EVOLUTIONS OF SERVICE ACTOR ROLES TOWARDS FUTURE SERVICE

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ABSTRACT

Realising new ways of value co-creation involves changes in the roles of actors in a service system. Role Theory and its concepts have been used in service research to articulate dynamics in service actor roles in existing value co-creation situations, but they are not applied to evaluate roles in future situations of service. Several methods exist in (service) design that can be used to describe existing roles in service systems and to suggest possible futures based on these descriptions, but describing roles in these futures in a structured way is not a part of these methods.

Structured ways to describe service actor roles in envisioned services are thus lacking, which makes it difficult to assess the feasibility of the evolution from contemporary service actor roles towards realising services. In this paper, we suggest how Role Theory and theatre-inspired methods in design can complement one-another to fill this gap. We use interview data from the evaluation of an envisioned service scenario to show how Role Theory can be used as an analytical perspective to describe roles in this envisioned service. Finally, we suggest possible directions for future research.

INTRODUCTION

The realisation of new forms of value co-creation (Grönroos 2008; Vargo and Lusch 2004; 2008) often includes a change of practices for service actors (Lin et al. 2011; Holmlid, Wetter-Edman and Edvardsson 2017). Service actors thus need to know what is expected from them in their new role, but there is a challenge in defining these roles and capabilities for service actors (Vasantha et al. 2012).

In this paper, we explore the use Role Theory (Goffman 1967; Biddle 1979; 1986) to describe the characteristics of roles in envisioned services. In service research, role dynamics for existing value (co-)creation situations are described in detail (Solomon et al. 1985; Akaka and Chandler 2011; Åkesson 2011; Moeller et al. 2013). In service design, several methods exist for describing (the roles of) existing service actors as a starting point for suggesting possible futures (Sangiorgi, 2009). Theatre-inspired methods have been used in design to explore these possible futures (e.g. Iacucci, Kuutti and Ranta, 2000; Halse et al., 2010; Arvola et al. 2012). While detailed descriptions of service actor roles are included in several mapping methods, the futureoriented methods in service design - to our knowledge do not aim to describe roles of actors in these future services in detail.

Being able to envision and describe service actor roles in a more structured way makes it possible to analyse future roles and find feasible evolutions from existing roles to sustainable future roles. We show how a combination of theatre-inspired methods in design and Role Theory concepts can be used to this end. Thereby we produce knowledge that is useful for the transition process from what is and a vision for what can be towards the realisation new forms of value co-creation.

In the remainder of this paper we provide a background on Role Theory, methods in (service) design to describe existing roles and explore future situations, and the use of concepts from Role Theory in service research. We then analyse data from interviews with service actors regarding a future service scenario, to explore the use of Role Theory as an analytical perspective. We discuss the outcomes of this exploration and we make suggestions for future research.

BACKGROUND

Role theory builds on a theatre metaphor and is concerned with the behaviour of people in different social positions (e.g. teachers, police officers, etc.), which are called roles (Biddle 1979; 1986; Guirguis and Chewning 2005). The behaviour of those who occupy a social position (i.e. role) is shaped by expectations for this behaviour (Biddle 1979). Expectations are directed towards the role(s) are of an object person and uttered by subject persons, based on the subject persons' norms, beliefs and preferences (Biddle 1979). There can be many - internal and/or external - expectations for a certain role, which can lead to role overload (Biddle 1979; 1986). A lack of consensus or contradictions in role expectations can causes role conflict (ibid.). Finally, role ambiguity occurs when expectations for a role are not clearly defined, making it hard for role bearers to know whether they behave in line with expectations for their role. Role overload, role conflict and role ambiguity can cause role stress (Guirguis and Chewning 2005).

Our conception of roles is in line with symbolic interactionist and cognitive role theory (Biddle 1986; Guirguis and Chewning 2005). We see roles and the expectations tied to them as organic. In other words, we see a role as something that cannot be designed a priori and something that evolves over time.

