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Engaged, but with what? Objects of engagement in technology-aided B2B customer interactions

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ABSTRACT

Using new technologies in customer interactions is a popular way of trying to increase customer engagement. It is, however, unknown how such efforts by marketers' affect engagement, and particularly to what that engagement relates to. By analysing interview and observation data, the engagement manifestations of customers of a B2B company using virtual-reality technology were studied. The results show that customer engagement can be targeted at not only brands or firms but also the service the firm offers or the technology that enables the service. It is argued that the different objects of engagement can coexist and support each other but engagement with the firm is less susceptible to fluctuations. Marketers should be aware of what triggers customer engagement and what it is targeted at.

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Customer engagement; objects of engagement; virtual reality; marketing technology; business-tobusiness

Introduction

A frequent assumption in practitioner-oriented literature, in particular, is that 'engaging' technologies and applications improve customer relationships (Briggs, 2010; Gallaugher & Ransbotham, 2010; Sashi, 2012). In particular, marketing literature has frequently focused on the occurrence of customer engagement in online environments – how consumers' various brand-related online activities affect their relationship with those brands (Cheung et al., 2011; Mollen & Wilson, 2010). However, what is often claimed to be customer engagement (e.g. liking, sharing, scrolling) may only be an artefact of the person's engagement with the technology, not with the brand, as pointed out by Hollebeek et al. (2014b).

Technology-oriented user engagement is well acknowledged in the research on information systems and refers to the way an IT user interacts with an IT application (O'Brien & Toms, 2008; Sharafi et al., 2006). In this paper, it is argued that engagement with technology, service, and firm or brand are distinct, and that one can be engaged with any of these objects of engagement during a customer interaction. Thus, the research question is this: What are the focal objects of engagement in technology-aided customer interactions and what triggers customer engagement, or disengagement, in relation to the different objects of engagement? This dilemma is particularly prominent in situations in which new, exciting, and often expensive technologies are used in business-to-business (B2B) customer interactions. Do they allow the creation of engagement with the service, brand or firm, or is the engagement merely with the technology? Or, do increases in engagement with technology also mean increases in other objects of engagement?

The study contributes to the engagement literature in integrating the perspective of technology engagement into the concept of customer engagement. Theoretically, we consider the use of a marketing technology to contain factors that trigger engagement and thereby affect customers' engagement states and levels (Mollen & Wilson, 2010). The distinction between different objects of engagement has rarely been made in marketing research as customer engagement is often argued to intrinsically include all engagement manifestations the customer expresses (Cheung et al., 2011; Vivek et al., 2018) – even if the customer is engaged only with the technology. Several scholars have also claimed that the recent customer-engagement research has remained on such a general level that the effect of distinct marketing activities, touchpoints and technologies (except for social media) has been neglected (Breidbach et al., 2014; Maslowska et al., 2016; Vivek et al., 2018). Moreover, customer engagement has been studied significantly less often in B2B than in B2C customer relationships even though it is arguably a crucial factor in long-lasting, interactive and complex customer relationships (Brodie et al., 2016).

This paper studies the research question in the context of virtual-reality (VR) technology. There are numerous examples of VR applications used in actual business settings. For example, Audi uses VR to allow customers to customise their vehicles, and Airbus uses the technology to showcase aircraft to their B2B customers (O'Brien, 2016). From the perspective of customer engagement, VR offers a fruitful research context because it allows a new way of interacting with a firm. It is an immersive technology that can be used to create strong mental models and vivid imagery of an object or environment (Bowman & McMahan, 2007; Choi & Taylor, 2014), but its use often involves human contact. When used correctly, product demonstrations in VR can enhance product knowledge, brand attitude, and purchase intention (Li et al., 2002). Moreover, as VR technology and the required software are still relatively costly, a potential threat is that the investment is not profitable if the focal objects of engagement are technology instead of the service or the firm.

The study adopts a multi-method approach (Silverman, 2001) that involves observing and interviewing customers of a large B2B company in the business of nature-resource management during and after having used a VR application depicting resource and landscape management and logging operations. It is assumed that in these contexts, service simulations in VR could induce customer engagement because of the complex nature of the operations that are difficult to engage with without visual illustration and immersion. In total, 64 customers test-used the application. The observation notes and interview transcripts were analysed thematically to find out how the use of a VR application affects customer engagement with the technology, depicted service and brand or firm.

Literature review

Customer engagement

In marketing, customer engagement has traditionally been thought to explain consumers' physical, cognitive and emotional presence in their relationship with a service

organisation (Patterson et al., 2006) and their motivational behaviour that goes beyond the traditional boundaries of customer behaviour (Van Doorn et al., 2010). Customer satisfaction and recurring purchasing, for example, do not sufficiently explain why a customer would advocate a particular company or take part in their crowdsourcing initiatives (Bowden, 2009; Pansari & Kumar, 2017). As a motivational state, customer engagement may also explain greater brand loyalty (Jaakkola & Alexander, 2014; O'Brien et al., 2015) and brand identification (Moliner et al., 2018). As a result, customer engagement is thought to increase the overall value a specific customer generates for a company (Kumar et al., 2010).

Inherent in the concept of engagement is an interactive relationship between two parties, which allows the subject to reach a motivational, personally fulfiling state (Handelsman et al., 2005; Resnick, 2001) that leads to the abovementioned positive outcomes. This ties customer engagement conceptually to the service-dominant (SD) logic and the idea that value is always co-created in interaction with multiple actors, always including the beneficiary of the service (Vargo & Lusch, 2004, 2008, 2017). Aligning with the SD-logic, Hollebeek et al. (2019) define customer engagement as the motivationally driven, volitional investment of focal operant resources (knowledge and skills) and operand resources (e.g. equipment) in brand interactions in service systems. Another relevant proposition of the SD-logic for customer engagement is the proposition that the beneficiary (Grönroos, 2011; Vargo & Lusch, 2004) always uniquely, experientially and contextually determines value. This view highlights the subjective evaluation of customer experiences: the user of the service might value different service aspects than the service provider has originally intended, and a 'customer experience' might encompass other activities than simply purchasing or using a product or a service.

