Preface to the Focus Theme Section: ‘Inclusive ICT Business’

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INTRODUCTION

Inclusive ICT business can be defined as doing business with ICT-enabled products and services that are aimed at or take into account the market of persons at risk of social or economic exclusion. These persons include many elderly people, persons with disabilities, groups with a low income or education among whom a growing number of marginalized youngsters, persons living in remote locations or in disadvantaged parts of the world, and also many immigrants and cultural minorities. These groups comprise an important part of the population in the world in general. Even if we limit ourselves to developed economies it is estimated that about 30–40% of the population is at risk of social or economic exclusion combined with digital exclusion. Even though per capita income for many of these persons is less than that of the average of the population, aggregate spending power is significant. For example, elderly people represent in terms of income and accumulated wealth in Europe alone some €3tn ($4.5tn).

ICT is increasingly important or even essential for the daily life of these persons: to receive education; to find work; to run a small business; for entertainment; to continue living independently in old age; and for social contact. Indeed, many of the ‘excluded’ are avid ICT users in particular of mobile phones. Generally, however, they tend to lag behind in access to and use of the Internet and in the depth of usage of ICT for personal advancement, i.e. there is a considerable digital divide. A 2007 report by the European Commission found that social/economic exclusion tends to reinforce digital exclusion and vice-versa. Breaking that vicious cycle is an important public policy objective.

Despite the apparent potential the question is whether there really is a ‘market’ for inclusive ICT business? Are companies interested and actively addressing this market? And are products and services technologically feasible? Tentatively the answers to these questions are positive, though with caveats.

As regards the demand side there are conceptual challenges to define, classify, understand and segment the ‘market’. As regards the supply side there are technological, design and marketing challenges to provide fit-for-use, marketable products and services. There is the challenge to establish viable business models involving the many parties that may make up the value chain. This can be additionally complicated by social or health rules and regulations. And
often there are market entry barriers that have less to do with the forces of competition than with the high degree of demand and supply side fragmentation.

A systematic approach to inclusive ICT business does not yet exist. A number of general observations can be made at this stage.

First, inclusive ICT business, as an emerging theme in terms of business strategies and research, is in need of a common and clear terminology. The field is still largely open for classification work to structure research and business activities. Second, a number of issues of inclusive ICT business (and ICT for inclusion in general) appear to be qualitatively different from those traditionally researched in the field of electronic business:

- Users are not necessarily buyers; the market is often being intermediated by professionals or family (e.g. for care of the elderly). Often users as buyers are replaced by governments or semi-public agencies providing services under public regulation. That is, rather than direct consumer markets these are quasi-markets as described in Le Grand (2003).
- User needs are much more challenging than those of the average citizen, e.g., frail aged persons require extremely easy-to-use ICT, zero-maintenance. Needs are also highly diverse. ICT companies find that inclusive ICT requires the design of new technical and process architectures, rather than 'just' an extension of existing solutions.
- From a technological perspective the finding is that inclusive design often leads to an overall better design, i.e., inclusive products are also better for the average user (design-for-all) and easier maintained. Inclusive design, while being far from trivial, can thus become a key factor in competition.
- Due to the diversity and complexity of user needs inclusive ICT business is a fertile ground for open and collaborative innovation, and for combining global platforms with local customization.
- Value chains often involve both private and public parties, necessitating innovative business models. Business models usually center around the definition and identification of value, which takes on different meanings for each of the actors. ICT-enabled (re-)organization of value networks is even more a research theme than in other public interest areas such as e-government.
- Market growth can be achieved vertically (deeper) through globalization, standardization, interoperability, product differentiation and value added services. However, horizontal growth (extension) is also a huge opportunity through mainstreaming inclusion, that is, making inclusion considerations part of regular product and service design, development, marketing and delivery. This is a radically different philosophy to strategic business development, based on the premise that the ‘market of the average’ is a subset of the ‘market of all’.

Third, inclusive ICT business as a research theme has to address not only traditional business objectives of profit-maximization or market share, or more widely, competitiveness and economic growth, but also objectives of personal quality of life, realization of rights, and more widely, social justice and equity. There is a wide research space to be explored about divergence or convergence between business and social welfare objectives in ICT for inclusion.

Fourth, as illustrated before, even if small today, the potential of inclusive ICT is likely very large in terms of business turnover, with equally large benefits for society, for example by reducing cost of care, productivity growth and more efficient public services. Moreover, inclusive ICT business will increasingly be a global business (e.g. the population is ageing all across the world). Further quantitative market and economic research should be undertaken.

THE LEAD OPINION PAPERS

A unique feature of this issue of ‘Electronic Markets – The International Journal’ is the set of opinion articles by well-known and respected business leaders from the ICT field. Their contributions illustrate the importance that these leading companies (BT, Deutsche Telekom, Intel, and Nokia) attach to digital inclusion. They also identify important themes for research in inclusive ICT business: designing for innovative ‘zero-training’ user interaction; design-for-all and mainstreaming; 100% support-free ICT-enabled products and services; unlocking sub-critical markets through aggregation and globalization, standardization, open innovation and stimulating the creativity of local initiative; private-public cooperation in order to realize sustainability, and the large business potential of digital inclusion versus digital and social/economic divides related to income, access to ICT, e-accessibility and knowledge.

Interestingly, companies look at inclusive ICT business not only as an external market opportunity but also as an internal issue to maintain a high-quality and motivated workforce. What generally transpires from the contributions of these business thought leaders is that societal and business objectives can quite well be pointing in the same rather than opposite directions – provided one is willing to take the longer-term perspective to inclusive ICT business.

THE RESEARCH PAPERS

Reflecting the fact that inclusive ICT business as a research field is still nascent, a limited number of papers were received. Some unfortunately had to be rejected because, while reporting on research on relevant inclusive ICT solutions, the business and market
dimensions of these solutions had not yet been sufficiently explored. The accepted papers set out to provide initial frameworks for further analysis. Some papers address more in-depth innovation challenges that are specific to persons with disabilities. Also, given that ICT for inclusion is such a wide field and there is such a wide range of factors of social and economic exclusion, many topics are left unexplored. There is plenty of opportunity for future research!

The paper by Cabrera and Özçivelek addresses the important field of ICT for independent living of elderly people. Points raised include the need for personalization and contextualization given both diversity of personal needs and the diversity of historically and culturally determined social and health care service contexts. The paper also raises the issue of ambiguity of terminology.

The paper by Becker et al. seeks to understand inclusion/exclusion with respect to online public services. It provides a framework to analyze the gaps in e-government and e-commerce usage observed for senior citizens, citizens with low education, persons living in thinly populated areas and the unemployed.

The paper by Wheeler and Kreps on user testing of web-accessibility makes the point that – in this case – it is still necessary to combine objective measurement and standardization with more subjective user assessment, to arrive at acceptable fitness for use and at effective, feasible standardization.

Note
1. This paper expresses the personal views of the author and in no way constitutes a formal or official position of the European Commission.

References