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E-selling: A new avenue of research for service design and online engagement



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1. Introduction

Digitalization has led to fundamental changes in the organization of economic activity. Sociologists emphasize increased availability of information, improved comparability and faster access to potential suppliers as signs of the network society (Castells 2000, Castells et al. 2006, Fuchs 2013). Our contemporary social web, the network society, is epitomized by consumers' establishment of online social networks, access to a diversity of viewpoints and the capability to communicate their own ideas, as well as companies' increased capabilities to foster innovation (Oinas-Kukkonen and Oinas-Kukkonen 2013). These things have caused radical changes in the society around us and in the way that business is conducted.

E-selling has not been conceptualized in the information systems (IS), sales management or electronic commerce literatures. Thus, a conceptualization of e-selling and an exploration into how e-selling can be done needs development. Accordingly, the primary research question answered in this article is simple: *What is e-selling?* This article conceptualizes e-selling by investigating how human interaction works when it is dominated by digital exchange.

This article starts by defining e-selling in light of related e-commerce concepts (Shaltoni and West 2009, Brodie et al. 2007) and traditional face-to-face selling. The concept of *flow user experience* (Ghani and Deshpande 1994; Hoffman and Novak 1996, 2009; Hsu and Lu 2003) and one of its major facets, known as *immersion*

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ABSTRACT

E-selling is an activity that is distinct from e-commerce, e-marketing and e-retailing. E-selling is conceptualized to be computer-human dialog characterized by the digital spatio-temporal locus, the psychology of online persuasion, and complex perceptions of value. This definition warrants that flow user experience and human immersion are key premises for understanding e-selling. The ability to combine these with the different value drivers is identified as the key to e-selling success. This theoretical and conceptual article opens new avenues of research and design into online service design and user engagement. © 2014 Elsevier B.V. All rights reserved.

> (Adams 2004, Bjork and Holopainen 2004, Nechvatal 2009), are then linked to the activity of selling through the premises of persuasion and interactivity (Fogg 2008, Oinas-Kukkonen and Harjumaa 2009). Flow has been elevated as a key theoretical tenet to fill the knowledge gap about e-selling. Human immersion in e-selling is identified as having different degrees of detachment, realism and personification that influence e-selling. We argue that human immersion is a key premise for conceptualizing e-selling.

2. Definition of e-selling and related terms

2.1. Definitions

We define *e-selling* as human or human-like activity in which digital interaction is directed at increasing customer value by securing a business exchange for mutual benefit. E-selling, as an activity, contains *the use of human-like interactive sales psychology regardless of the extent to which the interaction is mediated, assisted or entirely performed by computers*. Naturally, there are different degrees to which e-selling systems can incorporate human psychology. A simple definition of e-selling as "valuable e-saleswork" includes mechanistic e-saleswork processes, such as order-taking, that do not use interactive psychology or human intelligence. As such processes in value chains can increasingly be automated, we choose e-selling to describe the demanding use of psychology in human-like interactions. We consider the important conceptual elements of e-selling to be *human interactivity, intentionality, persuasion, value creation* and *closing*. Along contemporary ethical

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guidelines in selling and sales management, seizing opportunities to appropriate customers' money without creating any value for them is not selling, but cheating. These elements are discussed below.

2.2. E-selling in light of proximate concepts

Despite the wide adoption of web-based, mobile and other IS for use in consumer markets, e-commerce actually has lacked a commonly accepted definition in the academic literature. Even the OECD has had trouble defining it (Riggins and Rhee 1998). We propose that selling and e-selling are conceptually distinct from e-commerce, eretailing and e-marketing. While commerce as a term is affiliated with the general phenomenon of business exchange, retailing is conceptually linked with the end-consumer interface. It emphasizes the presentation of price, quality, availability and selection, and, to an increasing extent, sustainability (Holbrook 1999).

Marketing can be considered as the general activity, set of institutions, and processes that that have value for customers, clients, partners, and society at large. On a general level, this includes selling and retailing. E-marketing is a rich concept, which has a variety of definitions; for example see Shaltoni and West (2009). For the most part, the definitions vary only in the technologies used, that is, the Internet versus the Internet on par with several other technologies. But they seem to share the understanding that e-marketing uses interactive technologies to create and mediate an information exchange dialogue between the firm and identified customers (Brodie et al. 2007).

