Chapter 1

Consumer Information Systems Development: Challenges for Cross-Disciplinary Research

Tuure Tuunanen
University of Jyväskylä, Finland

Michael D. Myers
The University of Auckland, New Zealand

Harold Cassab
The University of Auckland, New Zealand

ABSTRACT

We suggest that a new type of information system appears to be increasing in importance, that of consumer information systems. Compared with traditional information systems development approaches, where the focus is on improving the efficiency and effectiveness of organizational processes, design for consumer information systems focuses more on the enjoyment, pleasure and purchases of the consumer. We argue that the shift in focus from users to consumers in consumer information systems calls for a significant re-appraisal of our current information systems development methods. Hence, this chapter proposes a new research agenda for IS researchers focusing on the development of consumer information systems. We plan to pursue this agenda by primarily using design science research, supplemented by other research methods as needed. The expected contributions include new insights into effective management processes for service design, a better understanding of issues of integration of information systems development practices used to develop consumer information systems, and the development of methods for requirements discovery for service innovation. These three components aim to contribute to a holistic evaluation of consumer information systems.

DOI: 10.4018/978-1-4666-4082-5.ch001
INTRODUCTION

We believe we may be entering a new era of Consumer Information Systems (CIS). Until now most information systems have been developed to improve the efficiency and effectiveness of organizations. However, the rationale for the development of CIS is different: it is to facilitate the enjoyment and pleasure of the consumer. A consumer is defined by the Concise Oxford English Dictionary as:

1. A person or thing that eats or uses something.
2. A person who buys goods and services for personal use (Soanes & Stevenson, 2004).

As can be seen from this definition, the primary meaning of a consumer is of a person who “eats or uses something.” The secondary meaning is of person who purchases a service or product. Hence, it is possible for someone to enjoy watching a TV program (consume it) without having to pay for it. In this case, the TV program may actually be “paid for” (indirectly) by advertising. An alternative, of course, is for consumers to purchase TV programs directly (e.g. via a subscription service or pay per view).

It seems to us that the design and development of consumer information systems requires a change in the way we have traditionally thought about users (Lamb & Kling, 2003). Users have been conceptualized as mostly concerned about the effectiveness and efficiency of work processes. Consumers, on the other hand, are mostly interested in the enjoyment or pleasure associated with “consuming” a product or service. Users have been thought of as passive “users” of the system (as compared with “developers”). Consumers, by contrast, can be much more active in their use of a product or system. This is especially the case with the emergence of new internet-enabled multimedia services where consumers can become participants and co-creators of the television experience or “service”. Another difference between users and consumers is that of scale: the number of consumers potentially involved in the development process is very large. Finally, the concept of services (Grönroos, 2007; Menor, Takikonda, & Sampson, 2002) takes center stage (as opposed to the idea of creating a distinct IS software product). The focus shifts to innovating, designing and developing internet-enabled services.

This feature of co-creation of the service is facilitated by the social interaction between consumers and producers of services via different feedback mechanisms (such as Facebook-type services). The IP-Television concept, e.g. Joost.com, is one novel way to use the Internet to distribute on-demand digital programming in this fashion. Another example is Mobile Television that merges cellular phones with digital Television broadcasts and rapid feedback mechanisms, like texting. These technological changes are driving the market toward real Interactive Television systems, which will enable consumers not only to participate, but also to be part of the programming i.e. co-creators of CIS.

In this chapter, then, we propose a research agenda to investigate the challenges academics and practitioners are likely to face when developing consumer information systems. Our targeted case domain area will be Interactive Television Services. We review requirements discovery, information systems development, and service design literature, in order to develop a preliminary framework to drive the proposed research agenda. Finally, we discuss the potential contributions of this chapter to IS research and practice.

CONSUMER INFORMATION SYSTEMS: CHALLENGES FOR RESEARCH

An information system is often defined as the interplay of technology, software and people with the purpose of storing, distributing and communicating information. Others have described an