

## The Conceptual Confusion Around “e-service”: Practitioners’ Conceptions

Eva Söderström, Jesper Holgersson, Beatrice Alenljung, Hannes Göbel, Carina Hallqvist

► **To cite this version:**

Eva Söderström, Jesper Holgersson, Beatrice Alenljung, Hannes Göbel, Carina Hallqvist. The Conceptual Confusion Around “e-service”: Practitioners’ Conceptions. Marijn Janssen; Matti Mäntymäki; Jan Hidders; Bram Klievink; Winfried Lamersdorf; Bastiaan van Loenen; Anneke Zuiderwijk. 14th Conference on e-Business, e-Services and e-Society (I3E), Oct 2015, Delft, Netherlands. Lecture Notes in Computer Science, LNCS-9373, pp.366-371, 2015, Open and Big Data Management and Innovation <10.1007/978-3-319-25013-7\_29>. <hal-01448053>

**HAL Id: hal-01448053**

**<https://hal.inria.fr/hal-01448053>**

Submitted on 27 Jan 2017

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



# The conceptual confusion around “e-service”: Practitioners’ conceptions

Eva Söderström<sup>1</sup>, Jesper Holgersson<sup>1</sup>, Beatrice Alenljung<sup>1</sup>, Hannes Göbel<sup>2</sup> and Carina Hallqvist<sup>2</sup>

<sup>1</sup> School of Informatics, University of Skövde, Skövde, Sweden

(eva.soderstrom, jesper.holgersson, beatrice.alenljung)@his.se

<sup>2</sup> Section for Information Technology, University College of Borås, Borås, Sweden

(hannes.gobel, carina.hallqvist)@hb.se

**Abstract.** The e-service concept has been a central concern in many research and practitioner areas in recent years. There are expectations of citizens, customers, commercial companies and public organizations of what e-services are, their functionality and benefits. However, there is conceptual confusion that may hamper collaboration and research viability. This paper explores the conceptual vagueness and presents an empirical investigation of how the e-service concept is treated in practice, along with its kindred concept “IT service”. Results show that public and commercial organizations approach e-services differently, that translation problems can cause lack of comparability in research results, and that additional concepts may be introduced instead of e-service.

## 1 Introduction

The need for providing services using information and communication technology (ICT) has multiplied concurrently with the growth and increased importance of ICT in society, for public administrations as well as business organizations. Nowadays, customers and citizens expect services to be electronically available, and the e-service concept has been a central concern in several research areas in recent years, e.g. e-business [1], IT development and maintenance [2], and e-government [3]. It has been described by practitioners as well as researchers, and quite a few researchers have tried to explain what “e-service” is [4, 5]. However, a universal definition is lacking, and “e-service” hence suffers from conceptual vagueness. The purpose of this paper is to investigate the conceptual vagueness and its consequences from a practitioner perspective, and to revitalize the conceptual discussion about e-services. In particular, the discussion will be conducted in relation to its kindred concept IT service.

## 2 Framing the concepts e-service and IT service

A “service” is traditionally seen as a set of activities provided by a provider to a consumer in order to generate value for both parties [6]. However, “service” is associated with a wide variety of meanings, not the least depending on the current context, and is thus burdened with a clutter of meanings. There is no commonly agreed definition of “*e-service*” [4], but in a broad sense, e-service is seen as service delivered via electronic networks [4, 7]. Most research also agrees that e-services are based on interactivity and “driven by the customer and integrated with related organizational customer support processes and technologies” [8, p. 186]. It is a consumer who initiates interaction by requesting a service from an e-service provider. Researchers define e-services differently. For example, Javalgi, Martin [7] says that e-services are interactive services delivered via the Internet whereas Rowley [4, p. 341] defines e-service as “deeds, efforts or performances whose delivery is mediated by information technology”. Many researchers, however, take the concept for granted and do not define it at all. Instead, e-service is treated as something that is commonly known [e.g. 9]. Traditionally, IT has had a supporting role for businesses. By combining new technologies with the “new” service dominant logic paradigm [e.g. 10] new opportunities for service innovation emerge [e.g. 11]. For IT services, the field of IT Service Management (ITSM) is a key point of origin. ITSM is a widespread area where private and public sectors both have to manage and maintain IT-systems and processes as services. Within this field, Information Technology Infrastructure Library (ITIL) is one of the recognized large and extensive frameworks [12]. ITIL views an IT service as a service offered by an IT service provider. In contrast to the ITIL view of IT services, Jia and Reich [13] claim that the IT service concept traditionally has been described as a human mediated service delivered by IT personnel to business clients. This insinuates that an IT service is only related to the support provided to a user by a helpdesk function. It is also a more narrow view of the IT service concept than the one suggested by ITIL, thus emphasizing the conceptual confusion in the area.

