

The Duality of Second Screens: A Phenomenological Study of Multi-Platform Engagement and Service Experiences

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Abstract

Internet traffic from mobile devices surpassed traffic from traditional desktop PCs for the first time in 2014. Although users today access and experience digital services through multiple mobile and traditional devices simultaneously, little empirical research investigated the mechanisms driving this shift, or its implications for service innovation research and practice. Here, we report on a qualitative phenomenological study of multi-device use. Drawing on the emerging literature at the interface of service-dominant (SD) logic and service innovation, we conceptualize the individual devices used to access digital services as engagement platforms. We explore user behavior and experiences of digital entertainment services, and find that the perceived need to enhance or avoid elements of digital service experiences motivates users to switch between and/or supplement multiple engagement platforms with one another. We conceptualize our findings in two distinct theoretical models and delineate future research opportunities.

1. Introduction

The number of Internet-connected devices around the globe has reached 12 billion [1]. This proliferation of Information and Communication Technology (ICT) continues to transform interactions of service firms and their customers. One particularly noteworthy trend is the shift in usage patterns away from traditional desktop PCs, and toward handheld devices such as smartphones and tablets. As of January 2014, 55% of Americans owned a smartphone, and 42% owned a tablet [2]. Consequently, in 2014, the majority of all Internet traffic in the US stemmed from mobile handheld devices. Moreover, the volume of mobile Internet traffic increased by 81% since 2013, and is now 18 times larger than all Internet traffic in 2000 [3].

The availability of new technical devices not only influenced data volumes, but also transformed how

users access and experience digital content. According to recent industry estimates, 87% of tablet and smartphone owners use multiple devices simultaneously [4], for example by browsing the web on a tablet while watching TV. We define this behavior as *second-screen service experiences*. Unsurprisingly, providers of digital entertainment services, including SkyTV [5], Verizon [6], or Ericsson [7], attempted to understand the emerging usage patterns related to second screens. However, their studies are largely descriptive, context dependent, and provide only marginal insights on how or why individuals use a second screen, or what the business implications are.

Scholarly interest in second screen experiences recently emerged in fields including cyberpsychology [8], behavioral science [9], and media studies [10]. In this work, however, we approach the phenomenon of second-screen use as it pertains to digital service experiences from a service science perspective. Specifically, we draw on emerging literature at the intersection of service-dominant (SD) logic [11], service innovation [12], and customer engagement [13], to explore digital second screen service experiences in the entertainment industry.

Conceptualizing second screen devices as *engagement platforms*, physical or virtual touch points designed to provide structural support for the exchange and integration of resources, and thereby co-creation of value [14], enables us to investigate user behavior and resulting service experiences. Using engagement platforms as a conceptual lens is appropriate for several reasons. First, engagement emerged as an umbrella concept, and is considered particularly applicable when attempting to gain an understanding of focal customer-firm or customer-to-customer interactions within ICT-mediated environments [15]. Second, engagement offers new insights to the realm of practical application of SD logic [13,16]. Third, it enables us to contribute to the growing body of literature advocating service innovation research from an SD-logic angle, which may provide substantial new

insights to service science [12,17]. Our empirical findings are derived from a qualitative phenomenological study conducted with individuals who regularly use multiple engagement platforms during digital service experiences. These user-centric findings enable us to inductively build theory, as we develop two distinct models that outline why and how users switch between engagement platforms, and how they experience the platforms through use. Overall, we show how users participate in, and customize, their own unique and emergent digital service experiences in a multi-engagement platform context.

Our study provides a number of contributions to the wider service science literature. First, by empirically exploring digital second screen service experiences, our work addresses the key research priority of providing insights at the ICT-service interface, which has been highlighted in both the service science [18] and information systems literature [19]. Second, we respond to calls for research investigating engagement in ICT-driven contexts more broadly [20], and engagement platforms more specifically [13]. Third, our research design is based on the three conceptual pillars of user centricity [17], ICT focus [12], and qualitative methods [12] from the wider SD-logic and service innovation literature. Finally, we provide a theoretical contribution to the service science literature, foundations for future research, and guide practitioners to design effective engagement ecosystems.

The paper is structured as follows. First, we review the relevant literature on engagement platforms, service innovation, and service experience to position and motivate our work. Second, we present an overview of our research method. And third, we describe our model and discuss our findings.

