. Obviously, this extends to international organisations closer to development, including UN bodies.

The task at hand is long-term in nature and far from trivial. As all stakeholders try to identify and choose among ways to cope with what amounts to a very complex reality, they too realise the need for measurement. This is particularly the case with respect to many less developed countries.

While the problems are many and they include the state and capacity of statistical infrastructures, and budgetary constraints and/or trade-offs, at least the issue of know-how can be addressed. In that sense, it is incumbent upon those who have travelled down this road to assist. At the very least, statisticians in countries who are yet to initiate ICT measurement should not have the company of an empty shelf, as their counterparts did a few short years ago, with all that this entails. On the contrary, they should have the benefit of a ready resource – at least to the extent that its components exist. In addition to obvious benefits, it will immediately increase the value of the produced output as it will meet the requirement of international comparability.

Special needs for developing countries are said to exist. While the need for adaptation may be true, there are no compelling reasons why the main body of conceptual and definitional information produced by WPIIS would not apply reasonably well to all countries. For example, it is likely that the definition of the ICT sector, the definition of e-commerce or the classification of ICT commodities can be applied to countries at different stages of development.

7. The plan

The OECD is leading the initiative to develop a Guide as described in this paper. The process will be a consultative one, including member states as well as interested non-member countries and organisations. The plan is to prepare a draft of contents for the annual WPIIS meeting in the spring of 2004 and, following further consultation with member states, produce a draft document by the time of the 2005 WPIIS meeting – all along with the view to deliver a Guide in time for the Tunis meeting in 2005.