ROLES IN SERVICE RESEARCH

In service research, Role Theory and the concept of roles have been used to analyse and describe behavioural dynamics in service encounters, to manage roles in these encounters (e.g. Broderick 1998; 1999). Roles can be combined into role constellations, where the respective needs, strengths, knowledge, etc. of the roles in such role constellation complement each other (Åkesson 2011). Customers can take various roles and act differently in the service (Chervonnava 2003; Moeller et al. 2013). They can be given the freedom to define their role (role making) or be expected to perform a predefined role (role taking) (Larsson and Bowen 1989). The roles of service employees are to a large extent steered by expectations from the service organisation (Paul, Hennig-Thurau and Groth 2015) and the customer. Service employees need to be able take a complementary role, to enable successful value cocreation (Åkesson 2011; Ng, Plewa and Sweeney 2016). Sources of role stress for employees are discussed, such as contradicting expectations towards the employee role (De Jong and De Ruyter 2004) or emotional labour (Grayson 1998). In the discourse on the use of Role Theory, roles have both been framed as being performed during dyadic service encounters (e.g. Solomon et al. 1985) and as a resource that can be

integrated to co-create value (Baker and Faulkner 1991; Akaka and Chandler 2011). In this latter view, roles are not tied to a specific actor. Instead, multiple actors can each perform a part of a role (ibid 2011).

ROLES IN (SERVICE) DESIGN

In service design, Role Theory has been used to describe roles (changes) for a service provider and customer during customer involvement in new service development (Peltonen 2017). The theory has also been suggested as a tool to help design the "stage" and "props" that support service actors in their respective roles (Hatami 2011). There several methods for describing roles of actors in existing service systems, such as Activity System Maps (Sangiorgi and Clark 2004), Stakeholder maps (Stickdorn and Schneider, 2011) or Map of interactions (Morelli 2006). To explore future situations of service, theatre-inspired methods are used, like role playing (Stickdorn and Schneider 2011), bodystorming (Oulasvirta, Kurvinen and Kankainen 2003), experience prototypes (Buchenau and Fulton Suri 2000) and service walkthroughs (Arvola et al. 2012). Theatre has also been used in design for empathy building, experience design and participatory design (Macaulay et al. 2006). It can help design and evaluate bodily experiences or to develop empathy for bodily experiences (e.g. Boess 2008). Enactment of work has been used to communicate ethnographic data (Buur and Larsen 2010; Buur and Torguet 2013) and to link data collection and idea generation (Iacucci, Kuutti and Ranta 2000). Acting out scenarios of future interactions, rather than talking about them, provides embodied knowledge (Kuutti, Iacucci and Iacucci 2002). Acting out scenarios in (the user's) context provides additional insights (Iacucci Kuutti and Ranta. 2000). Furthermore, theatre has been used as a common language that connects the language of designers and users (Ehn 1992; Ehn and Sjögren 1991; Brandt and Grunnet 2000). In addition, theatre is used to stage "imaginative places that are radically distant from the places of current practice" (Brodersen, Dindler and Iversen 2008:19). Forum theatre can help designers to work with social change (e.g. Boess 2008), or facilitate changes in an organisation (Buur and Torguet 2013). Theatre-inspired methods have also been used to receive better feedback for envisioned products (Sato and Salvador 1999). More recently, post- dramatic theatre forms have been explored, which connect "a range of different forms of performance, improvisation, and participatory theatre under the same umbrella term" (Ryöppy et al. 2016, p. 462).

INTEGRATE KNOWLEDGE AREAS

In service research, Role Theory and the concept of roles have been applied to (describe) existing value cocreation situations (see table 1), but not to describe roles in envisioned value co-creation.

Theatre has been used in (service) design to describe current roles, interactions and contexts as well as envision and explore future situations (of service) (see table 1). However, to our knowledge, the use of theatre in design does not make roles an explicit object of design.