E-marketing has been conceptualized to include the areas of sales activity, customer relationship management and research, analysis and planning (Brady et al. 2002). E-commerce can be defined through transactions, for example, "transactions conducted by buyers who perform online interactions with sellers and transact with electronic channels" or more broadly as "transactions conducted by buyers who perform online interactions with sellers and their final decisions are influenced accordingly, no matter which type of channel they choose to transact with at last" (Chen and Jiang 2009). On the other hand, a company can take an even broader perspective to e-commerce, incorporating in it the electrification of flows of information, goods, services and money (Urban 2003). Our conceptualization of e-marketing as a part of e-commerce is different in comparison with marketing scholars, who conceptualize marketing as a holistic concept that covers everything a company does (Gummesson 2008, Kotler 2010).

What then does not qualify as e-selling? We explicitly *exclude* from the definition of e-selling the following:

- *E-retailing* falls outside the definition of e-selling, since it only focuses on the flow of money and goods and process-oriented information exchange (Kim et al. 2011). For example, web stores and web retail outlets with complete self-service concepts do not exercise the interactive human activity of e-selling (Turban et al. 2009).
- Through a similar argument, *digital shelving* is not e-selling, and digital order-taking, cashing and delivery-handling are not e-selling (Trainor et al. 2011).
- The same applies for distinguishing between e-marketing communications and e-selling (e.g., Xiang and Gretzel 2010): marketing communication does not, at least not necessarily, engage in an interactive dialogue.
- Offering online product information, no matter how accurate, reflexive or tailored, is not interactive selling per se.
- On the business-to-business (B2B) front, traditional support systems such as CRMs and automated telephone services are neither considered e-selling – even if they might facilitate

selling or e-selling. The components of activity and interactivity, value-creation and closing a deal need to be fulfilled.

2.3. Objectives of digitalization of the customer interface

Three primary objectives for the digitalization of the customer interface are: (1) channel cost optimization, (2) improvement of channel collaboration and (3) increasing end-customer value-inuse (Otto and Chung 2000, Steinfield et al. 2002). E-selling is defined here to aim at increasing end-customer value, whereas achieving cost savings through the management of customer processes or relationships is beyond the definition of e-selling. The focus on value creation adds an ethical dimension to the definition, acknowledging critical management studies on selling (cf. Korczynski 2005). Given that the value of a seller lies in the interaction, the digitalization of the interaction and communication relationships governs, and often dominates, the patterns and results of a business exchange.

Thus, a typical contemporary e-selling activity is an intentional act of selling, performed by a computer-mediated social or a computerized agent, aimed at engaging a targeted customer in a digital interactive exchange with the intention of triggering and ensuring the buying of a value-creating offering. With current technology, such professional e-saleswork is still rudimentary. It can entail a salesperson answering product enthusiasts' discussion forum requests, targeting "virtual customers" with emails based on website participation, regular sales interactions in click-to-chat applications, virtual sales assistants or tailor-made web shop arguments geared at removing hesitation at the payment stage. While B2B applications are not that different, as is typical with business applications in their infancy, similar computer-human and digital human-to-human interactions around collaborative product configurators, payback time calculators and intranets represent more common current e-selling practice.

2.4. Spatio-temporal locus of interaction

There are various reasons why digitalization has challenged the rules of successful proactive behavior and interaction. When interactive selling behavior takes place in or through digital media, the *locus* of selling changes. Human–computer interaction research has demonstrated that humans are capable of establishing a communication relationship containing a sense of responsibility (Johnson et al. 2008) and elements of personality (Card et al. 1983, Nass and Moon 2000) with a computerized agent or a computer-mediated social agent. Immersion in computer-led narratives can be measured in terms of curiosity, concentration, challenge and skills, control, comprehension, empathy, and familiarity (Qin et al. 2009). In digital exchange, human and human-like interaction can thus take a number of forms that capture one's interest, such as reciprocity, responsiveness, trust and emotions.

