

## Chapter 5

# A Socio–Technical Account of an Internet–Based Self–Service Technology Implementation: Why Call–Centres Sometimes ‘Prevail’ in a Multi–Channel Context?

**Rennie Naidoo**

*University of the Witwatersrand, South Africa*

### **ABSTRACT**

*Despite the rampant growth in technology-based service delivery options, the implementation of these contemporary forms of service channels continues to be risky and problematic for organisations. Current conceptualisations of IS implementation is rather narrow and highlights only particular aspects of this phenomenon. This paper adopts a socio-technical lens to enhance our understanding of the implementation of an Internet-based self-service technology (ISST) at a major South African healthcare insurance firm. Actor-Network theory’s (ANT) key conceptual elements of inscription and translation are used to describe how the design and use of this self-service technology emerged from the co-entanglement between the technological and social. Drawing from a field study, this paper demonstrates the complex interdependencies and interactions among contrasting social, political, economic and technological issues and therefore advances implementation theory for these contemporary service channels in yet another important way.*

## **INTRODUCTION**

The following statements were made by managers at a healthcare insurance firm, speaking about the challenges in implementing an Internet-based self-service technology (ISST):

*Initially it was just to be part of the space. And no one really could draw a more rational reason than that. You have got to be part of this play. The whole world was going to go online ... (CIO Health Systems, interview 36, pp. 1-2)*

*There was a lot of political wars ... you want to achieve your initial goals so to expose everything is sometimes not the best thing because you are selling something, when you are selling at that moment you are making a claim, and it does not mean that everything that you are selling is the best thing. It's a war in the beginning, it's a business war ... and like in any war the general cannot expose his strategy to the army at any stage, at least at the beginning ... especially in an environment like this if you want to achieve anything ... (Systems architect, interview 021, p. 9)*

*We tried to follow the industry standards and use what at that stage would have been best of breed technology offerings which we did but not without huge and consistent resistance from other key players ... (Community head, interview 49, p. 3)*

*You will always have more naysayers and prophets of doom than supporters. Identify the key stakeholders early and engage them. This does not mean become their friends but stay close to them understand their fears, their drivers and their influence and how they can possibly use this to interfere with your plans... . [Community Head, Interview 30, p. 9]*

Underpinning the experiences expressed by these practitioners is the view of a power-seeking strategist who, given this new “technology-based self-service” was “plotting” to change the world of servicing healthcare insurance consumers, by enrolling both key human and technology-based allies.

Despite the surge in “technology-based self-service” delivery options, ranging from on-site options such as in-room hotel checkout, and off-site options such as automated airline ticketing by telephone to Internet shopping, implementing these technologies is proving rather difficult for managers (Bitner, Ostrom, & Meuter, 2002). Understanding the strategies of key actors during the implementation journey of these contemporary technologies which radically alters the service encounter is crucial, yet has been a much neglected area. While the literature on implementation is replete with factor-based approaches, which aim to identify a group of variables relevant to ISST implementation outcomes (Naidoo & Leonard, 2007; Lang & Collen, 2005; Pandya & Dholakia, 2005; Zeithaml, Parasuraman, & Malhotra, 2002), some ISST researchers have been calling for the use of multiple theories, concepts, principles and methods to be used in the understanding of ISST problems and issues (Parasuraman & Zinkhan, 2002).

Towards this end, this study uses a socio-technical lens in the form of Actor-Network Theory (ANT) to offer a richer understanding of the complexity of an ISST implementation journey and the ISST service encounter. This study introduces ISST researchers in particular to ANT as a useful theoretical framework for understanding the relationship between technologies and social actors such as designers and users. In the next section, I will review the literature in order to understand what the contemporary debates are in the literature on IS and ISST implementation.

22 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/socio-technical-account-internet-based/65886](http://www.igi-global.com/chapter/socio-technical-account-internet-based/65886)

## Related Content

---

### ANT, Phenomenography and a Research Question in Information Systems

Bill Davey (2014). *International Journal of Actor-Network Theory and Technological Innovation* (pp. 1-9).  
[www.irma-international.org/article/ant-phenomenography-and-a-research-question-in-information-systems/114670](http://www.irma-international.org/article/ant-phenomenography-and-a-research-question-in-information-systems/114670)

### Imagining a Feminist Actor-Network Theory

Andrea Quinlan (2012). *International Journal of Actor-Network Theory and Technological Innovation* (pp. 1-9).  
[www.irma-international.org/article/imagining-feminist-actor-network-theory/66873](http://www.irma-international.org/article/imagining-feminist-actor-network-theory/66873)

### The Critical Role of Market Segmentation: Evidence from the Audio Player Market

Thierry Rayna, Ludmila Striukova and Samuel Landau (2011). *Actor-Network Theory and Technology Innovation: Advancements and New Concepts* (pp. 162-177).  
[www.irma-international.org/chapter/critical-role-market-segmentation/50124](http://www.irma-international.org/chapter/critical-role-market-segmentation/50124)

### The Use of Structuration Theory and Actor Network Theory for Analysis: Case Study of a Financial Institution in South Africa

Tiko Iyamu and Dewald Roode (2010). *International Journal of Actor-Network Theory and Technological Innovation* (pp. 1-26).  
[www.irma-international.org/article/use-structuration-theory-actor-network/38912](http://www.irma-international.org/article/use-structuration-theory-actor-network/38912)

### Detecting DDoS Attacks on Multiple Network Hosts: Advanced Pattern Detection Method for the Identification of Intelligent Botnet Attacks

Konstantinos F. Xylogiannopoulos, Panagiotis Karampelas and Reda Alhajj (2019). *Developments in Information Security and Cybernetic Wars* (pp. 121-139).  
[www.irma-international.org/chapter/detecting-ddos-attacks-on-multiple-network-hosts/225550](http://www.irma-international.org/chapter/detecting-ddos-attacks-on-multiple-network-hosts/225550)