2. Engagement Platforms

Engagement has been studied in fields including organizational behavior [21], sociology [22], and marketing [23]. It has been defined as an individual's psychological state [24], or through behavioral outcomes such as loyalty or purchase intent [25]. Brodie et al. explain engagement represents "interactive experiences [between] a focal agent [i.e. 'engagement subject;' e.g. a customer] and object [e.g. a brand, product or organization] within specific service relationships" and systems [13]. Therefore, from an SD-logic perspective, interactive, co-creative experiences may be interpreted as forms of engaging, and reflect interactivity beyond transactions [25]. To this end, Chandler and Lusch [16] address engagement

as an alignment of context-related connections and psychological dispositions. Overall, the current discourse in the literature indicates that engagement represents a key concept for investigating interactive ICT-enabled customer to-firm interactions [20], and is therefore adopted as a conceptual foundation here.

Engagement platforms (EP) recently emerged within the wider service research literature as a concept to operationalize customer engagement within ICT-mediated environments [14]. Ramaswamy, for example, defines engagement platforms as "purpose-built, ICT-enabled environments containing artifacts, interfaces, processes and people permitting organizations to cocreate value with their customers" [26]. Nenonen et al. argue that understanding EPs is crucial when managing co-creation processes [27], and Ramaswamy and Gouillar [28] highlight three unique characteristics of engagement platforms. First, interactions within an EP are visible to a wider audience (e.g. on social networking sites), and are therefore *transparent*. Second, EPs enable actors to integrate resources within the platform itself, for example by adding or sharing content. EPs are therefore capable of modifying their own characteristics, which implies EPs are designed to facilitate dialogue among actors. EPs, therefore, must be *accessible*. Finally, *reflexivity* implies that EPs are capable of adapting to changes from within. The early understanding of engagement platforms provided by Ramaswamy and Gouillar or Nenonen et al., however, remains descriptive and abstract.

The service science literature defines EPs as physical or virtual touch points designed to provide structural support for the exchange and integration of resources and co-creation of value among actors in a service system [14]. More importantly, service firms typically maintain multiple complementary engagement platforms that collectively comprise larger engagement ecosystems [14]. This unique perspective allows us to conceptualize handheld devices, such as smartphones and tablets, which are at the core of digital second screen service experiences, more concisely as instrumental EPs (e.g., a Nexus phone). This type of engagement platform is a prerequisite when attempting to access digital content stored in a service firm's operating platform (e.g., Youtube.com). If properly integrated, EPs in larger engagement ecosystems can enhance a firm's ability to exchange resources and therefore co-create value with customers [14]. The optimal configuration of engagement ecosystems can therefore be perceived as a dynamic capability, and hence represents a source of competitive advantage [29]. However, to accomplish this goal, a more substantial understanding of the

means by which individual EPs are used is necessary. Despite recent calls for further research in the area of engagement platforms [13], empirical contributions remain limited. We aim to address this gap.

3. Service Innovation, Service Experience

Customer engagement in general, and engagement platforms in particular, are conceptually rooted in SD-logic [11], as well as in the current discourse on service innovation. Traditionally, service innovation has been viewed from a goods-centric perspective [30], which defined innovation as firm-centric output. Substantial empirical and conceptual shortcomings related to service innovation research in recent years triggered an evolution of the discourse, and culminated in an overall consensus that new means to investigate and understand service innovation are needed [17, 12].

An SD-logic perspective [11] on service innovation, which focuses on customer processes and changes in customer-firm interactions, implies a theoretical shift away from firm-centric outputs; in this way, SD-logic has the potential to overcome challenges associated with previous goods-centric approaches [17, 12]. From this perspective, service innovation aims to clarify and improve the interactions that co-create value among actors in a service system [9]. More specifically, service innovation depends on clarifying the roles that customers can play as co-creators of value [17], or on understanding changing interactions rather than changing outputs [31].

Although empirical insights of SD-logic-inspired service innovation studies are just emerging in the literature (e.g., [32, 33]), empirical qualitative work exploring service innovation should be conducted [34, 11] “in contexts, where [...] the locus of service innovation is changing” [34]. This is considered prevalent whenever “the role of IT [information technology] is dominant” [11]. Furthermore, incorporating the “point of views of external partners” [34], such as customers, is considered crucial for empirically understanding value co-creation processes, and thereby service innovation [11].

Qualitative, customer-centric research in the wider realm of digital service innovations is important because it helps to clarify how users (i.e., customers) co-create service experiences. Chandler and Lusch [16] discuss service experiences as many-to-many engagements and assert that one single actor does not define a service experience; rather, all actors involved in a service experience play a role in customizing their

larger service experiences. Furthermore, extant service research demonstrates that users are individually and socially motivated to do so [34, 35]. In this work, we intend to reconcile what these motivations are and how they influence second screen and engagement platform integration into service experiences. Empirically exploring second-screen use via an engagement platform lens provides an opportune backdrop for studying not only how and why users customize their digital service experiences by using multiple engagement platforms, but it also represents an opportunity to contribute to SD-logic-driven service innovation research.