According to Grudin (2007), human–computer interaction can be categorized largely as: (1) computers behaving like humans, (2) humans represented by computers, and (3) humans operating through computers. In our view, computers imitating humans should be considered the future of computing, while humans operating through computers constitutes a key contemporary development area (Shackel 2009). The vision of "computers behaving like humans" includes applications that are not only trying to portray a human as the centerpiece of interaction, but also "humanized" computer applications employing characteristics of human interaction (cf. Oinas-Kukkonen and Harjumaa 2008b, Oinas-Kukkonen and Oinas-Kukkonen 2013). Typically, this could be a very smart, interactive and persuasive web shop application (Punj and Moore 2007). The vision of "humans represented by computers" consists of the establishment of fictive or non-fictive human identities in digital space, whose daily actions are operated by computers, even if determined by a specific human from time to time. A virtual customer service person is one example. The third vision involves traditional human interaction through digital media, for instance, click-to-chat applications being a typical example. There is only a fine line in the third category between what is still considered e-interaction and what has already become a standard form of human interaction, like digital cell phone calls, text messages and e-mail.

The definition employed here is that, for fully digital human or human-like interaction, at least one of the key activities needs to be performed automatically by an information system or be aided by artificial intelligence. These activities can be selecting the target of interaction, timing or initiating the dialogue between the humans or determining the content of interaction, for instance. A text message or a cell phone call does not represent fully digital interaction, but an automated forwarding from a web page based on customer behavior into a problem-specific chat room service desk does. As selling is attributed to participatory human behavior, there is no e-selling unless behavior in the digital locus resembles human behavior at least to some extent.

E-selling is an activity challenged by the digitalization of interaction, where technology and partly or fully non-human actors define interactions. In other words, in these digitalized environments, the spatio-temporal locus (Meehl and Maccorquodale 1953) of behavior has changed – *the focus is now on the digital representations of human behavior and their interpretations* – and so have the means for persuasion. Regardless of which category of human-computer interaction and e-selling activity fall into, the interactivity and its psychology are still governed and restricted by "the digital." The notion of space is governed by the richness of the media and the notion of time by the immediacy of interaction. This spatio-temporal locus of interaction governs how the interactions can occur and sets limits to the use of psychology based persuasive interactions.

From the perspective of saleswork and its success, a change in the locus that governs interactivity has important implications. Imagine a street vendor doing saleswork at a regular farmers' market. Now compare this mental image to it being below freezing, the customers being 100 yards away and in a hurry to get somewhere. How significantly do the rules of interaction change? There are equally drastic differences in telephone selling: calling a business friend expecting a call versus cold calling strangers. Imagine a long business dinner and karaoke night with customers in Japan. How well could a hologram avatar participate in these B2B selling and buying rituals? If surgery can be taught in 3D by avatar teachers (Prinz et al. 2005) to avatar students with avatar bodies, what determines whether interactive selling can or cannot be done digitally? Understanding changes in the rules of psychology and persuasion associated with this shift into digital spatio-temporal loci is a major challenge and requires understanding flow user experience and human immersion into technology.

3. The role of flow user experience and human immersion in e-selling

The concept of flow (Csikszentmihalyi 1990) has been one of dominant early approaches into studying user experience in modern information technologies. In flow research, two schools of thought can be recognized: one that emphasizes the balance between the skills and challenges (Oinas-Kukkonen 2000), and one that focuses on total human sensation (Engeser 2012, Schiefele 2013, Schiefele and Raabe 2011). Several authors have conceptualized the flow experience in human-computer interactions (Trevino and Webster 1992, Ghani and Deshpande 1994,

Ghani 1995, Hoffman and Novak 1996, Oinas-Kukkonen 2000). Trevino and Webster (1992) describe the dimensions of the flow experience as "(1) a control dimension, capturing the individual's perception that she exercises control over the interaction with the technology; (2) an attention focus, where the individual's attention is limited to the narrow stimulus represented by the technology; (3) a curiosity dimension, suggesting that during a flow experience, there is a heightened arousal of sensory and cognitive curiosity; and (4) an intrinsic interest dimension, implying that the individual's interaction with the technology extends beyond mere instrumentality to be pleasurable and enjoyable as an end in itself."