Taken together, the work on theatre-inspired methods in design, Role Theory and roles in service research can provide a way to envision *and* describe roles in future services, which fills the identified gap in literature (see also table 1, top-right corner).

Table 1: Overview of earlier work regarding roles in service systems

	Existing service	Future service				
Description of roles	Customer and service provider roles during dyadic service encounters					
	Use of Role Theory to explain and manage role dynamics					
	Roles as resource for value co- creation					
Methods related to roles	Activity System Map, Stakeholder maps, Map of interactions Enact roles (based on ethnographic data) to develop empathy	Explore possible futures using theatre- inspired methods such as scenarios, role play, experience prototyping, bodystorming, service walkthrough, forum theatre, post- dramatic theatre				

METHOD

We are part of a service development project by a producer of trucks and buses. Through the project, the producer aims to improve the process of troubleshooting and repairing trucks and buses. More specifically, it aims to do so by developing and deploying software that can provide step-by-step support for troubleshooting, both remotely and when a vehicle is in a workshop. Besides this, additional touchpoints will be introduced, where remote troubleshooting will be performed by what we will refer to as "helpdesk".

We conducted 26 semi-structured interviews (Creswell 2014) with workshop personnel, customers of the truck and bus producer, and telephone operators of a roadside assistance department run by the truck and bus producer (whose focus is to connect a driver to a workshop in case of a breakdown at the side of the road). The interviews were conducted by one of the authors, in Spain (4 customers, 7 workshop employees), Germany (3 customers, 10 workshop employees) and Sweden (2 assistance operators), in spring 2016. The interviews started by talking about today's work situation, including what would happen in case a vehicle encountered issues. Then, the new service idea was

introduced, using both a textual description and visual scenario (see Figure 1). The visual was the outcome of an earlier workshop session with members of the project development team. The remainder of the interview focused on consequences that realisation of the envisioned service and deployment of the technology would have on the work of actors in the existing service system. During the interviews in Spain and Germany, an interpreter (an employee of the distributor) was present to translate from and to English. In Spain, all interviewees replied in Spanish and their replies were translated by the interpreter. In Germany, some of the interviews were (partly) conducted in English and translations were done in part by the interpreter and in part by one of the authors, during transcription. The interviews were audio-recorded and transcribed. One of the authors analysed the interview transcripts, using Role Theory as an analytical perspective.

FINDINGS

When reflecting on consequences for their work, some actors from the workshop considered that the work done by the helpdesk would offload the workshop. Others thought it would increase their work or take away attention from their current work. Not just if someone from the workshop would fulfil helpdesk role of remote troubleshooting, but also the handover from helpdesk to workshop alone was considered an extra effort, presumably for the workshop manager. As receptionist #1 commented: 'the workshop manager has to receive the calls from customers, organise the workshop, open work orders and also check the work of the technicians and also decided in terms of this information. That would be too much work for the same person.' This receptionist suggested that they may need a new position at the workshop that would take care of receiving calls from the helpdesk. For the mechanic, several things would change. The software would provide more information compared to today and a general direction in which to continue. Customer #5 even believed that: 'Based on the fault codes and the experience of the mechanic and the workshop you can determine whether it is a serious problem or whether vou can drive on.' In addition to this, the step-by-step guidance in the software would help both experienced and unexperienced mechanics: 'A mechanic, even an unexperienced one, can work with the checklist and has the chance to find the problem in a shorter time' technical manager #3. However, pulling up the case information in the software will take additional time and some considered this not to be part of the work of a mechanic: 'He thinks that he should focus on the repair and not also be involved in computer work.' - senior mechanic #3. Finally, the troubleshooting by the helpdesk and the suggestions in the software could also point the mechanic in the wrong direction.