4. Research Method

Studying the behavior and experiences of users that interact with multiple engagement platforms during digital services represents an emerging area of inquiry with very limited empirical contributions in the wider service science literature to date. In this work, we therefore ask *how and why do users use multiple engagement platforms during digital service experiences?*

The specific nature of our research question demands a research strategy that can provide insights from a user-centric perspective. We therefore relied on an interpretive phenomenological analysis (IPA) as our research strategy [36, 37]. IPAs enable the researcher to study and describe a lived experience from the perspective of an individual [36], which makes it suitable when exploring the universal nature of a focal experience or phenomenon, in our case digital service experiences on multiple engagement platforms [37].

IPAs rely on a two-stage interpretive process, or double hermeneutic, in which participants make sense of their own world, while we, as researchers, attempt to understand the participants [38]. This interpretive process is inherently based on qualitative data, which is obtained through semi-structured interviews [37], as these are particularly suitable when exploring phenomena that are not well understood [39]. Furthermore, in the context of this study, the IPA is a particularly useful research strategy, as it enables us to incorporate the conceptual pillars of user centricity [17, 34], ICT focus [12, 34], and qualitative methods [12, 34].

We selected our participants through a purposive sampling approach [40, 37], in which every potential participant had to fulfill a set of pre-defined criteria [41]. We screened for previous experience with second

screens in the context of digital entertainment services (e.g., video gaming), and ability to articulate thoughts and experiences in a concise fashion. Though Smith and Osborn [37] recommend sample sizes of one to fifteen participants for IPAs, we interviewed participants until we reached theoretical saturation, or the “point of redundancy” [42], where additional interviews did not reveal any new insights. We reached this point after the 9th interview.

Each interview was semi-structured, lasted approximately one hour, and represented an encounter directed toward understanding our participants’ experiences with multiple engagement platforms during digital entertainment services. Semi-structured interviews allowed us to use broad, open-ended questions when discussing our participant’s multi engagement platform experiences, and were guided by an interview protocol [43]. Individual questions were phrased to deliberately avoid academic terminology, so that participants could express themselves in their own words [44]. This guided the two authors who acted as interviewers to engage in natural conversations with the participants, without constraining the course of the interview [45], and therefore resulted in rich and consistent data [46].

Uncovering the meaning and motivational factors of a participant’s experiences is central to the interpretive data analysis in IPAs [37], which ultimately allows for inductive theory building and sense making [47]. Our data analysis was conducted independently by two of the authors, who followed the process outlined by Smith and Osborn [37]. Stage one involved a free textual analysis in which we read the interview transcripts to familiarize ourselves with the content, and then made annotations to summarize, identify associations, as well as develop preliminary interpretations. In stage two, we summarized our annotations into preliminary themes that clustered similar annotations into subjectively related groups, which were then structured on a higher level of abstraction [37]. We finally compared individual themes and summarized them into concise findings.

5. Findings

We organize our results in two parts: how multiple engagement platforms are used and why they are used. We present each in turn.

5.1. How are Multiple Engagement Platforms Used?

We found two scenarios of multiple engagement platform use. First is *reactive usage*, which is device-driven. In these scenarios, certain types of platforms already provide the opportunity for multi-screen experiences. Examples include Nintendo DS or Microsoft’s Xbox, which provide users with a split, or second screen for multi-player experiences. Because *reactive usage* scenarios are device driven rather than a consequence of the increasing proliferation of mobile devices, or individual user preferences, we excluded this stream from further inquiry.

Second is *proactive usage*, in which users chose to use a secondary screen while engaging in a digital service experience. Because *proactive usage* is user driven, it lies within the focus of our study. As expected, the most commonly used type of second screen was a mobile device, such as a smartphone or tablet. Furthermore, proactive usage scenarios involved single or multiple users. We show in Figure 1, that users respond to a digital experience by either switching (1a) or supplementing (1b) engagement platforms.

Our first aim was to describe the processes by which individuals engage in second screen use, that is, to identify the catalysts for switching or supplementing engagement platforms. Our findings suggest that there are two types of processes within the proactive usage scenario: *experience avoidance* and *experience enhancement* (see Figure 1).

Experience avoidance is characterized by proactive usage of a second screen to avoid a first-screen experience that is perceived as negative (1a). Triggered by subjectively uninteresting content or tasks, a user purposefully alters the experience by *switching* screens. The second screen *replaces* the first screen, and the first-screen experience that the user viewed as negative can be avoided.