Ghani and Deshpande (1994) characterize flow as (1) total concentration in an activity and (2) the enjoyment one derives from an activity resulting from perceived control and challenge. Oinas-Kukkonen (2000) adds the fluency of web navigation to the construct of flow. Csikszentmihalvi (1990) describes flow as "the state in which people are so involved in an activity that nothing else seems to matter." The antecedents and consequences of flow have since been further researched and theorized. However, the recent review of flow studies by Hoffman and Novak (2009), which also includes novel flow-related concepts such as cognitive absorption (Agarwal and Karahanna 2000), states that the concept still "remains murky" due to the complex and broad set of existing conceptualizations and causalities between the concepts. Nevertheless, flow has been found to have a direct positive effect on purchase/behavioral intention (Agarwal and Karahanna 2000, Hsu and Lu 2003, Luna et al. 2002, Sanchez-Franco 2006) and indirectly via positive subjective experience and attitude (Hsu and Lu 2003, Korzaan 2003, Sanchez-Franco 2006). Thus, it is an important construct to understand the context of selling (Oinas-Kukkonen 2000).

Research has examined the impact of flow on online sales interactions. Wang et al. (2007) found support for the hypothesis that the different dimensions of flow can be increased through the socialness of the website. Support has also been found for computer playfulness to increase both flow and immersion with technology (Agarwal and Karahanna 2000) and that recommender agent playfulness and extraversion (through voice, text and animation) increase social presence and trust in the agent (Hess et al. 2009). Based on previous flow research, our understanding of the impact of immersion, the change of the spatio-temporal and digitalization on the interaction and psychology of persuasion in e-selling remains weak.

The role of total concentration, *immersion*, has been important in virtual reality (VR) developments and game research (Brown and Cairns 2004, Huang et al. 2010). Thus, the research on immersion into VR technology and the design of persuasive elements within VR is perhaps best poised to inform e-selling about the impacts of digitalized immersion on the ability to persuade. From this research perspective and close to flow, Paul (2008) has defined immersion as a state of consciousness where the physical self is diminished or lost by being surrounded in an artificial environment. Human immersion into digital technology may well utilize but it does not necessarily need 3D, virtual reality or artificial intelligence, but it can and it has occurred in much simpler means and environments for multiple decades, for example in simple console games.

The use of persuasive technology in immersive environments is fast increasing (Fogg 2008, 2009; Oinas-Kukkonen and Harjumaa 2008b, 2009). In healthcare, the combination of persuasive technologies, interactivity and human immersion has enjoyed fast development (cf. Beard et al. 2009, Fox and Bailenson 2009, Maheshwari et al. 2008, Räisänen et al. 2008). The combination of immersion and persuasion has advanced the furthest in game design, where immersion can be separated into the categories of tactical, strategic, narrative, spatial, cognitive, sensory, psychologP. Parvinen et al./Electronic Commerce Research and Applications 14 (2015) 214-221

Table 1
Translating technology-initiated human immersion typologies to e-selling

Types of human immersion	Exemplary translations to e-selling
Tactical immersion	Considering online communities and interactions as an arena, where personal navigation and communication skills will lead to success in the form of fans, wins, orders and sales
Strategic immersion	Envisioning potential buyer–seller argumentation patterns and building intelligent, reactive algorithms to respond to buyer behaviors
Narrative immersion	Building a company story for online interaction and involving customers in this 'virtual narrative'
Spatial, cognitive and sensory immersion	Building a simulation of the seller and buyers, their companies, their exchanges and outcomes thereby demonstrating value creation possibilities or justifying value-based pricing models
Psychological and emotional immersion	Transferring the characteristics of one's own self into an avatar, creating a virtual personality that buyers sympathize enough with to permit engagement

ical and emotional (Adams 2004, Bjork and Holopainen 2004). All of these have different repercussions for persuasion.

