Chapter 1.1
Services, E-Services, and Nonservices

Anders Henten
CMI, Aalborg University - Copenhagen, Denmark

EXECUTIVE SUMMARY
This chapter examines the provision and co-development of electronic services, content, and applications at the conceptual level. There is focus on the provision of services electronically (e-services) and the development of user-produced electronic content and applications (nonservices). The chapter points at codifiability, digitization, and interpretation as three crucial conditions for the development of e-services and nonservices. Codifiability is the basic prerequisite, but even if knowledge is codifiable, it does not necessarily follow that it can be entirely digitized or that it will be interpreted in the same manner in different contexts. Regarding implications, an important issue is whether the development of e-services and nonservices leads to specialization and/or convergence in the production and marketing of informational services. Is there reason to anticipate that the production and marketing of informational services will develop differently from other production areas with respect to the implications of technology on the combination of specialization and convergence?

INTRODUCTION
The research issues examined in this chapter are what the major conditions for the development of e-services and nonservices are and what the implications are with respect to specialization and/or convergence in the provision and development of e-services and nonservices. The starting point of the chapter is to define services in order to be able to discuss what e-services and nonservices are. Following these definitional sections, the conditions for and the implications of the development of e-services and nonservices are discussed. The conditions are related to the codification of informational services, as these are the types of services that can be entered on digital media and transported on communication networks and constitute the services in question in this chapter. The implications are discussed in relation to the organizational changes, which, on the one hand, will result from the development of e-services and nonservices and, on the other hand, may also be important preconditions for their growth.
BACKGROUND

During especially the past two to three decades, services have increasingly come to the fore in social sciences. Consequently, discussions on the concept of services have erupted time and again, from Hill (1977) to Chesbrough and Spohrer (2006). The present chapter, however, does not venture into a long-winded definitional exercise of the service concept but stays with the basic definition of services. In contrast to goods, which can be separated from the immediate producers and sold on an anonymous market, services are not anonymous (Henten, 1994). Consumers will know who the immediate producers are (or will at least have the possibility to do so). It is often said that services are produced and consumed simultaneously and, therefore, require face-to-face contact between the producers and the consumers in the production/consumption phase. This may not always hold entirely true, but the consumption will at least start right after the end of production – as in the case of repair work.

The basic definition of services has nothing inherently to do with whether the product is material or immaterial. The repair work of a plumber, for instance, is material in nature, but is a service. Indeed, information and communication technologies (ICTs) affect all kinds of goods and services with respect to their transaction on the market (e-business). However, in the case of data, information and knowledge services (informational services), it is the service itself which is affected. With ICTs, it is possible to enter data, information and knowledge (to the extent it can be codified) on digital media and use communication networks for transportation. This means that data, information or knowledge services increasingly can be separated from the immediate producers and sold on anonymous markets. They become goods in a sense. Formerly, paper was the primary physical medium for turning informational services into goods. Presently, electronic media increasingly dominate.

At the same time, for some categories of goods, producers seek to customize their products to meet the individual choices of customers (Sundbo, 1997). One of the most heralded examples is Dell and their use of Internet to receive information from customers regarding their specific computer configuration choices (Dell, 2000). Furthermore, a wide variety of services surrounding the goods, e.g. after sales services and information services, are developed in order to provide a better customer experience and a more personalized/customized environment. Nevertheless, most goods will remain mass-produced and maintain their anonymous character.

To the extent that this develops, it could be claimed that there is a degree of convergence between goods and services enabled by the use of digital communications. As always, there is no sharp and unequivocal dividing line between goods and services. The most important thing in the context of the present chapter, though, is the trend regarding informational services to acquire elements of the basic characteristics of goods concerning separation from the immediate producers and anonymity.

SETTING THE STAGE

E-Services

Having briefly discussed what services are, we now turn to e-services, i.e. electronic services. One of the first academic papers defining the term e-services was written by Tiwana and Balasubramaniam in 2001. In this paper, they define e-services:

We view e-services as Internet-based applications that fulfill service needs by seamlessly bringing together distributed, specialized resources to enable complex, (often real-time) transactions. Examples of e-services include supply chain management, customer relationship management, accounting, order processing, resource manage-