Based on the premises of the SD-logic, Brodie et al. (2011) claim that customer engagement occurs by virtue of interactive, co-creative customer experiences with a focal object or agent such as a brand, which is manifested as emotional, cognitive and/or behavioural engagement. In line with this view, other literature has pointed out that engagement levels of a particular subject vary over time and they may increase or decrease because of some specific interactions with the engagement object (Bejerholm & Eklund, 2007; Hollebeek, 2011). Thus, in this paper, customer engagement is conceptualised as a potentially varying psychological state and the following emotional, cognitive and/or behavioural engagement manifestations. This view allows the investigation of the effect of a marketing technology on customer engagement during and after a specific instance of use. We also acknowledge the potential of customer disengagement, which takes place when engagement levels decrease due to a disturbance in a customercompany relationship (Bowden et al., 2015; Hollebeek et al., 2014a).

While customer engagement has been typically discussed from the B2C perspective, research on customer engagement in B2B contexts has recently gained ground. For example, the derived nature of demand, multi-person buying process, high degree of interaction, and the formalisation of exchange make the B2B context different from the B2C context when inspecting customer engagement (Reinartz & Berkmann, 2018). Consequently, scholars have discussed concepts such as partner engagement (Reinartz & Berkmann, 2018; Vivek et al., 2016), actor engagement (Alexander et al., 2018; Storbacka, 2019) and collective engagement (Kleinaltenkamp et al., 2019) to account for the collaborative, multi-actor nature of the context. As distinct customer engagement behaviours of

business actors, the literature discusses customer referencing (Jaakkola & Aarikka-Stenroos, 2019) and market innovations (Storbacka, 2019), which can occur thanks to single persons or larger entities. In this paper, the focus is on the dyadic, micro-level interaction between business actors and their customer engagement manifestations (Alexander et al., 2018), and it accounts for both engagement behaviours, as well as emotional and cognitive engagement manifestations of the actors (c.f. Reinartz & Berkmann, 2018).

Objects of customer engagement

The marketing literature has often studied customer engagement through the perspective of a customer's engagement with a brand. Customer brand engagement has been defined as 'the level of an individual customer's motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in direct brand interactions' (Hollebeek, 2011, p. 790). According to this view, customer brand engagement should improve relationship quality between the customer and the firm and thereby increase customer loyalty. Sprott et al. (2009, p. 92) dig deeper into the relationship between consumers' self-concept and brand engagement and suggest brand engagement in self-concept to mean a consumer's 'propensity to include important brands as part of how they view themselves'. It is found to relate with other important brand-related consumer constructs such as brand attention, preference and loyalty.

While customer engagement and brand engagement have been popular research topics in marketing literature, some have called for more precise scrutiny of the variety of customer experiences in which customer engagement may occur and the objects the engagement could relate to. Vivek et al. (2018), for example, argue that customer engagement should be seen as a connection not only with a brand but also with any of its marketing elements, such as events, self-service, advertising, and social media activities. Maslowska et al. (2016) introduced the concept of a customer engagement ecosystem, which consist of customer brand experience, brand dialogue behaviours, shopping behaviours and brand consumption. With a similar goal in mind, Breidbach et al. (2014) differentiate between engagement platforms and engagement ecosystems. Engagement platforms refer to any customer touch points where actors exchange resources and co-create value, and they can be physical or virtual, interactional or transactional. Engagement ecosystems, on the other hand, are configurations of individual yet mutually dependent engagement platforms.

In addition to these overarching conceptualisations of how and where customer engagement occurs, the marketing literature has also focused on more specific cases of customer engagement. Engagement that takes place in digital environments has received particular attention. Phenomena that have been studied include online brand engagement (Mollen & Wilson, 2010), customer engagement in an online social platform (Cheung et al., 2011), and consumer brand engagement in social media (Hollebeek et al., 2014b). In essence, these writers argue that a digital medium, an online community, or a technological environment used for a marketing purpose can have an effect on customer engagement in providing improved access to brand-related content and allowing customer–company interactions to occur. On the other hand, likes, shares, comments and concentrated use are typical examples of behaviours that are thought to manifest behavioural customer engagement in social media and online communities (Briggs, 2010; Gallaugher & Ransbotham, 2010; Gummerus et al., 2012; Sashi, 2012; Solem & Pedersen, 2016).

According to the information-systems literature, however, these behaviours, as well as the more general motivational and psychological states when using digital tools and applications, could be argued to reflect user engagement, and not necessarily brand engagement, for example, Zheng et al. (2015). User engagement with technology refers to the way a person interacts with an information system or a technological device – how often, how well, and for what tasks (O'Brien & Toms, 2008; Parameswaran et al., 2015; Sharafi et al., 2006). According to this paradigm, a central question is the person's ability to accept, adopt and effectively use information systems – tasks that are thought to benefit from user engagement (Kim et al., 2013; Parameswaran et al., 2015). According to Sharafi et al. (2006), the way individuals use an IT system reflects different engagement modes that are dependent on the locus of control (who controls the use, the user or the system), and focus of motivation (intrinsic or extrinsic motivation). The various engagement modes could be described as positive (efficiency/ productivity, ambition/curiosity, pleasure/acceptance) or negative (frustration/anxiety, avoidance/hesitation), depending on the locus of control and focus of motivation. Sharafi et al. (2006) found that positive engagement modes facilitate technology usage in the learning of new skills, for example.

There is, however, a scarcity of research in the field of information systems regarding the relationship between user engagement with technology and customer engagement, as the focus tends to be on user-centric issues such as task performance, user enjoyment, user satisfaction (Hwang & Thorn, 1999; O'Brien & Toms, 2008). Integrating the information systems-perspective into the marketing research on customer engagement is important because the ubiquity of virtual customer touchpoints (also, engagement platforms, Breidbach et al., 2014) has made the way an individual interacts with an IT system relevant also for customer relationship management. To accommodate these various views, Table 1 summarises the relevant engagement concepts concerning technology-aided customer interactions. It is noteworthy to point out that extensive reviews of customer engagement have been presented before (Brodie et al., 2011; Hollebeek, 2011; Maslowska et al., 2016), and, instead of listing all customer-engagement definitions, this summary focuses on the concepts that are most relevant to the research question of this study.

