Chapter I

Service-Oriented Human Computer Interaction and Scripting

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Abstract

The emphasis of human-computer interaction (HCI) design on the technology and computer action tends to obscure consideration of the contribution of the computer interface to the service interaction. This chapter suggests that since a majority of commercial information systems support or provide services, the nature and progression of the service encounter should be a key concern of human computer interface designers. The chapter proposes the concept of service-oriented HCI in which HCI design is derived from service design, dialog is driven by customer needs and perceptions, activities that have led up to the service encounter are considered, and the service interaction dialog is aligned with the computer
dialog. As part of service-oriented HCI, the chapter illustrates the use of scripting to examine ex-post the role of a computer interaction in a service encounter. It demonstrates that the computer dialog can drive the service interaction in such a way that the quality of the interaction is reduced and customer satisfaction affected. It concludes that the role of the computer system in a service interaction is an area for further research. Furthermore, script analysis may enable the development of human-computer dialogs that meet some of the criteria of service-oriented HCI.

Introduction

Computer systems play a prime role in the support and delivery of services. For many systems their main role is in enabling service encounters between customers and providers. In health care, the role of the information system is service-oriented, supporting a range of service encounters between clinicians and patients. In many financial services, information systems support the call centre, providing the framework within which the operator and customer interact. In retailing, information systems underpin every aspect of the industry, whether taking orders, dealing with transactions or organising the warehouse. Additionally, the information system may replace the human service provider, rather than just supporting the service encounter. ATMs, self-service airline ticket dispensers and Internet shopping sites represent services entirely delivered by the computer. Here the service encounter is purely between the computer and the customer.

Since many, if not most, information systems are delivering or supporting a service, the study of the service encounter is key to the development of the human-computer interface. If the computer system is supporting a service encounter, it must be in tune with that service encounter. It must deliver the required information at the correct point in the encounter and should not dictate the progression or outcome of the encounter. Design of the HCI should be derived from an understanding of the service interaction. In many cases design of the service, using, for example, a service blueprint (Zeithaml & Bitner, 2003), should precede the design of the computer system and its human interface. Rather than a focus on data and data presentation, the focus should be on the progression of the service encounter and the progression of the dialog. Since information systems are often primarily service-oriented, HCI
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