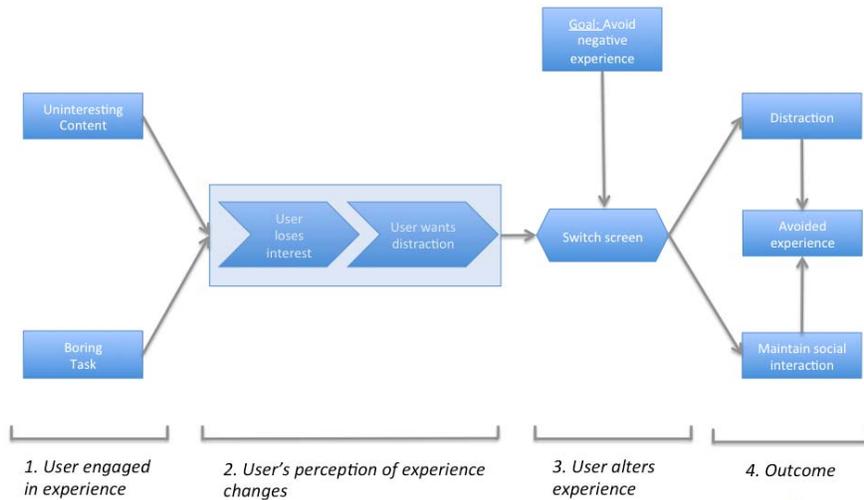


Figure 1a. Service Experience Avoidance – Switching Engagement Platforms

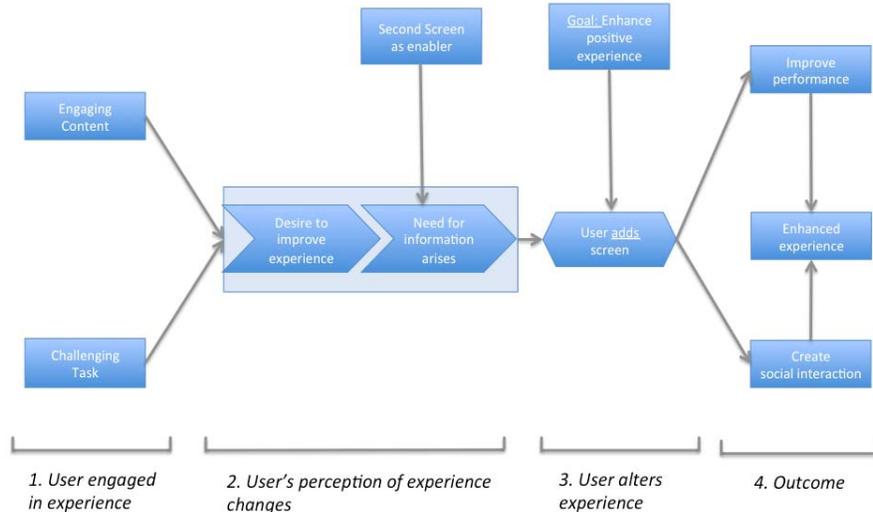


Figure 1b. Service Experience Enhancement – Supplementing Engagement Platforms

Examples of avoidance include entertainment experiences in group settings that individuals do not enjoy but nevertheless participate in to maintain social cohesion. For instance, a husband might sit next to his wife while watching a TV show with a female target audience but disengages by switching engagement platforms to his smartphone. We discuss the individual motivational factors in more detail in the next section.

Experience enhancement is characterized by the proactive use of second screens to improve a subjectively positive first-screen experience (1b). Triggered by engaging content or challenging tasks, a user recognizes that the overall experience can be further enhanced by *adding* an additional screen. As

such, the second screen becomes an enabler of individualized digital service experiences.

Examples of enhancement include entertainment service experiences that users generally enjoy, such as playing computer games. For instance, playing a specific game is engaging because of its content, but also challenging because of the nature of the game itself. Users know that performance in the game, and overall experience, can be improved by accessing additional content that is related to the game, such as a map of the game environment. A second screen, for example a tablet, is then used to display the map, which improves in-game performance on the first screen, and may also create a sense of social

interaction as a wider gaming community typically provides the external game content.

5.2. Why are Multiple Engagement Platforms Used?

Engagement platforms are used as second screens because they empower users to be proactive in customizing their service experiences by either *switching* between engagement platforms (i.e., experience avoidance) or by *supplementing* engagement platforms (i.e., experience enhancement). Our participants reported that intrinsic and extrinsic factors motivated them to do so (see Table 1).

Experience Avoidance: Intrinsic Factors. Some users are motivated to avoid existing service experiences for intrinsic reasons ranging from autonomy, competence, enjoyment or relaxation, learning, self-identity, to coping. In these instances, users typically lose interest in the current service experience that is transmitted via the first engagement platform (e.g., a TV), as it is perceived as negative. A response to this emotion is then to disengage from the current engagement platform by replacing it with an alternative, second engagement platform (e.g., a smartphone). As one respondent explains,

“If he’s playing a video game and I lose interest or we’re watching something and I want to look something up on the Internet, I’ll either use my smartphone [...] or I’ll use my laptop. And if I

happen to have my tablet charged, I might use my tablet. So we both have multiple devices that we’ll use while we’re also watching TV or playing video games, or whatever we’re doing at the time.”