Theoretical framework

The research question of this study is: What are the focal objects of engagement in technology-aided customer interactions and what triggers customer engagement, or disengagement, in relation to the different objects of engagement? In their hallmark definition, Brodie et al. (2011, p. 260) state that customer engagement is a state that occurs 'by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand)'. What determines the focal agent/object is however not discussed. To distinguish the objects of engagement, it is necessary to scrutinise customers' engagement manifestations more precisely. Oftentimes research deems any engagement manifestation to be about what the study is about, be it a brand, advertisement, or online community, for example. Distinguishing the objects of engagement matters because engagement with a brand or the service arguably creates a more sustainable competitive advantage than engagement with technology, which may be imitated by competitors by creating similar applications. On the other hand, customers' willingness to adopt new technologies has had a central role in the rapid development of business models in many

Engagement concept	Definition	Source
Customer engagement	'A psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships. – A multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions'.	Brodie et al. (2011, p. 260)
Customer brand engagement	'The level of an individual customer's motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity in direct brand interactions'.	Hollebeek (2011, p. 790)
Brand engagement in self-concept	'Consumers' propensity to include important brands as part of how they view themselves'.	Sprott et al. (2009, p. 92)
Customer engagement ecosystem	'A conceptual model that encompasses brand actions, other actors, customer brand experience, shopping behaviours, brand consumption, and brand-dialogue behaviours'.	Maslowska et al. (2016, p. 469)
Engagement ecosystem	'A configuration of individual, mutually dependent engagement platforms that represent specific interactivity-facilitative loci'.	Breidbach et al. (2014, p. 592)
Engagement platform	'Physical or virtual customer touch points where actors exchange resources and co-create value'.	Breidbach et al. (2014, p. 592)
User engagement with technology	'A quality of user experiences with technology that is characterized by challenge, aesthetic and sensory appeal, feedback, novelty, interactivity, perceived control and time, awareness, motivation, interest, and affect'.	O'Brien & Toms (2008, p. 949)

Table 1. Summary of relevant engagement concepts concerning technology-aided customer interactions.

industries (e.g. Birinci et al., 2018; Zhang et al., 2015), which argues for creating engaging marketing technologies.

The current paper proposes that technological applications and their surrounding usage situations can trigger various kinds of engagement manifestations and they may be primarily targeted at different actors or entities. Previous research has studied how the use of web pages (Mollen & Wilson, 2010) and virtual stores (Sautter et al., 2004) affect customer engagement, and, in this paper, we investigate the usage of a VR application. Previously, Islam and Rahman (2017) have suggested that information quality, system quality, virtual interactivity and rewards affect customer engagement in case of an online brand community. O'Brien and Toms (2008) have suggested that specific system-design features can trigger points of user engagement and disengagement, which can include, for example, aesthetics, novelty, interest, goals, usability, and interruptions. In contrast to the existing literature, we want to distinguish the objects of engagement among various engagement manifestations that the use of a marketing technology can bring about. We theorise that in a context where such a technology is used to depict a service offering, there are three possible engagement objects: the technology itself, the service depicted and the brand or the firm offering the service.

The key argument of this paper is that the objects of engagement are organised in central and peripheral layers. Engagement with the brand or firm represents a more central object of engagement while engagement with technology is more peripheral. We claim that manifestations to any of these objects of engagement fall under the broader umbrella of customer engagement but engagement with the brand or firm is 'stickier' than engagement with technology. This logic is similar to how the layers of narrative communications about a company and its offerings have been argued to be structured,

the deeper 'why' arguments being more central, and thus stickier, than the 'what' or 'how' arguments (Sinek, 2009). Sinek (2009) argues that human beings process why, how and what arguments differently, which bears resemblance to the theoretical notion of central and peripheral argument processing (Petty et al., 1983) as well as the logic of cognitive tunnelling into central arguments (Dirkin, 1983). This logic is visible in marketing communications, for example, where the effectiveness of marketing claims depends on whether they relate to the central or peripheral attributes of the marketed product (Gershoff & Frels, 2015).

Engagement literature centrally argues that engagement levels fluctuate over time and are based on the previous levels of engagement and on external influences (Hollebeek, 2011; O'Brien & Toms, 2008). We argue that the dynamic nature of customer engagement partly emerges from customers making transitions between the objects of engagement. A customer who experiences positive engagement with a marketing technology is more likely to engage positively with the related service. A customer engaging with a service is more likely to engage with the related brand or firm. A customer engaged with the brand or firm, then again, will be more likely to engage with another service provided by the same firm. We also suggest that a customer can simultaneously be engaged with various objects but increases in engagement with one object (e.g. technology) do not necessarily mean decreases in another (e.g. brand). Figure 1 presents the conceptual relationships between the objects of engagement and the possible transitions between them, depicted by the arrows.

Methodology

Research context

The research was conducted in the context of a B2B company engaged in the management of natural resources. The company is in the process of implementing VR technology



Figure 1. Relationships between objects of engagement.

in its customer interactions, and, for this purpose, it has developed a VR application to study customer responses. The customers at whom the application is targeted are landowners, and include private individuals, associations, and small businesses that buy natural-resource-management services such as planning, property management and related operational services from the focal company, and sell wood. Thus, the customers are also suppliers of the company and the relationship is cooperative in nature. This is typical in the industry, which makes customer engagement a relevant factor for how the customer relationships are analysed and managed.

The application is a service prototype aimed at helping customers to make decisions about property management and logging in a visually illustrative and informative way. It depicts trees that can be virtually harvested using high-thinning, low-thinning, single tree removals and clear-cutting. The content of the application was developed in two stages. The first stage involved scanning a timber-rich site using a portable version of a terrestrial laser scanner with a high-precision GPS device. Second, the point-cloud data were connected to open-access terrain data. The developers created a model of the land property based on these data and location-tracked 360-photos. The application was developed with the help of a gaming engine (Unity) that enabled interaction with the digital surroundings. The user interface was based on an HTC Vive virtual-reality headset that allowed free physical movement in a limited area. The application also allowed the user to see detailed information about single trees, log them, and move by walking and teleporting via hand-held controls. It consisted of different kinds of timber compartments (woodland in a specific development phase), and in each one, there was information about that specific site and a management proposal. The user was also able to choose between three resourcemanagement operations and compare the revenues of each one in monetary terms. He or she was also able to cancel all the operations and restore all the trees.

Figure 2 presents two sample views in the application. The user controls the view with the hand-held device that is visible in the pictures. The first picture shows how the user is able to choose from different commands, and the second picture shows how the user has pointed to the highlighted tree, and the application identifies it as a birch tree, 19.42 metres high and worth 53.39 euros when harvested.