For the representatives of the transportation company not much change was expected in their work. As junior mechanic #2 put it: 'You must call and you must also

		•			As	sess the probl	em			•		
		Problem occurs			Guided troubleshooting by helpdesk (remote)			e)	Cecision point			
1	What happens (action)					1.000		11			1.014	
2	Who is involved (roles)								100			
3	What is needed in each step (resources)											
					:	Solve the probl	em					•
		Handover helpdo to workshop (w	esk (s)	Vehicle to ws or vice versa	Handover to workshop	Handover to mechanic	\rangle	Guided trouble	eshooting and rep	air by mechanic		Feedback
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Figure 1: The visualisation of the service scenario that was used as underlay during the interviews with service actors

call today'. Others believed they would even have less work in the event of a breakdown. Furthermore, they would have a clearer estimate of the delay, which would allow them to update their customer more precisely about the new expected time of arrival. Regarding their involvement in the troubleshooting they could provide contextual knowledge and take decisions. The level of involvement would differ, depending on whether a transport company would have a contract with the workshop where they pay a fixed monthly fee or pay for each repair separately: '[I]f I would have a [fixed fee] contract then I would call for every little thing. Now I try to do everything myself'. - customer #6. Some representatives would want to be kept up to date continuously, while senior mechanic #5 mentioned that at least one of their customers would not be happy with constant updates.

Involvement of the driver to in the troubleshooting was brought up when consequences for the work of the driver was discussed. assistance operator #1, believed that the driver would be willing to help if they knew that it would lead to quicker help. Others were more doubtful whether the driver would be willing and able to help. One workshop manager mentioned that an effective way to get drivers involved would be to get the transportation company to instruct their drivers to cooperate: 'We maybe have to spend time like selling this to the customer, that [the service] is important for this, for his operations. So he has to get the drivers involved into this process, otherwise that won't be easy.' - workshop manager #1. Regarding the ability to help, many of the interviewees commented on the differences in the technical knowledge of drivers today and that drivers would need more technical knowledge if they were to be involved in the remote troubleshooting. Technical manager #1 said: 'The driver needs to be more prepared. He needs to have technical basic knowledge. They need to know (...) the basics of the truck and mechanics.' - customer #1 mentioned that educating the drivers would be needed, but difficult, because in the drivers' schedules there is no time for training or courses.

The helpdesk role, of performing the initial troubleshooting, requires both social skills – to transmit the question to a driver – and technical skills. Regarding the former, customer #2 said: '[the helpdesk has] to be able to transmit and ask for specific things (...) because if they know how to do anything but they don't know

how to ask the driver how to look for something, (...) that would be useless.'. Several interviewees, including the assistance operators themselves, believed that the current roadside assistance did not have the technical knowledge required for this work. Furthermore, the assistance operators commented that it would take extra time to finish a call if they would perform the work of the helpdesk, which went against their current role: 'You don't really have time to be on the phone such a long time. I have to try to close the call rather quick, because I have many different things at the same time that I need to do.' – assistance operator #2.

The interviewees considered the software to be a thinking aid for the mechanic, that it would provide a checklist of things to be done, without becoming a straitjacket: 'It would be better if the system tells you the steps without demanding things to be done in that order.' - workshop manager #3. Also, the software would be beneficial if it would be a central storage point of all information on the case, where all those involved could retrieve information that is valuable to them. To achieve this, workshop manager #5 suggested: 'Maybe build in something to get the feedback what the mechanic has done. That you cannot log out of the system until you have answered the questions.' Some also considered it helpful if the software could provide an assessment on whether it was safe to drive on. Others wondered whether the software alone could make that assessment.

Taken together, the interviewees discussed role expectations for their own future role, such as senior mechanic #3, who stated that he should not do computer work. They also mentioned expectations for roles of other service actors. For instance, customer #2 mentioned that the helpdesk should be able to know how to ask the driver for specific things. In addition to this, the interviewees mentioned several possible sources of role stress, such as role overload for the workshop manager if he would have to receive cases from the helpdesk or perform the remote troubleshooting. But also, in-between interviews, a lack of role consensus was apparent regarding updating the transportation company on the progress of the repair. Furthermore, role conflict, was discussed by assistance operator #2. Role taking was present in several interviews, mostly regarding (the reluctance to take) the helpdesk role. Role conformity was taken up by workshop manager #5, who mentioned that making it impossible to sign out of the software without saving performed work first would help mechanics to conform to their role of information logger. Another example was the suggestion of getting the transportation company to instruct their drivers to assist the helpdesk in the remote troubleshooting. This relates to how the likelihood of acceptance of role expectations by an object person may differ depending on who is the subject person.