## 3 Research design

The study has a qualitative research approach in which the conceptual views and interpretations of e-service and IT service in different organizations have been investigated. Data was collected from 7 municipalities, 5 small and medium-sized IT enterprises (SMEs), and 1 regional alliance of municipalities. The interviewees were chosen based their potential to provide rich information concerning the concepts in focus.

### 3.1 Interviews

Open-ended interviews were conducted in which a semi-structured interview guide was used [14]. This ensured a solid basic part of the interviews, and gave flexibility to add questions when needed. The questions covered: a) if some of the concepts e-service or IT service are used in the organization, b) if other related similar concepts

are used, c) the interviewees perception of the concepts, and d) if there are organization-collective definitions of the concepts. The interviews have been performed by various combinations of researchers, thus allowing for investigator triangulation [14]. Most interviews were conducted at the participant's workplace, some through the phone or email due to geographical distance. Each lasted for about 15-20 minutes, were recorded and subsequently transcribed.

### **3.2 Data analysis**

The qualitative data analysis was conducted in three steps, with an emphasis on researcher triangulation [14]. 1) Each researcher separately walked through the transcripts for their own perception of the material without being influenced by the others. 2) The researchers agreed to review the material from these dimensions: a) similarities and differences within public organizations; b) Similarities and differences within commercial organizations; and c) similarities and differences between public and commercial organizations. 3) The researchers conducted a joint analysis using a whiteboard and color coding. Each respondent was given an identifier (letter + number): C for companies, M for municipalities, and LGF for the regional alliance.

## **4 Empirical conceptual elaboration**

### **4.1 Similarities and differences within public organizations**

In public organizations, the e-service concept is widely used and mostly referring to the same thing: services that previously were handled manually are now also offered via the Internet. The following quotation is an example of this view:

*"...E-service for me is something that is targeting citizens digitally."*(ME)

The focus is on citizens, but also companies. Public organizations often speak of citizens as external end users of the e-services, as illustrated by this quotation:

*"An e-service is [...] a self-service that I can use to keep in contact with the municipality or a public authority, [...] and that I can do it anytime. If the e-service is really good, I think it should have connection straight into the business systems so that it results in more efficiency"* (LGFA)

Accordingly, e-services need to provide value, for citizens and/or commercial organizations, for the municipality, or for both. This view is in contrast to a more general perspective in the e-government research community emphasizing that e-service mostly is provided by public administrations as a means to enhance internal efficiency. However, some municipalities claim that "real" e-services must provide value for both citizens and municipalities:

*"I do not think it is a real e-service when it is only the citizen that benefits, while the internal handling is the same as before. You spend the same amount of time."* (MC)

Mutual value is illustrated by the Swedish Association for Local Authorities and Regions, who say there is evidence that new and efficient e-services have contributed to reduce administrative costs for commercial organizations with 7 billion SEK, and

that the e-services have reduced wrongful payments to citizens with 150 million SEK per year [15]. Some municipalities view digitized forms as e-services, while others view e-services as being those who cover an entire chain from citizens into the organization's ICT systems:

*"We are talking smart e-services [...] that get into the various organizational systems."* (MD)

For some municipalities, mutual value is key while others are satisfied with increased value for only citizens. In contrast to "e-service", the majority of the municipalities do not use IT service at all, they simply state that they are not familiar with or are not using that as a concept in their organizations. Those who do use it or relate to it in some way view "IT service" as the internal IT department and helpdesk service:

*"IT support is what we use, you say computer support or IT support but this is more practical. You want help with something concerning IT."* (MF)

## **4.2 Similarities and differences within commercial organizations**

In commercial organizations, an e-service can be defined in many different ways, but primarily connected to the Internet and to end-users and what they can do online:

*"A traditional service that is accessible via a network-based interface, typically implemented using web technology. Preferably services provided by public authorities."* (CG)

The focus of companies seems to be on IT, and on service offerings using IT. In commercial organizations, "e-service" is not as prominent as "IT service". A common view of the IT-concept is in line with definitions provided by existing frameworks:

*"Yes, the idea is that we must create value by managing the results that the client wants without the need to take ownership of specific "risks". IT Services is really this concept but applied to people and technology in an IT organization."* (CE)

Hence, the definition of IT service is wide and does not focus only on end-users. One reason may be that existing frameworks such as ITIL are commonly used in commercial organizations, who therefore inherit the definitions used in the frameworks. It should be noted that not all commercial organizations use the term IT service, but rather have a plethora of service types that they discuss:

*"I actually think we mostly use the service concept [...] that is because we know what area we operate within and what area we focus on [...] Well we know we work with IT services so perhaps that is why we do not define it so explicitly."* (CB)

Some companies differentiate between IT service and e-service in a different way, but referring to IT services as something internal and e-service as being external. Others, however, view e-services as being for organizational development instead. One very common view of e-services in commercial organizations is that the concept is associated with public authorities rather than commercial organizations:

*"We don't use those concepts [e-service and IT service] in our organization, they are more used within the public sector."* (CF)