The company had invited customers to test the prototype application by email. In total 64 customers showed up, 45 males and 19 females. The youngest was 25 years old and the oldest 90. Some of the participants were also using other service providers but the majority collaborated only with the studied company. Thus, the results are believed to apply to contexts in which long and collaborative customer relationships are customary. Appendix gives a brief description of each participant's profile.

The use tests took place at the company's premises, the venue for many customer interactions. One of the authors and one research assistant operated the tests. The operator helped the participant to master the features and broadly explained what he/ she was expected to do. Otherwise, the participant was free to use the application in the way and for as long as he/she wanted to. The participants differed in the extent to which they explored the surroundings in the application and how much they used the different features. As all of the participants were subjected to the same kinds of instructions and use situations, the study is able to answer how the using of a VR application affects customer engagement, but not whether the effect of this technology is different from

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Figure 2. Example views of the application. Reproduced with the permission from the B2B company in this study.

other technologies or whether the effect is different from not using any technological application at all.

Data collection and analysis

A multi-method approach (Silverman, 2001) was adopted to gain a rich understanding of engagement manifestations in users of VR technology. After each use test, the participants were interviewed with the help of an interview guide. The interviews were recorded with the consent of the interviewee. Open-ended interview questions were used because

they provide a good balance between the richness of unstructured interviews and the rigour of structured interviews (Daymon & Holloway, 2010). The interviews also allowed the participant to reflect the application use and content from his/her own perspective (Babbie, 1989).

Besides the interviews, an observational approach was used to gain data from the use situation. With the consent of the participant, the use tests were recorded with a 360degree video camera to capture both the user's physical actions and the view in the virtual world from the screen next to him or her. The method is based on Biocca's (1997) study of people in a virtual world, who are simultaneously observed as avatars in a virtual space and as real bodies in the physical space. Such recordings are highly reliable research data in that they preserve and document events moment by moment, and allow repetitious viewing to build detailed insights into the studied phenomenon without interrupting the subjects (Jordan & Henderson, 1995; Mackellar, 2013). Notes taken on the recordings focused on the participants' physical movements and their comments and audible reactions. Observational methods also allow the interpretation of people's behaviour without their asking judgements about it (Streeck & Mehus, 2005). Video recordings were used in line with the dual-video strategy to facilitate the interpretive analysis of social interaction (Jordan & Henderson, 1995; LeBaron, 2005). According to Knoblauch and Schnettler (2012), video recordings can be used to capture both the details of sequentially organising talk, as well as the nonverbal and material details and nuances in social interaction.

Participants were scheduled to have 30 minutes for using the application and for the following interview. Both the use situation and the interview were recorded with the prior consent of the participants. This resulted in 15 hours of video recordings and 8 hours and 45 minutes of audio recordings. The interviews lasted between 4 and 16 min. The participants who spent more time using the application tended to comment on the experience while using it, thus complementing the possibly shorter interview.

The research approach was interpretive in that most of the data was collected following naturalistic methodological procedures based on interviews, observation, and personal experience (Denzin & Lincoln, 2011). In terms of strategy, the principles of case-study research were adopted, meaning that the phenomenon is studied in a specific setting (Eisenhardt, 1989). Reliability in interpretive analysis refers to evaluating whether analysts' observations represent the practices they claim to represent (Arminen, 2017). To lower the risk of misinterpretation, the research team had expertise in the field of natural-resource management, and a deep understanding of all the features and contents of the application. To ensure the validity of the findings, the team met multiple times to discuss the themes and the empirical evidence.

One hundred and forty pages of observation notes and interview recordings were transcribed. Atlas.ti software was used for the data analysis. First, the results were categorised into three categories based on whether a found engagement manifestation related to technology, service or brand/firm. During the second phase, these categorised interview results were encoded into sub-categories representing the triggering factors, meaning the possible reason of engagement or disengagement. The observation notes were similarly encoded and analysed, with the exception that the participants' comments were connected to the use context (e.g. 'Wow, what happened [using the teleport]'). When a new theme arose in the text, it was given a code, and when a section reflected

a pre-identified theme, it was accordingly encoded (Glaser & Strauss, 1967). Engagement manifestations and their objects were observed when a participant used the application or when the participant mentioned them in the interview. Triggering factors were mentioned or observed together with the manifestations, thus providing a plausible reason for them. Finally, the transcripts, as well as the emerged themes, were analysed based on whether they reflected a transition, or a hindrance of a transition, between the focal objects of engagement. The transitions were primarily found in the observation notes.

Results

Manifestations towards all of the proposed objects of engagement (technology, service, brand/firm) were identified in the data. Technology novelty, application usability, powerful user experience and playful features were found to trigger engagement (disengagement) with technology. The possibility to participate in the service development, service information, personalised features and the possibility for social use triggered engagement (disengagement) with the service. Perceived dynamicity of the firm, one's personal relations to the firm and possibility to reduce business risks triggered engagement (disengagement) with the brand or the firm. Next, these triggering factors are presented in connection with the respective object of engagement. The participant number shown reflects the numbering in the Appendix and is followed by the source of the quotation.

Focal object of engagement: technology

Technology novelty

Participating in the test use of the application can be considered a clear sign of customer engagement as it was voluntary and required an investment of resources from the participant's side (e.g. time; Brodie et al., 2011). When the main reason for participation in the test use was asked, technology and technological progress were the most frequent reason and was mentioned by 39 participants. Fifteen of them named technology as the only reason for participating, while 14 of them mentioned that they had a hobby or work that related to technology.

I'm interested in digitalization and virtual reality and augmented reality services, too. (—) By chance, I have myself taken some 360-degree photos of my forests as well. (Participant 60, interview)

I am interested in all of these new things, and now in this case it was related to forest management. So I got interested because I've always been keen on new technology. (Participant 4, interview)

Application usability

According to the observation data, participants generally focused strongly on the technological features of the application at first, commenting on its usability and the different menus and commands. Those who learned how to use the application were enthusiastic about their new skills and the enjoyable use experience. These experiences reflect positive engagement modes, particularly pleasure/acceptance and ambition/curiosity (Sharafi et al., 2006), and the latter particularly when the participants strived to master the system. Mastering the system helped the participants to pay more attention to the service the application depicted.

