The digital divide refers to the disparity between those that have access to information and communication technology (ICT) and those that do not.

Conceptual Overview

The National Telecommunication and Information Administration's (NTIA) reports commissioned in the late 1990s and the early 2000s were tasked with capturing the digital divide. These documents were arguably the impetus for the increased attention on this topic. The initial reports in the series and much of the early discourse on the digital divide consisted of assessments of who had access to telephones and personal computers (PC). The discussion has evolved to examinations of how those individuals that do have access are able to exploit advanced ICT.

According to Bagchi in 2005, current research on the digital divide falls into three categories: (1) comparisons between individuals (i.e., within a single nation or between countries), (2) investigations of specific technologies, and (3) examinations of changes in the divide (i.e., growth or shrinkage). The digital divide is commonly characterized as limited access to technology based on factors such as race, socioeconomic status, gender, age, geography, and education. It is assumed that these individuals choose to have access to ICT but are unable to because of circumstances beyond their control. However, there are those that either do not see the value in technology or may fear technology and prefer to remain “isolated.” In either instance, the presumed effect is that portions of society are unable to fully participate in the global economy and therefore are likely to have a lower standard of living.

Researchers also examine diffusion rates of specific technologies (i.e., telephony, PCs, and wireless) to measure the extent of the digital divide. Studies suggest that the lack of these technologies within certain segments of society quantifies the divide. For example, the limited diffusion of telephony is suggestive of a gap in ICT usage given that dial-up access is seen as a common entry point for the Internet. Conversely, the increase in the diffusion of wireless technology may compensate for the shortcoming of telephony access. Wareham, Levy, and Shi recently proposed that data-centric mobile services offer more opportunities to link the disconnected than do the more prevalent voice-based mobile services.

The two contrasting viewpoints associated with changes in the digital divide are (1) suggestions that the gap is a somewhat permanent phenomenon and (2) opinions that the disparity is temporary and its effects transitory. Gorski in 2003 suggested that the former group references statistics that indicate the disparity between the digital “haves” and “have nots” is exacerbated by corporate indifference and governmental decreases in spending priorities. They propose that public policy initiatives may redress the disparity. Advocates of the latter position suggest that market forces eventually address any inequities in ICT infrastructure and access. For example, Grantham and Tsekouras feature statistics showcasing increasing PC ownership, Internet usage, and the growth of wireless technology as indicators that the discussion should be about the “have nows” and “have laters.”
Critical Commentary and Future Directions

Scholars continue to add to our comprehension of the digital divide’s individual-level effects. However, organizational-level and societal-level impacts are less well-known. In particular, insight into organizational effects is warranted. Areas such as the diffusion of online services, public policy initiatives directed at bridging the divide at the organizational level, and the contextual environments (i.e., competitive and partnering) that may exacerbate or lessen the disparity are currently under investigation. Future research should also examine decision making (whether at the individual or organizational level) and its impact on the digital divide. In particular, little is known about the impact that strategic managerial decisions have on individuals, businesses, or on the population at large.

An array of theoretical foundations contributes to our understanding of the digital divide. Specifically, diffusion of innovations may offer explanations of the behavioral processes associated with ICT dispersion. The sociology field is arguably the most active in investigating the societal phenomena associated with the disparity. Economics is yet another field that may offer explanatory models of when and how technology is adopted among individuals, organizations, and social systems. Theoretical perspectives from information systems (IS) may offer insight into possible technical design factors (i.e., user interfaces) of specific ICT and its impact on the divide. Of particular interest is the public policy perspective in which policies are enacted to address the digital divide. Continuing to employ multiple theoretical perspectives and research methodologies will inform our understanding of the causes of the digital divide and its impact on individuals, organizations, and society.

As society increasingly values knowledge and information, and where technology is the means for access to and control of these assets, individuals that lack the ability to use and exploit ICT risk becoming “invisible” in a world of the technology literate. To gain a better understanding of the digital divide and its effects, discourse on the subject must extend beyond counting the number of communication lines and PCs purchased. In short, the digital divide is an area that is ripe for further examination and holds many areas of interest for scholars and practitioners.

See also

Information and Communication Technology

Further Readings

APA

Chicago

Harvard

MLA