In this example, our participant describes how a second screen replaces the initial engagement platform when there is a lack of learning, enjoyment, or autonomy. Essentially, users switch engagement platforms to improve the service experience for themselves. Furthermore, the participant describes the information-based nature of content being sought, and the competence or learning that may occur when information is accessed on a different engagement platform. This underscores that individual motivations influence users to participate in and customize the service experience. This switching can also be seen in the reported experience of another participant:

“I don’t want to focus on the boring part of the game. I want to focus on something interesting over there. But when I’m basically done with the boring part -- I pretty much turn off the TV [...] and focus completely on the game.”

The respondent clarifies his or her individual motivation to “focus on the game”, avoiding one service experience to engage in another; a second screen, or a second engagement platform, enables the user to do this.

Experience Avoidance: Extrinsic Factors. Our participants were also motivated to avoid existing

Motivations to Participate in Second-Screen Service Experience

Response to Initial Service Experience	<i>Intrinsic Factors</i> <i>(user strives for self-satisfaction)</i>	<i>Extrinsic Factors</i> <i>(user strives to satisfy others)</i>
	Experience Avoidance <i>(switch engagement platform)</i>	Desire to <u>avoid</u> existing service experience for <u>intrinsic</u> reasons such as autonomy, competence, enjoyment/relaxation, learning, self-identity, or coping
Experience Enhancement <i>(supplement engagement platform)</i>	Desire to <u>enhance</u> existing service experience for <u>intrinsic</u> reasons such as autonomy, competence, enjoyment/relaxation, learning, self-identity, or coping	Desire to <u>enhance</u> existing service experience for <u>extrinsic</u> reasons such as community, relatedness, or public sense of accomplishment

digital service experiences to satisfy others. Specifically, using multiple engagement platforms enables users to build feelings of community and bond with others, while simultaneously disengaging from the primary screen:

We've got two relatively new children here, so there's times where we're using, say, the television to distract them, have them watch some shows on, like, say, Disney Junior for instance. I'm not really heavily invested in watching that show, so I may have my phone out and playing "Words with Friends" with my wife if she's not around...

In this example, the mobile device replaces the television because the participant is "not really heavily invested in watching that show" but recognizes the benefit for his children. He not only avoids a potentially negative experience by switching devices, but also bonds with his wife through an EP. In this case, however, the first screen is not turned off or removed, but the respondent's attention is diverted to the second screen. Similarly, the following respondent describes how attention shifts from one engagement platform to another to establish relatedness:

"...if I can tell that they just want information really quick, I'll just give it to them. But if they're trying to talk to me or, like, if they want to keep the conversation going, I'll try to keep it going as well, because it's like I don't think that my movie is more important than they are."

In this situation, the participant uses the second screen to demonstrate to his peers that they are more important than digital content. The participant distinguishes between quick texts and actual conversations that facilitate community and relatedness. Subsequently, the participant's need to satisfy others takes precedence over his own first screen service experience, which he disengages from.

Experience Enhancement: Intrinsic Factors.

Whenever users are deeply immersed in service experiences, these are perceived as positive. Our participants reported a subsequent desire to further enhance their self-satisfaction with such service experiences by adding another engagement platform. For example, one participant explains:

"...in sports, I watch football on Saturday, and I play fantasy football, and so I use the other screen as a way to keep track of how my players are doing while watching what's going on live."

The respondent achieves autonomy and enjoyment by being able to "keep track" of players while "watching what's going on live". The participant enhances his first-screen experience via the fantasy football service experience, a type of video-game based on real sports teams, rather than completely switching engagement platforms and diverting his or her attention to only one device.

Experience Enhancement: Extrinsic Factors.

Finally, our participants also enhance already positive service experiences for extrinsic reasons, which include relatedness, or public sense of accomplishment. In these scenarios, the second screen empowers users not only to improve a service experience for themselves, but also for others:

Yeah, we were watching "Pirates: On Stranger Tides." And that part where Jack Sparrow jumps into that carriage and it's an old lady, and he -- you know, he steals her earring or whatever.

Oh, right.

We were like, hey, is that Judi Dench? So we looked it up. So it's usually when there's characters or actors or things like that we're, like, hey, -- what other movie are they in? They look familiar. And we'll Google it or look it up on IMDb.