The controls and selections were clear. At first I didn't realize what that round thing was [selection tool], but when I got the hang of it, it was much easier the second time. One's motoric memory plays a big role in learning to use the system. (Participant 19, interview)

On the other hand, some of those users who were not familiar with VR applications or devices found it challenging to internalise the logic of the hand-held controls and the menus. This resulted in uncertainty, which they expressed by asking questions and requesting confirmation of the appropriateness of their actions. Surprisingly, many of them were unsure of the kind of behaviour that was allowed in the application. These findings reflect Sharafi et al.'s (2006) negative engagement modes of frustration/anxiety and avoidance/hesitation, attributable to problems in the system design or to the user's lack of skill.

Can I just freely select any of them [compartments]? (Participant 45, observation)

These uncertainties also aroused negative feelings about the entire experience, which passivised some of the participants in that the operator was needed for each task the participant completed and there was no independent behaviour. This clearly hindered the transition of the object of engagement from technology to service – if the participant did not know how to operate the system, he or she could not internalise the service aspects either.

Powerful user experience

During the use, 29 participants explicitly expressed they were amazed by the experience. On the other hand, six participants stated that they were not impressed and that they had expected more from the technology. When the participants described their emotions in the VR environment, some mentioned the sounds of the application, as well as other sensations and details, such as the weather. Most of the participants who noted these details also said that the overall experience was pleasurable, and that virtually visiting one's own estate would be more enjoyable than visiting the physical one.

It's nice to enjoy nature when the sun is shining and the birds are singing and it looks nice [laughing]. But you go there when it's sleeting or there are deer flies attacking you ... So compared to that, this kind of visit is way more comfortable. (Participant 19, interview)

Some were clearly amazed because they were surprised of the technology and its spatial and visual effects. Many of the expressions uttered while using the application related to how some of the features worked and how certain tasks could be completed. For example, realising that the technology allowed you to take steps in the physical space and in the virtual world amazed some participants, as did some specific features that were clearly new to them, such as teleporting.

This can't be true! How can it [a tree appeared in front of the user while teleporting] come like that! (Participant 39, observation)

Another aspect that affected the user experience was the perceived realism of the application; however, this varied among the participants. Some felt like they were actually in a forest when using the application, which increased engagement with the technology,

while others criticised the lack of realism. Some of the interviews indicated that a high level of engagement to the traditional way of doing business in the field made one more critical towards the technology, or at least expecting more regarding the visuals. Disappointment with the lack of realism seemed to trigger disengagement with the technology.

In this virtual world, you feel like being in the forest, like inside of it. (Participant 48, interview)

It models the trees! Nothing more. A terrain model on some level. But no rocks. (Participant 19, observation)

The experience was quite much in line with what I expected. The virtual world did not feel completely real because some elements were missing. I would want it to feel more realistic. (Participant 22, interview)

Playful features

Most participants clearly had fun while they were using the application and completing the tasks enabled by the application, and the emotion was not attributable to the service, but to the technology alone. Similar emotions have been identified in earlier literature studying virtual and augmented-reality technology (Javornik, 2016; Scholz & Smith, 2016) but not so in user-engagement literature (O'Brien & Toms, 2008; Sharafi et al., 2006). In the studied case, the playful features of the application provoked 12 participants to playful behaviour such as joking, playing and goofing around.

I would be that [Super] Mario jumping around in this area [teleporting] ... Uaah, this is horrible, I want to get rid of this tree [jumped right next to a tree]! (Participant 29, observation)

I fear for the trees in Finland if my sister and I start harvesting with this. (Participant 29, interview)

Engagement with the technology was also manifested in unusual ways of using the application. Some participants wandered around and explored the environment while commenting on seemingly irrelevant details and features. Some tried to find the limits of the virtual world. These behaviours represent the game-likeness many attach to VR technologies regardless of the service they depict. They reflect the engagement mode ambition/curiosity (Sharafi et al., 2006) in that they are aimed at taking control of the system. Engaging in these behaviours, however, seemed to distract the participant from the service aspects of the application.

Is it possible to go to the branches or do I have to stay on the ground? (Participant 26, observation)

Focal object of engagement: service

Possibility for co-development

Technology was seldom the only expressed reason for participating in the research, and many indicated that they wanted to participate because of a service the technology could provide for. These participants had a clear customer need that made them to invest their resources, such as time, to test use the application (Brodie et al., 2011). Customer

engagement was also manifested when the participants came up with development ideas for the service (Jaakkola & Alexander, 2014), which was done by a vast majority of the participants.

There were two types of development suggestions. First, many discussed how the application could better serve urban or remote landowners.

I want to be involved in developing new things. Digital services for remote owners, especially for remote owners. I think this is very practical for them. (Participant 31, interview)

Second, some suggested more specific service ideas that related to property management procedures or additional information that could be added to the application.

This could be taken much further, to have a more extensive plan of what happens after a clear cutting, what happens after that and what should be done. And for a rookie like me, the step before that, – to have some instructions and to see what it looks like after using a brush cutter. (Participant 35, interview)

I think this could be used to predict storm or insect damage. (Participant 3, interview)

While new service ideas are usually seen as true engagement, they could have been given partly for courtesy reasons: when a person attends a use test of a new application, he or she may feel obliged to come up with a suggestion for improvement or it is the socially accepted way of behaving in the situation. Still, this is a popular way of increasing customer engagement among practitioners: companies engage their customers by actively asking their feedback and creating situations where customers feel natural to provide their ideas.

Service information

Participants also frequently commented on the powerful visualisations and concrete way of presenting information, which many felt to add value to other, more traditional means. A clear majority, 43 participants, described the system as an illustrative or helpful way in which to present information. Some of them paid attention to the single-tree-level information, which is not the usual way of providing information in conventional service encounters in the field.

Visualizations and the fact that I am really here on my property make the experience better compared to only looking at a picture ... Things can be concretized better. (Participant 6, interview)

Illustrative and concrete. It was really useful to see what happens if I select this and remove that tree, and to see the price and other information about that tree. (Participant 21, interview)

The detailed way of providing information was also thought to carry risks as a few participants criticised the level of detail in the application, suggesting the details were irrelevant and drew the user's attention to things that are not useful when making property management decisions.

Many sought to understand the differences between the various management operations by actively comparing the monetary and the visual results, something that was also new in the field. This feature seemed to increase the participant's cognitive engagement with the service as it allowed them to learn something new.