Tactical immersion refers to performing tactile operations that involve skill so that individuals feel 'in the zone' while perfecting actions that result in success. *Strategic immersion* is more cerebral, and is associated with mental challenge of "envisioning the whole" and coping with different permutations of alternative outcomes following a choice of actions, such as chess players experience strategic immersion when choosing a move among a broad array of possibilities. *Narrative immersion* occurs when individuals become invested in a story, and is similar to what is experienced while reading a book or watching a movie.

Spatial, cognitive and sensory immersions represent different emphases of an individual feeling the simulated world is perceptually convincing. The individual feels that he or she is really "there" and that a simulated world looks and feels "real." Sensory refers particularly to three-dimensional environment, and being intellectually stimulated by it, for example, the player experiences a unity of time and space as the player fuses with the image medium, which affects impression and awareness. Finally, *psychological and emotional immersions* occur when individuals start having online feelings (cf. Preece 1999), often provoking thoughts and discussions over the boundaries of virtual and real life (cf. Oinas-Kukkonen and Oinas-Kukkonen 2013).

Table 1 outlines concepts adapted from technology-initiated immersion (Adams 2004, Bjork and Holopainen 2004), and translates them into e-selling oriented human immersion situations.

3.1. Degrees of immersion

If the conditions of e-selling (human interactivity, intentionality, persuasion, value creation and closing) are fulfilled, human immersion will become a key factor in understanding how and whether e-selling works. Three aspects of immersion that link it to e-selling interaction can be identified. These aspects operate on different continuums coined here "degrees of immersion." Eselling immersion can be assessed based on (1) the degree of customer *detachment* from the real world, (2) the degree of *re-creation* of realism online and (3) the degree of *personification* of buyers, sellers and other relevant actors.

- Detachment from the real world can be seen to operate through the notion of the suspension of disbelief, the willingness of the audience (customers) to overlook the limitations of a medium and tacitly agree to provisionally suspend their judgment in exchange for, classically, entertainment (Csikszentmihalyi 1990). The review produces a general observation that in e-selling, the higher the degree of immersion, the more sensitive sellers must be not to break the suspension related to the immersion.
- The degree of re-creation of realism refers to the extent or completeness of attempting to build a reality, current or alternate (cf. Hoffman and Novak 1996). The degree re-creation of realism

can be understood as the extent to which the online e-selling experience attempts to create a lifelike setting in terms of the psycho-physical and the spatio-temporal (Paul 2008). This creation can resemble either real-life, a vision of a realistic future or an entirely fantasy-based environment.

• The degree of personification refers to how well the e-selling immersion establishes the personification of the parties interacting. It is worth noting that the degree of personification can also be assessed in physical face-to-face selling. For example frequently changing key account managers or very impersonal sales activities (e.g., seminars instead one-to-ones) can make face-to-face selling not very personified experience. In robotics, research on the acceptance of non-human agents has observed a U-shaped relationship, that is, agents need to be personified either very realistically or very simplistic to be accepted by humans (Mori 1970).

It is important to notice that an overwhelming majority of reallife examples of e-selling incorporate all of these dimensions of immersion and they do so to a large degree. E-selling attempts through music communities, for example, involve detachment from reality, the construction of an alternate reality and personification. The different degrees of immersion are, however, different from the perspective of value creation, which was earlier defined as a cornerstone of e-selling. To understand the relationship between the degrees of immersion and value-creation, the relevant types of value creation first need to be identified. The online and offline sales influence psychologies are economic value drivers, especially: value-in-use (Sears and Jacko 2007), lower search cost (Bakos 1997), lower transaction costs (Chircu and Mahajan 2006), lower net risk (Eggert 2006), trust substituting for imperfect information (Goel and Prokopee 2009, Komiak and Benbasat 2008, Komiak et al. 2005, Paylou and Dimoka 2006), providing enchantment (Sivaramakrishnan et al. 2007, Babin et al. 1994, Korczynski 2005), fun and pleasure (McGonigal 2008), and social presence.

Table 2 demonstrates the relevance of associating the different degrees of immersion with the different drivers of value creation related in sales interactions. It also generally shows the high but varying relevance of the different combinations of value drivers and immersion degrees. These very early observations establish a potential spawning bed for building conceptual models, propositions and hypotheses about the relationships between the degrees of immersion and value in e-selling.