### 4.3 Similarities and differences between public and commercial organizations

When merging material for the two organizational types, several similarities and differences can be identified. The ITIL framework, for example, colors the commercial organizations' view of the service concept, which differs somewhat from how public authorities define it. One key aspect we identified is that of translation ambiguity of the concept "service" to other languages. Our research was conducted in a Swedish setting, and the Swedish language can translate "service" in two ways: One is focused on what is performed rather than on the technology mediating the service, while the other is technology-focused in terms of the technology used being the center of attention, such as in the ITIL definition of IT service. Commercial organizations are to some extent aware of the dual meaning of the "service" concept, while municipalities mainly refer to the service concept in relation to "support". This is natural since public organizations always have been focused on servicing their citizens and commercial organizations. The commercial organizations base and develop services focused on IT, involving IT technology, as well as processes and people that use the technology.

## 5 Concluding analysis

Public and commercial organizations both differentiate between internal and external e-services. For example, CA expressed that e-services are services to end customers, which indicates that there are other services that are internal. People attach different meanings to concepts, and a common definition is often lacking:

*"We do not have a common definition [of the e-service concept] and we suffer from that." (CA).*

A consequence of different meanings is that respondents may answer questions originating from one meaning, while researchers collecting data, or the collaborating organization had a different meaning in mind. The risk is that the interpretation does not represent the actual views of the other, which can make e.g. research results flawed and difficult to compare. Our study shows that there is a conceptual confusion based on both language and interpretation, and that definitions and scope vary within and between public and commercial organizations. Failing to ensure that collaborating partners, customers and providers, etc. mean the same thing can thus result in great problems. A common ground needs to be documented in any collaboration, in particular if translation is an issue. Our findings showed translation problems between Swedish and English, but this problem may hold true for other languages as well. Whether or not this is the case can only be established when a common ground is in place. Another dimension of the e-service conceptual discussion is what counts as a "real" e-service and what does not. Opinions vary, and even if research has discussed this issue to some extent, there is a difference with how it is discussed in public and commercial organizations. Future research should adopt a practitioner's perspective and conduct studies focused on empirical application of these levels. The purpose of this paper was to draw attention to the problem of conceptual vagueness and its consequences, and to revitalize the conceptual discussion about e-services. Our findings are

a start of such a discussion, and future research needs to deepen and expand e-service research concerning its vagueness and confusion.

## 6 References

1. Janita, M., S. and F. Miranda, J., *The antecedents of client loyalty in business-to-business (B2B) electronic marketplaces*. Industrial Marketing Management, 2013. **42**: p. 814-823.
2. Lu, J., et al., *Recommender system application developments: A survey*. Decision Support Systems, 2015. **74**: p. 12-32.
3. Fakhoury, R. and B. Aubert, *Citizenship, trust, and behavioural intentions to use public e-services: The case of Lebanon*. International Journal of Information Management, 2015. **35**: p. 346-351.
4. Rowley, J., *An analysis of the e-service literature: towards a research agenda*. Internet Research: Electronic Networking Applications and Policy, 2006. **16**(6): p. 879-897.
5. Rust, R.T. and K.N. Lemon, *E-Service and the Consumer*. Int. J. Electron. Commerce, 2001. **5**(3): p. 85-101.
6. Grönroos, C., *Service logic revisited: who creates value? And who co-creates?* European Business Review, 2008. **20**: p. 298-314.
7. Javalgi, R., C. Martin, and P. Todd, *The export of e-services in the age of technology transformation: challenges and implications for international service providers*. Journal of Services Marketing, 2004. **18**(7): p. 560-573.
8. de Ruyter, K., M. Wetzels, and M. Kleijnen, *Customer adoption of e-service: an experimental study*. International Journal of Service Industry Management, 2001. **12**(2): p. 184-207.
9. van Velsen, L., et al., *Requirements engineering for e-Government services: A citizen-centric approach and case study*. Government Information Quarterly, 2009. **26**(3): p. 477-486.
10. Vargo, S.L. and R.F. Lusch, *Evolving to a new dominant logic for marketing*. Journal of Marketing, 2004. **68**: p. 1-17.
11. Barret, M., E. Davidson, and J. Prabhu, V, S., *Service Innovation in the Digital Age: Key Contribution and Future Directions*. MIS Quarterly, 2015. **39**(1): p. 135-154.
12. Cannon, D., *ITIL Service Strategy 2011 Edition*. 2011: The Stationary Office.
13. Jia, R. and B.H. Reich, *IT service climate, antecedents and IT service quality outcomes: Some initial evidence*. The Journal of Strategic Information Systems, 2013. **22**(1): p. 51-69.
14. Patton, M.Q., *Qualitative evaluation and research methods*. 2nd ed. ed. 1990, Newbury Park, CA: Sage. 532.
15. SKL, *Strategy for the e-society (in Swedish)*, S.A.o.L.A.a. Regions, Editor. 2011.