It was possible to test the different operations, and it is not necessarily clear to everyone what a plot looks like after a clear-cutting, for example. That is usually a reason for criticism afterwards; the land has become scrubby and so on. (Participant 16, interview)

Personalisation

Eight participants suggested that attaching the VR environment to a real environment would increase the utility of the application. The most salient features in terms of enhancing its trustworthiness as a decision-making tool were the provision of more realistic surround-ings and the possibility to import one's own property data. The possibility of personalisation seemed to engage the customers with the service, yet the fact that this was not possible in the demoed application increased disengagement with the service among some.

It should be possible to see what one's own property looks like. Then one could compare ... how it would really feel, and it would be possible to make decisions based on this. (Participant 22, interview)

The exact process of bringing all the data about your own forest to the front of your own eyes, and how the process goes on from there ... That's important for the end user. This was in fact more like a technology demonstration. (Participant 32, interview)

Possibility for social use

Influencing other people through word-of-mouth or service referrals is an often-mentioned form of customer engagement behaviours (Jaakkola & Alexander, 2014). Thus, the fact that many of the participants discussed the social use of the service and their intention to share the experience with their friends and family, manifested customer engagement with the service. Some planned to use the service to influence their relatives and property co-owners. This was an interesting finding because the demonstrated service had initially been planned to be used alone or together with a company representative. Twenty-four participants raised social use to discussion.

You're asking me if I'm going to talk about this experience? Definitely. And to whom? To my family at least [laughing], your father was in a virtual forest, [laughing]. Yes, and I'm also a member of the regional committee [of the company], so in that meeting I'll probably mention I tested this. (Participant 23, interview)

Focal object of engagement: brand/firm

Dynamic firm creating new

For 10 participants, the very fact that the firm was testing VR technologies positively affected their attitudes towards the firm. These customers seemed to manifest engagement because the firm provides radically new services in a conservative market environment. Some participants reacted positively to a firm that was willing to be a front-runner in new technology and engaged its customers in the testing effort. Indeed, as companies aim to engage their customers through crowd-sourcing initiatives (Pansari & Kumar, 2017), the effort itself seems to increase emotional engagement among customers who appreciate such activities.

This [application] is unique in this sector and I haven't found anyone else in the industry doing things like this. So, I think this is a pretty interesting concept. And ambitious, too. (Participant 19, interview)

Personal relations to the firm

In some cases, the social relations between the customer and the firm representative were deep and resembled friendship. Many of these participants were doubtful that the VR experience would ever replace the traditional way of conducting business in the field. This view reflects the social dimension of the wood trade, which has traditionally been conducted in a social setting. For example, a company representative may visit the landowner's home to talk shop together over a cup of coffee and admire the property. These brand dialogue behaviours (Maslowska et al., 2016) manifest customer engagement with the firm and its representatives. Many participants feared that the new technology and service were meant to substitute the traditional shared experience and personal interaction, thus manifesting a decreasing level of engagement with the firm.

I don't want my personal salesperson to be substituted. The open discussion and sharing one's thoughts, and the opportunity to sniff the fresh forest together, they are all central parts of the wood trade. Also, the lovely little hustle that's going on, on both sides. This [the application] would support it by generating new ideas, but not by substituting that. (Participant 27, interview)

Possibility to reduce business risks

There seemed to be general distrust present in the industry and the application was sometimes thought to provide a way to reduce business risks. Some participants thought the application was a practical tool to learn and improve one's expertise and thereby guard oneself against cheating, thus increasing cognitive customer engagement with the firm. These participants thought the new service had the potential to decrease the risk of false assumptions by teaching the customer about the business. On the other hand, some participants were unsure if they should trust the content and information that was shown in the application, which seemed to create disengagement with the firm.

I guess you could benefit from using this by learning more about the business. (—) I mean, because I'm just a rookie, I don't know if and when I get cheated. (Participant 29, interview)

This decreases the number of wrong assumptions of what a property looks like after an operation. Or, it could decrease the number of reclamations and dispel the fears related to it. (Participant 12, interview)

A summary of the results

This study investigates the use of a VR application in customer interactions, with the aim of differentiating between objects of customer engagement and identifying the triggers behind the engagement manifestations. The research data were thematically analysed in accordance with the conceptual framework that suggests that, when using a marketing technology, primary objects of engagement can vary between technology, service and brand/firm. Factors that triggered the engagement manifestations are summarised in Table 2.

Manifestations towards all three theorised objects of engagement were found but engagement with technology or service was more prominent than engagement with the brand or firm. Certain dependencies between the findings and the characteristics between the participants were also found. Participants, who had not used VR technology

		Factors triggering engagement/disengagement	
Focal object of	2nd order		
engagement	themes	1st order concepts	Example quotation (participant no)
Technology	Technology novelty	Technology-related work or hobby, general interest in technology and technological progress	(The reason for participation was] Virtual reality, the newness aspect. I'm interested in new technology and how to utilise it, like, everywhere.' (5)
	Application usability	Learning to use the application, challenges to use the application, hesitation in what was allowed to do in the application	'If I'm completely honest, I don't know what to do. Should I be observing the trees?' (29)
	Powerful user	Amazement of the technology and the details of the application,	You're truly inside the model, you are at the right height, you can, like,
	experience Playful features	surprise or the technology, perceived realism of the application Game-like and playful application features provoking joking,	Valk on the ground there. (—) This really feit like walking: (34) 'Is there still something you want me to do or can I just play around with
		goofing and playing with the application	this?' (45)
Service	Possibility for co-	Asking for new service ideas, uncatered customer groups and	'I think it would be smart if one just told how much money she wants to
	development	better service features	get and then the system proposed different plans and one could just
	Service	Illustrative or educational way of providing service information,	'If, for instance, you disagree with something with the buyer, you can
	information	allowing the comparison of service options	now [with this service] share the same reality (—). It helps to reach
			a consensus. (ec)
	Personalisation	Realistic visualisations, personalised application and data	This is exciting, unbelievably wonderful! So, it is not yet possible to go to vour own forest with this? (33)
	Possibility for	Allowing sharing the service experience with others, encouraging	'I wanted to test this to see if I could get my relatives understand that it
	social use	social use	[the forest] won't look that horrible after cutting' (60)
Brand/firm	Dynamic firm	A firm developing new services and using new technology, a firm	'[l came because] I got a newsletter from [company name]. (—) I thought
	creating new	engaging its customers in service-testing	it might be interesting to see the current stage of development.' (11)
	Personal	Fear of losing a social connection to the firm, preference for face-to	'It has it's own kind of attractiveness to go into the forest and to discuss
	relations to the	-face interaction	face-to-face with the forest expert there.' (50)
	firm		
	Possibility to	Learning about the business, no more false assumptions, doubts	'Of course, if you don't know anything about timber prices, it can happen
	reduce business risks	about the correctness of the information shown	that you get cheated \dots [—) I think this could decrease the risk of aetting cheated in this business.' (9)

Table 2. Summary of the results.

before, were often positively surprised and quickly engaged with the technology and its features. Those with more experience with VR technology tended to be more ready to engage with the service as they did not need as much time to internalise the logic of the technology. Participants who were more experienced in the industry were sometimes disappointed with the service because the content of the application was deemed too simplistic or because they did not see any added value compared to the existing traditions. On the other hand, the less experienced customers engaged with the service particularly because of the illustrative and understandable visualisations. The theoretical implications of the results are discussed next.

