ICT-based or ICT-centric?
Embodiment and Cognition in a Service Recovery of a Web Service Encounter

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ABSTRACT

Through a logbook-based self-observation of an ICT-based service journey, the failure and the co-created recovery of the ICT-based service encounter is analysed. The analysis shows the limitations of both traditional affordances-based analyses of user interaction, as well as Dourish's (2001) 'embodied interaction' framework. Two new categories of service encounters are subsequently suggested: 1) 'cognitively dominated service encounters' that characterizes types of service encounters where the customer’s reasoning plays a central part in the service encounter, and 2) ‘ICT-centric’ service encounters that are determined by the inner structure of the ICT ‘material’ to the extent that the customer must adapt to logic of the ICT-system.

KEYWORDS


1. INTRODUCTION

Typically, when an ICT-based service encounter develops differently and less easily than anticipated by the customer / user, one would talk about the “low user-friendliness” or “bad design of the system.” Professional usability experts can conduct tests to identify problematic elements in the interactive system. When simple systems and simple interactions are in question this appears to be straightforward, but when we look at complex service journeys, the embodied context and the non-ICT based touch points must also be considered. This is particularly the case when the service journey develops into a co-creation of the service recovery involving human service helpers, the user and the ICT-system.

The starting point for this paper was an unexpected long service journey I had with the Danish tax authorities in the spring of 2015. The service encounter evolved into a co-creation of the service recovery as a blank pop-up window appeared instead of the expected online form for tax reduction claims. The service journey and recovery involved a web-based self-service, a family member, two browsers, two plug-in browser extensions (3rd party software), a login- / authentication service, and three service helpers on a phone-based hotline. I use this case here to first identify the limitations of traditional affordance-based approaches to usability. Secondly, I apply Dourish’s (2001) embodied interaction framework to not only overcome the limitations, but also to observe how this framework fails to capture essential elements in the service encounter.

Both affordance-based understanding of user interaction with ICT systems, as well as Dourish’ extension of this into ‘embodied interaction’ suffer from pursuing ideals that are difficult to reach in certain type of service encounters. Through the analysis of this case, we identify this type as
‘cognitively dominated service encounters.’ These service encounters are characterised by a high degree of reasoning taking place on the customer’s side during the service encounter. This leads to my suggestion of a distinction between the classic category “ICT-based service encounters” (Froehle & Roth, 2004, Sørensen & Henten, 2014) and a new category “ICT-centric service encounters” where the service encounter is being shaped by the properties of the ICT material, the embodiment of the service encounter in computer code.

2. THEORETICAL APPROACH

2.1. ICT-based Service Encounters

The field of service research, including service encounters, is broad and well established, as is research on e-services and service encounters when using these. One important discussion revolves around the nature of ICT-services. As they are embodied in software and hardware, they appear to be goods. However, the intangible cognitive nature of the customer encounter experience indicates service properties (cf.: Sørensen & Henten, 2014). This double nature of ICT services produces a number of tensions, which will be discussed below.

Much ICT service research applies the vantage point of traditional face-to-face service encounters. The technology is often seen as an element inserted into or added to the face-to-face encounter (cf. Bittner, Brown & Meuter, 2000; Froehle & Roth, 2004) implying that particular properties of ICT as material (cf. Löwgren & Stolterman, 2004) may not be acknowledged. However, in order to understand the special nature of the ICT-based service encounter, it is necessary to acknowledge the properties of the ICT design material – the potentials and limitations of computer code. An attempt to do so is suggested by Sørensen & Skouby (2015). They suggest viewing the entities ‘customer,’ ‘service provider’ and ‘ICT’ as three interconnected, but equally important entities. The customer has a relationship with the service provider (as institution, company or organisation), but there are also relationships between the customer (user) and the ICT, as well as between the service provider and the ICT. The claim is that the material ICT contributes to shaping the service encounter. Hence, the ICT is not a neutral tool, but an active agent. See Figure 1.

The formal similarities between service blueprints (Shostack, 1982) and computer code calls for the creation of ICT-based services. Zysman, Feldman, Kushida et al. (2013, 99) note that “[w]hen activities are formalised and codified, they become computable. Processes with clearly defined rules for their execution can be unbundled, recombined, and automated. The codification of service activities allows the rapid replication, analysis, reconfiguration, customization and creation of new services.”

One central question related to the vision of “the algorithmic revolution” that is not discussed by Zysman et al. (2013) is the degree to which actual service encounters matches specific rules. Harris & Henderson (1999) observe that there is often a big gap between the ideal and actual workflow. Computer systems – including ICT-based service encounters - are typically modelled after an idealised
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