From the perspective of a practical e-selling operation, it is important to understand the different combinations of value-creation and immersion logics involved. The same context can involve many different combinations of immersion and value-creation. For example, very popular massively multiplayer online role-playing game World of Warcraft and the alternative human reality second life have a different type of detachment. Generally, the former has very high detachment, high recreation of realism and high buyer but generally low seller personalization. In Second Life, detachment varies (and is not exactly known) but can be fairly low,

Table	2
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Coupling degrees of immersion with value drivers in e-selling.

Value drivers	Degree of detachment (from current realism)	Degree to which realism is recreated	Degree of personification
Offering uniquely tailored value or value-in- use (Sears and Jacko 2007)	Relevant due to immaturity of offerings in high-detached settings	Not relevant	Very relevant for creating entirely new value for alter egos
1997)	perception that detachment is particularly associated with high time investment	longer set-up time) from the cognitive complexity of alternative realisms	ability for buyers and sellers to identify with each other "as people"
Lower transaction costs (less negotiation, hesitation, tacit understanding) (Chircu and Mahajan 2006)	Relevant due to preference to keep detachment simple	Relevant due to ability of tailoring degree of recreation to optimize and balance detail vs. haggling	Somewhat relevant but mostly through higher interpersonal trust
Lower net risk (Eggert 2006)	Relevant as detachment decreases risk aversion	Relevant as accurate recreations reduce the sense of uncertainty due to incompleteness and unfamiliarity	Somewhat relevant but mostly through higher interpersonal trust
Trust substituting for incomplete information (Pavlou and Dimoka 2006, Goel and Prokopee 2009, Komiak and Benbasat 2008, Komiak et al. 2005)	Not relevant	Somewhat relevant due to people's increasing tendency to attribute trust to sites and places	Very relevant as persona is a central factor in trust
Providing enchantment (Sivaramakrishnan et al. 2007, Babin et al. 1994, Korczynski 2005)	Very relevant as detachment liberates from existing inhibitions and social constructions that hold back enchantment	Very relevant based on observed enchantment with (e.g., beauty of virtual) places	Very relevant due to increased possibility for human-like enchantment
Fun and pleasure (McGonigal 2008)	Relevant, but the relationship between detachment and fun is often self-evident (although not necessarily linear)	Somewhat relevant directly through curiosity, but mostly through detachment and associations to offline	Very relevant due to basic human psychology
Social presence, "being there" and human touch (Sivaramakrishnan et al. 2007)	Potentially relevant in the future, little apparent need yet	Somewhat relevant with recreation of proximity	Relevant through identity of human touch, but not always necessary

whereas recreation of realism and personification are extremely high. The future of selling looks very different under these two logics. Linden Lab that runs Second Life is well poised to embed human-run and artificial avatars for selling things online, whereas World of Warcraft is unlikely to even establish a monetization system which would motivate players and game-run "commercial" functions are likely to continue to be run in auctions and similar impersonal mechanisms using limited sales psychology.

The question of whether customers prefer trusting humans or computers (cf. Komiak et al. 2005) presents a puzzling example of how to apply immersion degrees and value logics. It is now widely considered that if people prefer asking computers over humans, at least hedonistic consumers who are low-personified and in low-detached settings prefer asking human-looking personified computer assistants such as IKEA's Anna and Coca-Cola's Hank. Thus current research has concentrated at studying effectiveness in such situations (Wang and Benbasat 2007; Komiak et al. 2005). But what happens to e-selling if buyers prefer to be detached, personified or operate in a radically recreated realism? In fantasy games such as World of Warcraft, players of high status who show up to a hoard gathering that turns out to have quasieconomic interests (e.g., avatar trading) can feel extremely insulted. This exemplifies the peculiar influence that immersion has on basic psychology and cognition of e-selling processes, such as psychological contract violation (cf. Pavlou and Gefen 2005).

Finally, the relationship of the degrees of immersion and logic of value creation do not have a simple relationship to the question of whether the e-selling interaction influences human behavior directly or indirectly through a mediating role (Oinas-Kukkonen and Harjumaa 2008a). Out of the interactive sales influence psychologies, at least trust operates differently in agent-mediated electronic commerce, web-mediated electronic commerce and traditional commerce (Komiak and Benbasat 2004).