We were also able to find role concepts discussed in service research. For instance, role variation among representatives of the transportations company, based on what type of contract they have. Also, role constellations were discussed, such as how the information providing role of the software and experience of the mechanic could complement each other to assess whether it would be possible to drive on.

We did not find instances of emotional labour, role making and role ambiguity in the data. We found two role aspects outside the scope of current literature. Firstly, the lightening of the role of workshop manager and mechanic if a helpdesk would do remote troubleshooting and preliminary diagnosis. We call this role mitigation. Secondly, an unease of the assistance operator towards taking on the role of the helpdesk as envisioned in the scenario, which we call role anxiety.

DISCUSSION

We want to explore the use of Role Theory to describe roles in envisioned services in a structured way. To that end, we have used this theory as an analytical perspective on the data from interviews where existing actors in a service system for troubleshooting and repairing trucks and buses used a scenario of an envisioned service to evaluate consequences of realising the service on their work. We were able to find the majority of Role Theory concepts in the data, which suggests that Role Theory has potential as a lens to describe and analyse roles in envisioned services. However, this work has to be seen as a first exploration that has several limitations. First of all, this study used scenarios, which are static and thus only allow (passive) evaluation of what is depicted. They do not facilitate exploration of alternative role descriptions or distributions of a role across multiple actors. Also, since we conducted the interviews with each actor separately, actors did not have a chance to comment on each other or experience the other's behaviour in the respective future roles. Dynamic methods, like roleplay, make exploring alternative role descriptions and distributions easier and allow service actors to interact with each other in their envisioned role. Such enactment also provides embodied knowledge, which passive evaluation of scenarios does not. For this service specifically, a limitation is the absence of the view of the drivers, which could not be interviewed due to their work schedules and lack of a fixed geographical location.

In this study, evaluations took place based on the description of the project and a scenario provided by the truck and bus producer. This can be seen as a position of power in at least two ways. Firstly, there already is a vision for the service and some roles, that is imposed on the interviewee. Secondly, the producer owns some of the workshops, thus having an influence on how work is done (as an employer). Role Theory might thus not be applicable as an analytical perspective in the same way in a context where service actors have little power over the behaviour of other actors (e.g. in NGO services where actors participate on a voluntary basis).

Finally, it seemed that the interviewees considered the entire role of the helpdesk to be tied to one service actor. Here, the perspective presented by Akaka and Chandler (2011), where roles are not necessarily tied to one person, could have been used, to see in what ways the role of the helpdesk could be split up – possibly even over existing service actors – to create a feasible role distribution. This tactic could also prevent that a new role in a service becomes a jack of all traits, with role expectations that become impossible for anyone to meet. In any case, someone has to stick up for roles that do not exist yet, or balance a position of power that existing actors might have over this role (e.g. if all existing actors state that someone else should take this new role).

CONCLUSION

New ways of value co-creation often influence existing roles of actors in service systems. Current research regarding roles of service actors shows how role characteristics in existing services can be described in detail but does not describe roles when envisioning and exploring possible future services. In this paper, we have applied Role Theory as an analytical perspective to interview data where individual service actors evaluated a scenario of a future commercial service. The majority of Role Theory concepts could be found, which suggests that of Role Theory can be used to describe and analyse roles in future services. Being able to describe and analyse the specifics of envisioned roles in future services helps to find feasible role evolutions towards realising such services. This work thus provides useful knowledge for the transitions from what is and what can be to realising new ways of value co-creation. Future work could look at dynamic methods to envision future roles, rather than the passive scenario used in this study.

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