Virtual Reality User Acceptance

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INTRODUCTION

"Nothing can be loved or hated unless it is first known" (da Vinci, quoted by Powell, 2004, p.1). As human beings, we are always afraid about the unknown, about what is not familiar. Even though this is acceptable because of the fear of changing the way humans have been living so far, it is not justifiable.

Some people have the illusion of still being rooted in the community in which they grew up (Nimon, 2003). But the truth is that our world is changing and humans are moving on with it, as happens with technology. Humans are being prompted by it.

The organization of this article is as follows. The background supports the idea of this topic. This is followed by some concepts, characteristics and theories of the research methodology. Then I suggest a direction for the future, ending with the conclusion.

BACKGROUND

Since the early 1990s, the world's use of communication technologies to extend the activities of working lives and personal contacts beyond physical location has reached a level of effectiveness that multiples the number of communities of which humans are genuinely part (Nimon, 2003). These communities are not only set in a real environment but in a virtual one, depending on location in time and space. It is a challenge of daily life to learn how to break the barriers between these two worlds, which happen to be the same one. Nimon (2003) argues how much more it is the reality of humans' lives when the communities to which we belong to are multiple and some of them virtual.

Leonardo da Vinci was a man well beyond his time. Born April 15, 1452, da Vinci had the ability to live in different communities. He was a painter, architect, engineer, mathematician, philosopher and inventor; a genius the world has never again seen so far (Kausal, 1997-2003). Da Vinci had his mind set in a level beyond his actual reality, without any fear of being mistaken. He used to think, "experience does not err; only your judgments err by expecting from it what is not in its power" (as quoted by Powell, 2004, p. 1).

With this mentality, da Vinci created a typological prototype for the beginning of the sixteenth century, which constituted a link toward the Nordic versions of the Renaissance (Salvat, 1979). Likewise, virtual reality is creating a typological prototype for the twenty-first century, where the Internet revolution has led to the proliferation of virtual communities worldwide (Fernback & Thompson, 1995).

"History, the stories of the past as told in any given community, had previously functioned to make sense of the present" (Nimon, 2003, p. 5). It is not easy to learn how to live and think for different communities nor for a virtual one, but at least we can try.

THE VIRTUAL REALITY AND DA VINCI'S REALITY

"Is the electronic culture revolutionary, transformational, dazzling, and will it change our lives? Is it the Next Big Thing? Or is it just the Emperor's New Clothes? The answer seems to be that the Internet is a chaotic, important, twisting, tiresome fake, not-very-satisfying, brilliant, fascinating, even exhausting medium" (Schmidt, 1998, p. 343).

As Schmidt says, it seems that many people think that way about the media era, and that is because people are not making an effort to understand it. "The noblest pleasure is the joy of understanding" (da Vinci, as quoted by Powell, 2004, p. 1). To achieve this, humans have to create meaningful connections among people, ideas, art and technology, shaping the way people understand their relationships with the new products of digital media (Kuchinskas, 1998).

Virtual communities are a new form of communication whereby people who constitute a community share information and knowledge for mutual learning or problem solving (Lechner & Hummel, 2002). Researchers on virtual communities agree that cyberspace is the default or mandatory space in which the members of a virtual community interact. Members of some virtual communities, however, engage in off-line as well as online interactions (Koh & Kim, 2003-2004). This phenomenon is most apparent in virtual communities that originated in an off-line context.

From a series of definitions from different authors about a virtual community (Table 1), Koh and Kim (2003-

Table 1. Virtual community definitions (Koh & Kim, 2003-2004)

Fernback and Thompson, 1995	A set of social relationships forged in cyberspace through repeated contacts within a specified boundary.
Balasubramanian and Mahajan, 2001	Any entity that exhibits the characteristics of an aggregation of people, rational members, interaction in cyberspace without physical collocation, a process of social exchange, and an objective or interest shared by members.
Preece, 2001	A virtual community has four components: people, a shared purpose, policies and computer systems.

2004) defined it as "a group of people with common interests or goals, interacting predominantly in cyberspace" (p. 76).

On individual and group levels, an understanding of the dynamics of virtual communities can facilitate virtual collaboration among organization members and has the potential to transform the activities of off-line, inter-organizational context (Wenger & Synder, 2000). These next few paragraphs provide the characteristics of a virtual community and explain the adoption of these communities, along with some theories.

Virtual community characteristics like anonymity, addictive behavior and voluntary behavior may imply a state of immersion (absorption) or flow experience, as Csikszentmihalyi (1975) noted (Koh & Kim, 2003-2004). Three virtual community characteristics were identified as meaningful antecedents: leaders' enthusiasm (helps members feel that the virtual community is activated), off-line activities (complement the low social presence inherent in most computer-mediated environments) and enjoyability (playfulness derived from the community's content, pleasure, satisfaction and interactions with other members) (Koh & Kim, 2003-2004).

Figallo (1998) argued that leader involvement is essential to the building of community membership (Koh & Kim, 2003-2004). According to social presence theory, the presence of other members' off-line activities may influence sense of virtual community. Through off-line activities, virtual community members are able to understand, trust and identify other members more easily. Enjoyability is a useful construct to understand individuals' positive evaluation and affection of virtual communities; it also affects flow-immersion by human-machine interaction (Koh & Kim, 2003-2004). Moon and Kim found that playfulness is a critical factor that reflects the user's intrinsic acceptance of the World Wide Web (Moon & Kim, 2001). Web user information is a valued commodity that provides business organizations with a means to more effectively target and segment its market (Turner & Dasgupta, 2003).

As shown in Table 2, for each characteristic of the virtual community, a sense of virtual community is adopted (Koh & Kim, 2003-2004).

Information technology adoption has been considered within the areas of information technology planning, diffusion and implementation (Dasgupta, Agarwal, Ioannidis & Gopalakrishnan, 1999). Cooper and Zmud (Dasgupta et al., 1999) used a stage model of information technology implementation that involved five stages: initiation, adoption, acceptance, routinization and infusion (p. 31).

Research in information technology adoption has suggested that individual factors like leadership; organizational factors such as size, centralization, specialization; and contextual factors like competition and external environment variables are predictors of information-technology adoption. (Dasgupta et al., 1999, p. 32)

Information-technology adoption can be studied at two levels: The first is at the organizational level and the other is at the individual level. If the unit of analysis is an individual, the emphasis is on the acceptance of the technology (Dasgupta, Granger, & McGarry, 2002). With this fact, Davis (1989) proposed the Technology Acceptance Model (TAM), which explains acceptance of information technology. Da Vinci stated once that, "simplicity is the ultimate form of sophistication" (quoted by Johnson, 2003-2004). TAM states now that an individual's adoption of information technology is dependent on perceived ease of use and perceived usefulness of the technology (Dasgupta et al., 2002). The easier information technology is, the better the communities will understand and adopt it (Chart 1), and will reach the maximum perfection of a virtual reality.

Table. 2. Virtual community characteristics (Koh & Kim, 2003-2004)

Characteristics	**Sense of Virtual Community**
Leaders' enthusiasm	Membership
Offline activities	Influence
Enjoyability	Immersion