Here, the user (together with others) supplements or enhances a group-based service experience by drawing on a second screen to gather additional information related to the primary service experience. Using multiple engagement platforms thereby helps to create social bonds. The availability of a second engagement platform, however, does not imply its use in every instance:

"When we're watching something kind of intense or playing a game or something, we just don't want any distractions. You need to have the full focus on whatever it is that we're doing. We try to, you know, keep our phones off."

Here, the group is already immersed in a service experience. Although the second screen is available, the group cohesively decides to refrain from using it, which underscores the group's relatedness and community orientation when engaging in digital service experiences.

6. Discussion

We used an interpretive phenomenological analysis to empirically explore how and why individuals use multiple engagement platforms to co-create digital service experiences. Most importantly, our study explores multi-platform engagement and its associated user experiences from a service science perspective. As such, this work is conceptually rooted in and contributes to the body of literature at the intersection of service-dominant (SD) logic [11], service innovation [12], and customer engagement [13]. Other work in disciplines ranging from cyberpsychology [8] to media studies [10] also recently began to investigate second screen use, although from a very different conceptual perspective and using very different methods; for example, Lochrie and Coulton [10] study social media discussions via mobile phones that is associated with popular TV shows in the UK, and Van Cauwenberge et al. [9] ran experiments to understand how second screen use influences cognitive abilities, including ability to comprehend content.

Our findings indicate that multiple engagement platforms are used either to avoid a potentially negative service experience or to enhance an already positive one. Users consciously co-create digital service experiences, and engagement platforms (second screens) enable them to do so. As such, our findings extend prior work by Chandler and Lusch [16], who argue that service experiences are many-to-many engagements, and that individual actors do not define a service experience. Rather, we found that our participants were capable of defining, customizing, and modifying their own service experiences in real-time, based on their ongoing needs. We thereby also address recent calls for empirical work on engagement platforms more holistically [13] and extend recent conceptual work in this important area of inquiry [14, 27, 28].

Our findings also indicate that use of multiple engagement platforms is characterized by an inherent duality: Users consciously use engagement platforms both for experience enhancement *and* experience avoidance, thereby pointing to seemingly contradictory ends of a wider spectrum. Whereas intrinsic factors appear to be a major determinant of a user's self-centric multi-platform engagement, extrinsic factors and the desire to improve or maintain a positive service experience for others are equally important drivers characterized by a degree of duality. Therefore, engagement platforms, as a type of information technology, are not only used in seemingly opposite ways, but both extremes ultimately intend to improve

the service experience as such. The “duality of technology” was initially discussed by Orlikowski [48]. Her view is that technology should be considered a medium of human action that does not control social interaction, but rather facilitates certain outcomes. Orlikowski argues institutional properties inherent in organizations always influence how people use technology, which leads to a situation in which “individuals may have little control over when or how to use technology” [48]. Although some of our participants reported that social contexts and types of service experiences such as group movie nights prohibited the use of multiple engagement platforms, we did not see a lack of control but observed that engagement platforms, as a distinct type of information technology, indeed facilitates social interactions while at the same time facilitating desired outcomes. As a matter of fact, our participants displayed a constant level of control when engaging, or not engaging, with multiple platforms and thereby with their service experiences. Of course, we have not yet explained the mechanisms underlying the duality of engagement platforms more specifically, nor do we seem to fully understand the construct of duality in service systems more holistically. Exploring the multiple roles of information technology in service provides ample opportunities for future research.

One of the key challenges our study highlighted is the current lack of knowledge related to best practices for designing new digital service experiences involving multiple engagement platforms. Currently, the use of multiple engagement platforms is user dependent and independent of the firm's value proposition. We suggest three key areas for future research: (1) experimental studies with human participants could be used to help build a causal model of second screen use; (2) ethnographic case studies could provide substantial insights into existing applications (e.g., Disney's “Second Screen live” experience), which could complement experimental studies and consider the business context of second screen use in detail; (3) theory development and validation of the duality of multiple engagement platform use could provide insights into how new value propositions can be designed when second screen use is an integral part of such prospective experiences. It will be equally important to gain a better understanding of how actors perceive value in multi-engagement platform contexts, for example, when interacting with an organization's entire engagement ecosystem [14].

Of course, our study has limitations. For instance, although the interpretive phenomenological analysis enabled us to explore second screen service

experiences from the perspective of individual participants, our sample may not be representative of a population at large. Therefore, we cannot argue that our findings are context independent, but rather represent one potential foundation for future research.