It is important to note that this research does not suggest that mediation or low degrees of immersion are somehow inferior. In many ways, mediating immersion is much further in development, with existing physical-life selling methods and sales influence psychologies having been copied to facilitate human-to-human interaction digitally. These include the amplification of the persuasive cues by transforming the patterns of social interaction by digital means (Licklider 1968, Bailenson and Yee 2005), providing shared digital feedback on interaction (DiMicco et al. 2008), or restructuring communication processes (Winograd and Flores 1986). As Shackel (2009) mentions, "there are still many human factors and organizational aspects yet to be solved to improve the human-computer interaction for all computer-mediated communication." This also is reflected in the developmental stages of the different degrees of immersion.

4. Future research

The conceptualization of e-selling through human immersion entails drawing together perspectives from human-technology interaction, persuasive technology, human immersion and sales influence psychology. These disciplines ca adhere to a relatively similar realist research tradition and ontology (cf. Kuhn 1970, Okasha 2002). Nevertheless, the different theoretical emphases still leave it difficult to relate e-selling as a concept, back to all the disciplines the conceptualizations derive from.

4.1. Combining degrees of immersion, sales psychologies and value drivers is a major challenge

A highly challenging future avenue for e-selling consists of attempts to discover suitable combinations of different degrees of immersion and value creation mechanism. Experimenting, researching and applying these combinations to practice, particularly in non-game environments, will be exciting but demanding. Current e-selling applications, in research and practice, are shallow. They either operate only with trivial implementations of sales influence psychologies or the focus is on being generally persuasive while detached from reality. Furthermore, current e-selling usually deals with one value driver only (typically cheaper, more fun or more social).

From the perspective of e-selling success, a combination might work best. Depending on the context, this combination can either be very simple – simplicity is generally known for its power in behavioral change (Fogg 2009) – or very complex, for example, several psychologies catering for escapists and social proximity junkies in an absurd virtual world setting with highly personified seller avatars. Whether simple or complex, the permutation of possibilities makes the design of experimentations and applications complicated. The thought process in designing applications, however, is very important as it reduces trial and error. Arguably, concerted research efforts are still needed before practical applications may be expected to provide any true pay-off. One of the biggest and most necessary pushes is to investigate e-selling for different types of products and services, and particularly search vs. experience offerings.

Another relevant distinction is between hedonic versus utilitarian customer behaviors (Childers et al. 2001; Babin et al. 1994; Voss et al. 2003, van der Heijden 2004). Albeit e-commerce has hitherto been geared towards utilitarian buying, immersion holds promise for extending the reach of e-selling with hedonistic value drivers (cf. Wang et al. 2007). Combining and managing multiple value drivers, sales influence psychologies and of degrees immersion should also make people willing to pay for the buying, not only for the bought.

4.2. Incremental e-selling development

Commercial single company-centric development is set to drive the incremental development of technology, psychological mechanisms in e-selling and their relationships to companies' business models. The commercialization frontier lies now with launching the first administrator-run e-selling concepts in existing virtual worlds, and creating virtual, interactive negotiation and shopping environments beyond recommender applications for industries others than gaming (cf. Schlosser et al. 2011, VanBoskirk 2011, Xiao and Benbasat 2009). At the technology-mediated human-tohuman front, converting online customer service to serve selling is a major concern.

This article has pointed out three new issues for this emerging line of development. First, businesses should, as a single issue, determine whether they have understood immersion right. The logic of interaction needs to fit the characteristics of the immersive environment: the degrees of immersion can be managed by building new environments, simplifying existing ones, and they should be build by adding, by choice, either realism or surrealism as well as personification. Second, technologies and applications implementing different sales psychologies should always be built to fit and respect the current (and future aspired) degrees immersion; the efficacy of sales influence psychologies will be moderated by the degrees of immersion. Finally, applications need to be particularly careful about keeping sales true to its value-adding logic. For example, there is a fine line between bona fide removing of customer hesitation and pushing over the cliff. Businesses need to determine when fast is better for both the seller and the buyer. Immersion adds an extra element of sensitivity to this decisionmaking, as the perception of time under flow is altered (Csikszentmihalvi 1990).