Discussion

Theoretical implications

There is a discrepancy between how practitioners and academics view engagement. The former usually see it as an online best practice and the latter as an assessment of customer experience (Mollen & Wilson, 2010) or as a motivational relationship between a customer and a brand (Brodie et al., 2011; Hollebeek et al., 2019). The way technological devices and online media are described as 'engaging' implies that emotions, cognitions and behaviours related to technology are implicitly assumed to also mean engagement with the related brand but this assumption has rarely been tested. It is argued that the difference in terminology relates to the phenomenon that, when using and interacting with marketing technology, customer engagement may primarily relate to the technology used, service it provides, or the brand that offers it. In investigating this issue, we specified how these various objects of engagement are manifested and what triggers these manifestations in B2B customer interactions.

When the object of engagement was technology, customer engagement was triggered because of technology novelty or good usability of the application, powerful user experience and playfulness of the application. These experiences were partly due to the unusual spatial and bodily sense of the virtual world, which is a typical characteristic of VR technology (Bowman & McMahan, 2007). However, also other kinds of technologies have been found to bring about similar sensations (Islam & Rahman, 2017; O'Brien & Toms, 2008) so it can be argued that customer engagement is easily targeted at the technology when it provides unusually powerful and impressive user experiences, even in case of B2B customers. Usability of the application related also to decreasing levels of customer engagement among some participants because of problems in using and mastering it, as earlier identified in the user-engagement research (O'Brien & Toms, 2008).

Customer engagement that related primarily to the service the application enabled came about because of a specific need the application was able to provide for, useful service information, personalisation, or the lack of it, and possibilities for social use. These engagement manifestations were possible only after the participant had learnt to use the application. Information-systems literature has suggested that such user engagement is required so that the user can truly focus on the content of the application or system (O'Brien & Toms, 2008), and the present study supports this notion. This dynamic provides an opportunity to create a virtuous circle: the more effectively the person is able to interact with the system, the easier it is to engage with the service. Or, conversely, the

more the person has trouble using the system, the more difficult it is to internalise the service content.

Engagement with the brand or firm was less explicitly visible in the customer interactions, but the manifestations that were observed were triggered by the firm's efforts to create new services, fear of losing personal relations to the firm and possibility to reduce business risks because of the service. All of these manifestations relate to the participant's earlier or existing attitude about the firm, business or industry, and suggest that a B2B customer's emotional engagement is a strong influencer of his or her later engagement levels. Thus, while engagement with technology or service may be more easily triggered during a single customer interaction, engagement with a brand or firm is more dependent on the customer's earlier engagement states. This is particularly true in the current study context in which long-term customer relationships are customary (Benjaminsson et al., 2019). We, therefore, argue that, over time, engagement with a brand or firm varies less than engagement with technology or service, which are more dependent on the influences present in a single interaction situation. This finding contributes to the understanding of the fluctuations of customer engagement, something that has been earlier theorised but rarely empirically studied (Bejerholm & Eklund, 2007; Hollebeek, 2011).

To summarise, the empirical study supports the central and peripheral logic of objects of engagement, which is conceptually new and continues the theoretical development of customer engagement and its multifaceted nature, as discussed by Vivek et al. (2018), Maslowska et al. (2016), and Breidbach et al. (2014). These studies have identified distinct marketing elements, customer experiences and platforms that differently affect the formation of customer engagement, and the present study provides a new and complementary explanation to how customer engagement is formed and how it fluctuates. Customer engagement is not only dependent on what the customer sees or does, for example, but also to what those brand interactions make the customer focus his or her attention. This research also contributes to the literature in integrating the marketing perspective on customer engagement with the information-systems perspective. While the SD-logic-based view on customer engagement underlines the customer's motivation to invest resources in brand interactions (Hollebeek et al., 2019), this study highlights that the objects of those investments are not necessarily the brand itself but the service provided or the technology used. Even though all of these objects of engagement are thought to fall under the concept of customer engagement, distinguishing them is important: depending on the object of engagement, the strength and sustainability of customer engagement will be different.

Managerial implications

The question of where the customer's attention is directed at – technology, service or brand/firm – when using a VR application in customer interactions is managerially relevant: investment decisions related to VR require an understanding of the kind of responses one could expect. Developing a complex application that merely makes the customer engage with the technology is hardly profitable. The use of privately owned land is also an increasingly important issue (Pöhlker et al., 2019), which underlines the need to understand the way landowners make land-usage decisions. Based on the results

of the study, this section pinpoints managerial implications and suggestions for using VR applications in customer interactions.

Exploit technology novelty to provide memorable customer experiences

Many participants of the study were eager to try out VR technology and they appreciated the company's efforts to develop new services that apply the technology. Many also experienced strong positive and pleasant emotions, and frequent moments of amazement while using the application. From the perspective of customer engagement, this eagerness and energy should not be limited to commenting on technological features, and it should be extended to the showcased service. A trained operator who directs the customer's attention to the service features after the customer has learnt to use the application can do this.

Divert playful features of the technology to useful tasks

The study showed that many participants engaged in playful ways of using the application, which led to engagement with technology. Even though the application was not designed to be used in a playful manner, customers still found ways of diverting their attention to seemingly useless and playful activities such as finding the edge of the earth or trying to fly. The factors that trigger engagement should, therefore, be tied to the matters the company aims to communicate. Playfulness is inevitable and good in VR, but it should be diverted to useful tasks.