10. References

- [1] J. Burghin, M. Chui, and J. Manyika, "Ten IT-enabled business trends for the decade ahead," *McKinsey Quarterly*, 2013, May, pp. 1-52.
- [2] Pew Research Center (2014): "Mobile Technology Fact Sheet". Available online at <http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/> [Accessed January 8th, 2014].
- [3] CISCO (2014), "Global Mobile Data Traffic Forecast Update 2013-2018". Available online at http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.html. [Accessed January 8th, 2014].
- [4] MediaTV, (2012), "Decrypting the second screen market". Available online at <http://www.mediatvcom.com/wp-content/uploads/2013/01/Mediatvcom-Second-Screen-White-Paper.pdf> [Accessed January 8th, 2014].
- [5] SkyTV (2012), "How technology and social media are changing the way we watch TV". Available online at http://corporate.sky.com/documents/sky_views/youngov_research_infographic. [Accessed January 8th, 2014].
- [6] Verizon (2012), "65% of Americans will use PC, Smartphone, Tablet while Watching Presidential Debate". Available online at <http://forums.verizon.com/t5/Verizon-at-Home/65-of-Americans-Will-Use-PC-Smartphone-Tablet-While-Watching/ba-p/487225>. [Accessed January 8th, 2014].
- [7] Ericsson (2012), "TV and video: an analysis of evolving consumer habits". Available online at http://www.ericsson.com/res/docs/2012/consumerlab/tv_video_consumerlab_report.pdf. [Accessed January 8th, 2014].
- [8] S. A. Brasel, J. Gips, "Media Multitasking Behavior: Concurrent Television and Computer Usage", *Cyberpsychology, Behavior, and Social Networking*, 14(9), 2011, 527-534.
- [9] A. Van Cauwenberge, G. Schaap, van Roy, R. "TV No Longer Commands Our Full Attention: Effects of Second Screen Viewing and Task Relevance on Cognitive Load and Learning from News", *Computers in Human Behavior*, 2014, Available Online 18 June 2014.
- [10] M. Lochrie, P. Coulton, "Sharing the Viewing Experience through Second Screens", *Proceedings of the EuroITV Conference*, July 4-6, 2012, Berlin, Germany.
- [11] S. L. Vargo, S. L., R. F. Lusch, "Evolving to a New Dominant Logic for Marketing", *Journal of Marketing*, 2004, 68(1), pp. 1-17.
- [12] A. Ordanini, P. Parasuraman, "Service Innovation Viewed through a Service-dominant Logic Lens: A Conceptual Framework and Empirical Analysis", *Journal of Service Research*, 2011, 14(1), pp. 3-23.
- [13] R. J. Brodie, L. D. Hollebeck, B. Juric, and A. Ilic, "Customer engagement: Conceptual domain, fundamental propositions and implications for research," *Journal of Service Research*, 2011, Vol. 14 No. 3, pp. 252-271.
- [14] C. F. Breidbach, R. J. Brodie, L. D. Hollebeck, "Beyond Virtuality: From Engagement Platforms to Engagement Ecosystems", *Managing Service Quality* (in press).
- [15] M. Sawhney, G. Verona, and E. Prandelli "Collaborating to create: The internet as a platform for customer engagement in product innovation", *Journal of Interactive Marketing*, 2005 Vol. 19 No. 4, pp. 4-17.
- [16] J. Chandler, R. L. Lusch, "Service Systems: A Broadened Framework and Research Agenda on Value Propositions, Engagement and Service Experiences," *Journal of Service Research*, Forthcoming.
- [17] S. Michel, S. W. Brown, and A. S. Gallan, "An expanded and strategic view of discontinuous innovations: Deploying a service-dominant logic", *Journal of the Academy of Marketing Science*, 2008, 36, 54-66.
- [18] A. L. Ostrom, M. J. Bitner, S. W. Brown, K. A. Burkhard, M. Goul, V. Smith-Daniels, . . . E. Rabinovich "Moving forward and making a difference: Research priorities for the science of service", *Journal of Service Research*, 2010, 13(1), pp. 4-36.
- [19] A. Raj, V. Sambamurthy, "The growth of interest in services management: Opportunities for information systems scholars," *Information Systems Research*, 2006, Vol. 14 No. 4, pp. 327-331.
- [20] A. Mollen, A. H. Wilson, "Engagement, telepresence, and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives," *Journal of Business Research*, 2010, Vol. 63 No. 9/10, pp. 919-925.
- [21] A. M. Saks, "Antecedents and consequences of employee engagement," *Journal of Managerial Psychology*, 2006, Vol. 21 No. 7, pp. 600-619.
- [22] M. K. Jennings, V. Zeitner, "Internet use and civic engagement: A longitudinal analysis," *Public Opinion Quarterly*, 2003, Vol. 67 No. 3, pp. 311-334.
- [23] J. L. Bowden, "The process of customer engagement: A conceptual framework," *Journal of Marketing Theory and Practice*, 2009, Vol. 17 No. 1, pp. 63-74.