4.3. Ethics of e-selling

Optimizing value creation from the company perspective leads to a wider ethical discussion. Ethics has long had its place in information systems research (Bull 2009) and despite trust being a central tenet of electronic commerce research (Benbasat and Wang 2005, Benbasat et al. 2010, Gefen and Straub 2004, Tan and Thoen 2000), research into the ethics of interactive e-selling are relatively untouched (cf. Adam et al. 2008, Kracher and Corritore 2009, Peace et al. 2002). This research highlights that particularly because e-selling is still in its infancy, there is serious reason for concern over ethical issues.

The example of removing hesitation (when is it justified, who knows best?) by using influence psychologies that make buying easier, simpler, faster and more attractive is relevant. Time pressure, framing alternatives and appealing to emotions (cf. Bonney and Williams 2009) have ethical concerns. Invasion of privacy is topical (Kwon and Lennon 2009), given the pro- and interactive nature of e-selling (cf. Deighton and Kornfeld 2009, Schlosser et al. 2011). From the sellers' perspective, competitive dynamics also represent a major researchable concern: When does competition justify a "tougher," less value-adding customer orientation? The role of value creation (versus the value transfer orientation epitomized in emphasis on aggressive "closing") represents a significant research gap in e-selling research. The many value creation issues identified in this article could provide a fruitful avenue for understanding how the e-selling could maintain a higher ethical profile and avoid sliding into the kind of value transfer-oriented selling visible in the history in offline saleswork (Ivey 1937, Lewis 1952, Nixon 1942, Walters 1948). Luckily, the ethical concerns could be alleviated by increased transparency in the contemporary web. Electronic word-of-mouth has ensured faster diffusion of information about unethical e-selling practices and vendors, and increased accountability.

4.4. Institutions of e-selling are in a formative phase

The web has promoted democratized trade between consumer buyers and sellers without brokers in between (Oinas-Kukkonen and Oinas-Kukkonen 2013). As the network society progresses, one of the next realms to establish its formative economic institutions is e-selling. Technology, user capabilities and general technology acceptance are macro-level trends that favor the emergence of more immersive e-selling in the next few years (VanBoskirk 2011). Institutions governing e-selling are only emerging. For example, the first European e-commerce directive and legislations on contracting and competition is being gradually implemented since its formation in 2010. More research thus needs to be devoted to address these issues.

This research has pointed out that the formative phase of e-selling is currently taking place. Human immersion will likely be increasingly important to determine what kind of technologies, practices, rules, norms, laws, standards, applications and uses of e-selling will emerge. Also the ethics are institutionalizing, for example, the extent to which value-creation is a prerequisite for e-selling. Whether e-selling interactions are considered intrusive nuisances or a value-creating opportunities will be determined by early adopters. Whether pioneering e-selling examples will emerge outside gaming and gambling, for instance, is essential.

Undoubtedly, there are likely to be differences between industries, but as institutional entrepreneurship literature suggests (Garud et al. 2002, Maguire et al. 2004), industry organizations, companies and even single individuals have the ability to influence institutions under construction. A healthy balance between the supplier and the buyer side can be assumed to foster progress. On the buyer side, new forms of digitalized human interaction in communities have immense formative power as constant market processes maintain a cycle of spontaneous reordering (Castells 2000). Another example of spontaneous buyer side reordering are the global consumer tastes within the game industry that have turned somewhat completely around within a short period of time: from video-game like desktop gaming to platform-mediated tournaments to flash-based applications to social worlds and now to their many hybrids. Companies are struggling to keep up and stay in business.

5. Final remarks

E-selling is poised to change the daily work of millions of people within the next decade (VanBoskirk 2011). Regardless of what the paths of institutionalization, industrial transformation and technological development will be, observing the flow and immersion based human selling in technology will be an enormously exciting social phenomenon. This should motivate policy-makers, businesses, industry organizations and researchers alike. In the emergent field of e-selling, practical development and research can work closely together.

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