Engage early adopters through co-development of the service

The difference between early adopters and the rest of the customer population is as evident in the case of VR as with any technology. The nexus of early-adopter engagement in our study was the willingness to co-develop the application and an appreciation of the development efforts of the selling company. Companies should consider keeping early adopters in a co-development mode even when applications reach maturity. Early adopters could always face an incomplete work-in-progress application (beta testers) to maintain engagement. User testing could be a form of selling, an evolved version of 'test driving' combined with co-development.

Provide informative visualisations to enable engagement with the service

The results indicate that VR technologies help customers to visualise the outcomes of a service in a new and immersive way. Many also admired the ability to visualise different operational choices, and these scenarios and comparisons yielded increased engagement with the service. VR applications should, therefore, offer cognitively illustrative scenarios that can easily be displayed, which is particularly useful for the less experienced customers and new customers. Allowing the user physically to test a service feature and to compare various either-or and before-and-after scenarios may be effective in terms of focusing the customer's attention to the service benefits. Companies could also use the VR experience as a way to create an emotional assurance of the service delivery and as a concrete attachment to the contract – 'this is what we agreed' – to verify the match between the promise and the result. This could decrease perceived business risks and thus increase engagement with the firm.

Enable social use and sharing the experience with others

The study participants exhibited engagement with the service when they planned to use the service to influence others. The logical company activity is to ask these individuals to invite other customers or to act as trial operators in their own communities. This is likely to increase engagement with the firm among the advocates and their networks. On a practical level, companies should also consider how to capture the VR experience in pictures and videos for word-of-mouth purposes. On the other hand, those customers who are worried about the decreasing social connection to the firm should be given a chance to voice their concerns and, together with a trusted firm representative, plan how new technologies could be used for the benefit of the customer.

Limitations and future research

Like any research, this study has its limitations. First, the results are primarily expected to apply to technological applications that possess high instrumental value for marketing or service-delivery purposes. The results are thus expected to differ from those of applications that are developed only for entertainment purposes (e.g. VR games, VR travel applications). In addition, some of the presented findings might be specific to technology designed to be used to support buyer-seller dialogue. While the theoretical contribution of identifying the three objects of engagement is not technology. Transitions from one object of engagement to another provide another interesting avenue for future research. An experimental research setup measuring engagement with technology, service and brand or firm before and after a customer interaction would provide new information on how customer engagement varies.

The studied application was designed for B2B customers, who, for instance, aim for formalised exchange and involve multiple actors in decision-making (Reinartz & Berkmann, 2018). It may be that customer engagement would have to be manifested differently if the users of the application had been private consumers or used it without the presence of the researcher or other customers (c.f. Gummerus et al., 2012; Kaptein et al., 2015). Moreover, it was not possible to account for the customers' purchase behaviour because the application was developed for testing purposes. Future research should investigate how customer engagement with different objects of engagement affects the customers' purchase decisions. There is some anecdotal evidence that virtual and augmented-reality technology would promote the buying of more valuable goods (Vanian, 2016), and that it strengthens purchase intentions (Javornik et al., 2016), but more systematic research on business outcomes is needed.

Another limitation relates to the sampling and how the data were collected. Interviews lasted between 4 and 16 min as 30 minutes were reserved in total for each test use. This was due to a compromise between being able to collect research data and to attract customers of the company to participate. Even though all the participants were able to test all the application features and answer all the interview questions, the time for the interviews could have been longer to allow a more in-depth reflection. Further, the selling company invited the participants, and those who were interested in the topic came along. Thus, it is likely that there is a self-selection bias towards early technology adopters and customers who view the company favourably.

Finally, this research is limited only to the visible and audible engagement manifestations and it is plausible that all engagement manifestations were not revealed and that there are additional objects of engagement. However, as the primary goal was to study customer engagement when new marketing technology is used, the objects of engagement identified here were deemed the most relevant. Moreover, while it was possible to make some inferences about the 'stickiness' of the different objects of customer engagement, more long-lasting research (e.g. a study over a number of customer interactions) could elaborate on this notion. Indeed, researchers should seek new data-collection methods for studying customer engagement, which is a notoriously elusive concept (Brodie et al., 2011; Hollebeek et al., 2014b). These methods could include sensory activity tracking, neurophysiological measurement, or the keeping of detailed personal diaries.

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No potential conflict of interest was reported by the authors.

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Number	Gender	Age	Size of land estate (hectares)	Distance to land estate (km)
1	Female	64	79	1100
2	Female	63	55	340
3	Male	45	300	0
4	Male	61	120	300
5	Male	30	74	10
6	Female	42	N/A	N/A
7	Male	37	N/A	N/A
8	Male	25	30	130
9	Female	56	5	900
10	Female	35	34	80
11	Male	68	200	450
12	Female	42	N/A	N/A
13	Male	40	N/A	N/A
14	Female	36	N/A	N/A
15	Male	38	N/A	N/A
16	Female	27	N/A	N/A
17	Male	29	150	500
18	Male	56	28	130
19	Male	29	N/A	N/A
20	Female	46	N/A	N/A
21	Male	42	25	370
22	Male	62	180	430
23	Male	48	70	350

Appendix Participant profiles

(Continued).

Number	Gender	Age	Size of land estate (hectares)	Distance to land estate (km)
24	Male	48	4	170
25	Male	46	347	600
26	Male	32	90	170
27	Male	41	107	3
28	Male	68	300	440
29	Female	43	17	600
30	Male	60	350	300
31	Male	69	30	220
32	Male	51	50	350
33	Female	69	70	250
34	Male	55	24	18
35	Male	42	18	135
36	Female	27	39	5
37	Male	48	200	9
38	Male	30	40	5
39	Female	70	40	50
40	Male	55	30	310
41	Male	60	40	4
42	Male	90	12	37
43	Male	30	17	180
44	Male	32	90	197
45	Female	29	19	430
46	Male	50	15	130
47	Male	42	20	15
48	Male	46	60	450
49	Male	60	150	300
50	Male	41	90	23
51	Male	52	120	160
52	Female	27	N/A	N/A
53	Male	44	N/A	N/A
54	Male	41	80	0
55	Male	48	120	10
56	Male	37	30	50
57	Female	38	70	250
58	Male	45	N/A	160
59	Female	55	45	230
60	Male	46	2	100
61	Male	32	N/A	N/A
62	Female	32	2	500
63	Male	25	30	500
64	Female	43	N/A	N/A