- [24] P. Patterson, T. Yu, K. De Ruyter, K. "Understanding customer engagement in services," *Advancing Theory, Maintaining Relevance, Proceedings of the 2006 ANZMAC Conference, Brisbane, 4-6 December.*
- [25] J. Van Doorn, K. E. Lemon, V. Mittal, S. Naß, D. Pick, P. Pirner, P. C. Verhoef, "Customer engagement behavior: Theoretical foundations and research directions," *Journal of Service Research*, 2010, Vol. 13 No. 3, pp. 253-266.
- [26] V. Ramaswamy, "Leading the transformation to co-creation of value," *Strategy & Leadership*, 2009, Vol. 37 No. 2, pp. 32-37.
- [27] S. Nenonen, P. Frow, A. Payne, and K. Storbacka, "Co-creating in actor networks: Identifying attractive morphotypes," Paper presented at the 2012 Global Marketing Conference, Seoul, July 19-22.
- [28] V. Ramaswamy, and F. Gouillart, "Building the co-creative enterprise," *Harvard Business Review*, 2010 Available at: <http://techarbour.com/demosite/wpcontent/uploads/2011/02/r1010j-pdf-eng.pdf> [Accessed April 29, 2013].
- [29] D. J. Teece, G. Pisano, and A. Shuen, "Dynamic capabilities and strategic management", *Strategic Management Journal*, 1997, Vol. 18 No. 7, pp. 509-533.
- [30] F. Gallouj, P. Windrum, "Services and services innovation" *Journal of Evolutionary Economics*, 2009, 19, pp. 141-148.
- [31] B. Edvardsson, A. Gustafsson, P. Kristensson, L. Witell, "Service innovation and customer co-development", In P. P. Maglio, C. A. Kieliszewski & J. Spohrer (Eds.), *Handbook of Service Science* (pp. 561-577), 2010, New York, NY: Springer.
- [32] C. F. Breidbach, P. Smith, L. J. Callagher, "Advancing Innovation in Professional Service Firms: Insights from the Service-dominant Logic", *Service Science*, 2013, Vol. 5, No. 3, pp. 263-275.
- [33] J. Chandler, S. Chen, "Reconceptualizing Prosumers from a Service Experience Perspective," 2014, Working Paper, California State University, Fullerton.
- [34] J. S. Chen, H. T. Tsou, and A. Huang, "Service delivery innovation", *Journal of Service Research*, 2009, 12(1), pp. 36-55.
- [35] M.J. Bitner, W. T. Faranda, A.R. Hubbert, and V.A. Zeithaml, "Customer Contributions and Roles In Service Delivery," *International Journal Of Service Industry Management*, 2007, 8 (3): 193 – 205.
- [36] C. Moustakas, "Phenomenological research methods", 1994, London, Sage
- [37] J. A. Smith, M. Osborn, "Interpretative Phenomenological Analysis", in J. A. Smith "Qualitative Psychology: Practical Guide to Research Methods", 2007, London, Sage.
- [38] M. J. Packer, R. B. Addison, R. B. (Eds.) "Entering the circle: Hermeneutic investigation in psychology", 1989, Albany: State University of New York Press.
- [39] A. C. Edmondson, S. E. McManus, "Methodological fit in organizational field research", *Academy of Management Review*, 2007, 32(4), 1155-1179.
- [40] K. M. Eisenhardt "Building theories from case study research" *Academy of Management Review*, 1989, 14(4), 532-551.
- [41] M. B. Miles, A. M. Huberman, "Qualitative data analysis" (2nd ed.), 1994, Thousand Oaks, CA: Sage Publications.
- [42] Y. S. Lincoln, E. G. Guba, "Naturalistic inquiry" 1985, Newbury Park, CA: Sage Publications.
- [43] M. Healy, C. Perry, "Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm" *Qualitative Market Research: An International Journal*, 2000, 3(3), 118-126.
- [44] N. E. Coviello, "Integrating qualitative and quantitative techniques in network analysis", *Qualitative Market Research: An International Journal*, 2005, 8(1), 39-60.
- [45] K. de Ruyter, N. Scholl, "Positioning qualitative market research: reflections from theory and practice", *Qualitative Market Research: An International Journal*, 1998, 1(1), 7-14.
- [46] R. K. Yin, R. K. "Case study research: Design and methods" (3rd ed.), 2003, Thousand Oaks, CA: Sage.
- [47] K. M. Eisenhardt, M. E. Graebner, "Theory building from cases: Opportunities and challenges", *Academy of Management Journal*, 2007, 50(1), 25-32.
- [48] W. J. Orlikowski, "The Duality of Technology: Rethinking the Concept of Technology in Organizations", *Organization Science*, 1990, 3(2), 398-427.