Gender and IT in the Concept of Sustainability

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THE GLOBAL DIGITAL DIVIDE

New information and communication technologies are radically transforming the way that information and knowledge are disseminated and shared around the world. The digital divide between rich and poor countries is still persisting: more than 70% of the world's Internet users are based in Europe and North America, where—in addition—more than 90% of the data on Africa are stored. Similar gaps persist between urban and rural areas and between men and women, especially in developing countries. Rural women usually have less access than men to information and new technologies (Huyer & Mitter 2003). Lack of information and access to education related to IT also limits women's influence in their communities and their ability to participate in decision-making. When assessing the opportunities and risks of new technologies, it is essential to give attention to gender differences and to ensuring that women's voice is heard so that technological developments can be sustainable in the way that best prevents them from increasing inequalities. Particularly gender factors are crucial to develop a sustainable concept of IT evolution. Our aim in this article is to show how the concept of gender and IT can be integrated in a wider conceptual framework of sustainability. First, we will explain the concept of digital divide from a global perspective and the importance to understand the gender dimension within this conceptualization.

Concerns about the disparities between industrialized and developing countries, especially with respect to Internet access and use, have touched off a worldwide debate about the existence of a global digital divide. From a domestic perspective at a national level or even at a regional level thinking about the European Union for instance, the term digital divide has shown to have powerful symbolic weight, and hence to be a useful tool with which to mobilize political support for government programmes designed to bridge the gaps between so called "information haves" and "information have-nots." The OECD defines the "digital divide" as "…the gap between individuals, households, business and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities. The digital divide reflects various differences among and within countries." (OECD, 2001, p. 5). Access to information and communication technologies is considered as the first stage to become an "information have." However, access is not limited to the infrastructures: an important factor contributing to the digital divide is the extended and hegemonic use of English as access language in the Internet. This is one of the reasons for instance, why the Hispanics in the USA a lower access to the Internet show as Wilhelm (2000) argues. Moreover, even among "information haves" or in other words, among those having access to information through information technologies we can observe digital gaps. DiMaggio and Hargittai (2001, p. 4) refers for instance to the ability to evaluate the quality of information: "By 'digital divide,' we refer to inequalities in access to the Internet, extent of use, knowledge of search strategies, quality of technical connections and social support, ability to evaluate the quality of information, and diversity of uses." This aspect is particularly related to the inequalities according to the educational level of the "information haves." Furthermore, when carried to the international level, the term "digital divide" arguably misconstrues the issue and is unduly pessimistic. For example, the term directs our attention to relative inequalities in the distribution of information age resources, when what really matters to the quality of life in a given country is its absolute level of resources and the efficacy of the institutional order in redistribution and social justice. Qureshi (2005, p. 1) refers to the results of a recent study about the digital

divide showing that "it is access to information, services, and expertise through access to the network, combined with ICT skills that contribute to economic growth and a decrease in this gap." Instead of fixating on the existence of a divide, it would be far better to focus our attention on the "global digital opportunity," because that is what really confronts us today, an unprecedented opportunity to move swiftly up the path towards global digital development. From a gender perspective, it is important to improve the access of women, particularly women in underdeveloped countries and rural areas to knowledge and information through IT, but it is also important that women participate in the design and production of IT. We argue that the digital divide must consider also the gap regarding IT shaping. Shaping IT means nowadays in much extent shaping society and nature and thus we plaid for a concept of sustainable information society with a participatory approach that allows the integration of excluded perspectives and moving beyond consumerism fixations taking local voices and the co-evolution of nature and society as a point of departure. Particularly women's perspectives excluded in great extent through gendering processes must be taken into account as they reinforce other embedded inequalities factors such as education or age. Understanding gendering processes within the shaping of IT and society is crucial in the concept of sustainable information society. However, IT development constitutes also a complex co-evolution of nature and society in different world regions. Particularly sustainability scholars have attempted to define these both basic co-interacting spaces. In the next section, we show an overview of the basic assumptions of sustainability that have lead to a more focused concept of sustainable information society.

THE CONCEPT OF SUSTAINABILITY AND THE INFORMATION SOCIETY

The concept of sustainability addresses basically a balance of society-economy-environment interactions. It assumes that there exist limits to which the earth's ecosystems can sustain disruption, without, in turn, causing injury to human health, social and cultural systems, and economic interests. The concept of sustainability thus attempts to define both, environmental conditions contributing to a healthy and stable human existence, as well as activities that while not limiting our evolution to more sophisticated and justice living conditions, can help us to create such conditions. However, moralistic and normative issues of intergenerational and global equity drive to some extent sustainability discourses. According to the definition of the World Bank Institute, global equity refers to equal opportunity for livelihood and development across the world while intergenerational equity focuses on the balance of potential and opportunities for livelihood and development between future and current generations (World Bank Institute, 2000). This assumption represents a common perspective among scholars over the past two decades, although the diversity of sustainability theories.

Rachel Carson's book "Silent Spring" (1962) constitutes the base of what we call today the sustainable development movement (International Institute for Sustainable Development, 2002) which Garret Hardin (1968) in his classical article "Tragedy of the Commons" developed. Since then many different definitions of sustainability have been developed (Neumayer, 1999; Rees, 1995). However, most scholars refer to the 1987 Brundtland Commission definition of sustainability as a departure point: "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland 1987, p. 41)[1] This definition of sustainability presented by the Brundtland Commission (WCED, 1987) implies a subdivision into social, ecological, and economic dimensions. This tridimensional conceptualization of sustainability has been however extended including additional dimensions, as it is the case in the concept of Jacob (1996), who departing from the theory of science defines the different aspects of sustainability as being social, economic, political, and cultural. Other authors plaid also for the consideration of cultural dimensions (Kuhlen, 2004) or include an institutional dimension (Schneidewind, 2001) in the original triangle of sustainability. A related subdivision is used at the Wuppertal Institute, who has formulated a "Prism of Sustainability" (Spangenberg & Bonniot, 1998) with