Digital Divide and e-Readiness: Trends and Gaps

Mohammad Reza Hanafizadeh, Research Institute for ICT, ITRC, Tehran, Iran
Payam Hanafizadeh, School of Management & Accounting, Allameh Tabataba’i University, Tehran, Iran
Erik Bohlin, Department of Technology Management and Economics, Chalmers University of Technology, Gothenburg, Sweden

ABSTRACT

This paper reviews the literature on digital divide and e-readiness in different fields with an eye to identifying trends and gaps in prominent research areas. In this study, 411 articles, conference papers, master’s and doctoral dissertations, textbooks, and working papers on digital divide and e-readiness are classified and elaborated and their results are presented. Drawing upon this literature review and analysis of digital divide and e-readiness, several important research areas surrounding digital divide and e-readiness are discussed and examined from a critical standpoint. In the paper, a comprehensive list of references is presented and, to the best of the authors’ knowledge, this is the most complete study of digital divide and e-readiness, even in the field of IT, in terms of its references. This paper reviews the literature on the digital divide and e-readiness from three perspectives with the purpose of identifying trends and gaps in this field: definition, methodology, and scale. This review reveals that most modelers do not take sound theoretical and policy concerns into consideration, rather they tend to provide an empirical summarized measure for digitalization. Also, they develop digital divide and e-readiness models by building static composite indexes from individual indicators and tend to apply dynamic models to a lesser degree. Finally, there is a lack of research in the micro level vis-à-vis macro level that the authors attempt to compensate for.

Keywords: Composite Index, Digital Divide, E-Readiness, Information Society, Trends

1. INTRODUCTION


After this the digital divide became a common term in the US and it has been used widely by bureaucrats, legislators, activists and scholars since the mid-1990s. In the meantime,
the development of the information society has also become an important priority for many other countries, including those of the European Union (EU). Eventually, digital divide achieved recognition as an English colloquial term in dictionaries such as ‘The Australian Concise Oxford Dictionary 4th edition’ and ‘The Penguin English Dictionary 2nd edition’.

It has taken its place in the ICT and development literature and is coming of age. It is now generally assumed that bridging the digital divide is inextricably intertwined with social, economic and political development (Mutula, 2008). However the first step in any approach to the digital divide problem is to consider a country’s ability or “readiness” to integrate information technology (IT) and e-commerce in order to provide a baseline that can be used for global and regional comparisons and planning (Hanafizadeh, Hanafizadeh, & Khodabakhshi, 2009b). It is essential to understand what it means for a country or economy to be “e-ready” and to conduct an evaluation based on objective criteria in order to establish basic benchmarks (Hanafizadeh, Hanafizadeh, & Saghaei, 2011). Therefore, if a country is to narrow the digital divide, an understanding of where that country currently stands vis-à-vis the information society must be achieved, which is called “e-readiness” (Hanafizadeh et al., 2011).

In this paper, we view the digital divide and e-readiness from three perspectives: definition, methodology and scale. In each perspective, research trends are reviewed and classified and, based on this review, gaps in them are identified. Consequently this paper wishes to address current, widely diffused, measurement instruments with the purpose of identifying trends and gaps in digital divide and e-readiness research.

2. RESEARCH METHODOLOGY

This survey is based on a study of digital divide and e-readiness articles, conference papers, master’s and doctoral dissertations, textbooks, working papers and other valid and reputable documents. The literature search was based on the descriptors “digital divide” and “e-readiness”. Considering the nature of the research on digital divide and e-readiness, it would be difficult to group the literature under any specific disciplines. The first scholarly papers focusing on digital divide and e-readiness appeared around 1997 (Katz & Aspden, 1997) and were followed by a growing series of publications (Vehovar et al., 2006). However before that date, researchers conducted research in this area not as studies of digital divide and e-readiness but as examinations of factors affecting the development of ICT.

Nowadays digital divide and e-readiness are two of the major concerns of many scientific journals and conferences. However, it was found that no previous study had identified and ranked the published outputs of research on digital divide and e-readiness. Figures 1 and 2 show distribution of articles by journal and year, respectively.

Figure 1 shows that Information Society includes by far the most articles related to digital divide and e-readiness. It is a quarterly journal specifically devoted to analyzing the impact, policies, system concepts and methodologies related to information technologies and changes in society and culture.

Figure 2 indicates that the total number of articles published on digital divide and e-readiness is ascending. According to this figure, since 2002, researchers have paid special attention to these themes so that a significant increase in number of articles can be observed in this particular year.

Digital divide and e-readiness journals can be found in four categories of subjects:

- Business collection;
- Social and behavioral sciences;
- Electronics and telecommunications collection;
- Engineering, computing and technology (see Figures 3 and 4).

As seen in Figure 3, since digital divide and e-readiness are multidisciplinary subjects
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