

Chapter 15

Inequalities of Digital Skills and How to Overcome Them

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ABSTRACT

This chapter focuses on the differential possession of digital skills. Here, four types of Internet skills are distinguished: operational, formal, information, and strategic skills. These types are measured in a number of experimental performance tests among a cross-section of the Dutch population. The tests focus on the use of online government information. The main result of the experimental test is that the average Dutch population performs fairly well in operational and formal Internet skills but much worse in information and strategic skills. However, there are significant differences between people with different age and educational background; no gender differences have been observed. The final sections of this chapter deal with ways to overcome these differences of skill. Two main strategies are discussed: improving the information provision of government Web sites and improving the digital skills of citizens or users by all kinds of educational means.

INTRODUCTION

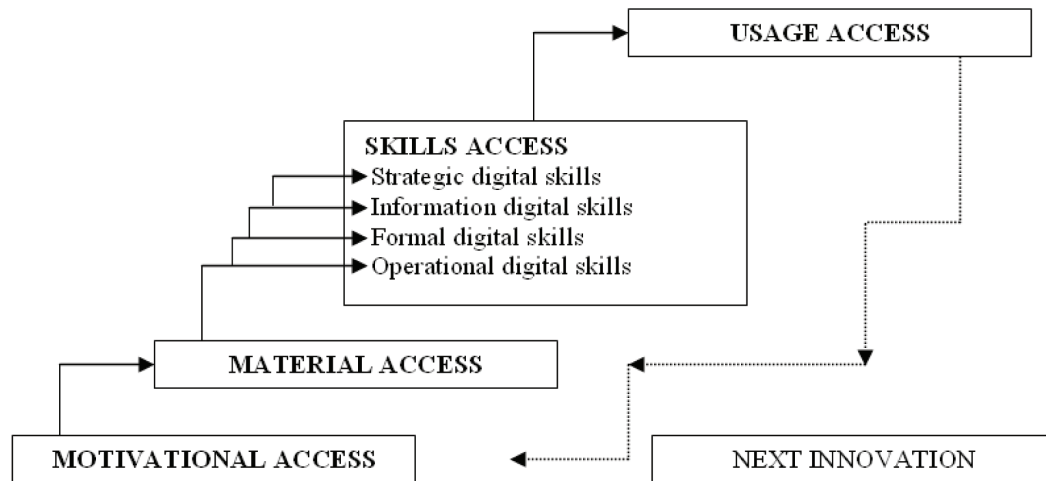
The First and Second Order Digital Divide

A central issue on the scholarly and political agenda of new media development is the gap between those who have and do not have access to computers and the Internet (Van Dijk 2005, 2006). Obviously, this

issue is highly relevant for citizen participation and government information provision because they are assumed to be accessible for all. The split between the ‘haves’ and ‘have-nots’ of new media use has most often been framed in the term ‘digital divide’. For a long time the prevailing research approach mainly focused on a binary classification of access: having physical access to computers and the Internet or not. After the year 2000 a more refined understanding of the digital divide has appeared that is sometimes called the ‘second order digital

DOI: 10.4018/978-1-60566-699-0.ch015

Figure 1. A cumulative and recursive model of successive kinds of access to digital technologies. (Source: Van Dijk, 2005, p. 22 with the adapted range of digital skills from Van Deursen & Van Dijk, 2008)



divide'. It goes beyond the (first order) binary classification of physical access and concentrates on the skills to use digital media and on their usage (e.g., DiMaggio & Hargittai, 2001; Mossberger et al., 2003; Van Dijk, 2006; Van Dijk and Hacker, 2003).

Van Dijk (2005) has provided a framework and model of both the first and second order digital divide making a distinction between four successive types of access that tend to recur with every new medium or innovation.

This succession of types of access was elaborated because media or technology access should be seen as a process with many social, mental and technological causes and not as a single event of obtaining a particular technology (Bucy & Newhagen, 2004; van Dijk, 2005). In this model material access was preceded by motivational access and succeeded by skills access and usage access. When the full process of technology appropriation is completed, according to this ideal scheme, a new innovation arrives and the process starts again, wholly or partly.

The concept of material access comprises physical access and other types of access that are

required to reach a complete connection and every content it has to offer such as conditional access (subscriptions, accounts, pay-per-view). The concept skills access was divided in three types of skills that often assume the following order: first a computer user has to acquire operational skills, than s(he) has to develop and apply information skills and finally strategic skills (the capacity to use computer and network sources as means for particular goals in society). Van Deursen & Van Dijk (2008) proposed an adapted version of this succession of skills. They introduced a new type of skill between instrumental (or operational) and informational skills: the formal skills needed to use a medium such as the Internet: the skills needed for browsing and navigating.

Usage access is the final stage and ultimate goal of the process of technological appropriation in the shape of particular applications.

Focus of This Chapter

In this chapter we will focus on the **differential possession of digital skills**. We will start by making an extensive and detailed operational definition

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