Defining Presence

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Abstract

This poster presents a framework to examine divergent and overlapping definitions of presence and promote a standardized terminology for discussing presence phenomena; conference attendees are invited to assist in refining the framework by placing their favored definition(s) within it. The benefits and dangers of the endeavor are discussed, followed by an overview of the framework, and recommendations for its use.

1. Introduction

In the last half century, and especially during and since the 1990s, many scholars have advanced a wide variety of unidimensional and multidimensional conceptualizations, and corresponding terminology, for presence. While individually useful, many of the definitions overlap and contradict one another. And while it's a sign of the growing sophistication in presence scholarship, the identification of many new dimensions of presence has led to a glut of composite terms (e.g., spatial, social, mediated, virtual, immersive, perceived, objective, subjective, environmental, inverse, backward, forward, physical, and corporeal presence). As Waterworth and Waterworth [1] note, "Presence is still a vague concept; researchers in the area agree that there is something important conveyed by the term, but differ widely on exactly what that something is" (Conclusions).

In this poster we present a framework for untangling the many conceptualizations of presence. The diversity of definitions is the result of necessary conceptual 'brainstorming,' but if scholars are to constructively collaborate and ultimately better understand presence, we need a common framework and terminology.

2. Benefits and dangers

To build knowledge, researchers and theorists must have a common understanding of the meanings of the words they use. White, Maltais, and Nebert [2] note that "It is essential to the process of communication that all individuals and groups concerned either use the same term for a particular object or concept, or at least have the ability to translate between different terms," and Heilbron [3], echoing Francis Bacon [4], observes that "Among the obstacles to the steady advance of science are the words invented to denote its conquests" (p. 585). Adopting a common framework for definitions and

terminology of presence will allow us to communicate and collaborate more effectively, compare theoretical propositions and empirical results within and across disciplines, and ultimately build knowledge in this area. The availability of common and generally accepted definitions means that scholars don't have to continually construct new definitions that are similar to those already in use. Although they don't insure more consistent and comparable measurements of presence, standardized definitions are a prerequisite for standardized measurements. And such a framework would eventually allow us to more accurately characterize acquired knowledge about presence phenomena via meta-analysis.

Despite the need for such a framework, there are reasons to be cautious. An inflexible, prescribed set of definitions and labels could constrain creativity and limit the development of innovative approaches and therefore academic progress. What is needed is a categorization of the important definitional work that has been done in a format that won't restrict, and will even encourage, the evolution of that work in the future.

3. A framework for presence definitions

In the poster we present a framework that organizes most scholarly definitions of presence and variants of presence in the literatures of diverse disciplines. A more detailed version can be found online [5]. The framework is designed to characterize and organize existing definitions and guide the evolution of current, and the development of new, conceptualizations.

The left-most column contains questions that organize the definitions based on their fundamental characteristics. The definitions at the top of the figure are the most general or broad, and those at the bottom are the most specific or narrow. The organizing questions are discussed below.

2.1. Is technology involved in the phenomenon?

The first and most basic distinction among definitions of presence concerns the issue of technology. Some definitions focus on objective properties of communication that explicitly exclude technology. Other definitions explicitly involve the use of technology, "a machine, device, or other application of human industrial arts including television, radio, film, the telephone, computers, virtual reality, and simulation rides; traditional print media such as newspapers, books, and magazines; and traditional arts such as painting and sculpture" [6]. And some definitions can apply in either context, when technology is involved or not.

2.2. What is the phenomenon a property of?

A second key distinction concerns whether the phenomenon being defined is an objective property of a mode of communication, person, object or entity, or a subjective property of a person.

2.3. What is the source of the stimuli?

For those definitions of presence that involve a subjective property of an individual, the source of the experience or perception can be external – i.e., outside the body, in the 'real' world, or it can be internal – i.e., inside the body (specifically the brain). External sources are basically all impingements on our senses from the physical world around us, while internal sources are controlled or automatic mental processes that result in remembering a vivid experience, dreaming, daydreaming, and the like.

Some definitions explicitly or implicitly apply only to our experiences of the external world (via technology or not), while other definitions are more inclusive, with either external or internal stimuli generating presence.

2.4. How is technology perceived?

The fourth distinction in presence definitions concerns the perception of technology in an experience. There are four logical possibilities: When technology is not involved in an experience, as in "face to face, body to body" communication [7], the fact that technology plays no role in the experience can be either accurately or inaccurately perceived, and when technology is involved, as when a person uses virtual reality or other media, the role of technology in the experience can be either accurately or inaccurately perceived.

The two most common types of definitions describe the accurate perception that there is no technology involved, and the inaccurate perception that technology is not involved when in fact it is (e.g., "the perceptual illusion of nonmediation" [8]. In the first of these scenarios, a 'natural' or 'direct' or 'non-technology-based' experience is accurately perceived as such, and in the second, a person automatically or willfully overlooks the 'artificial' or 'indirect' or 'technology-based' nature of an experience created or modified by technology.

2.5. What aspect of the phenomenon is of interest?

The fifth and last distinction among presence definitions in the framework concerns the different aspects of the phenomenon. These definitions typically denote distinct but overlapping dimensions or types of presence, including spatial or environmental presence, social presence, psychological engagement, perceptual and social realism, cultural presence and para (or logically impossible) presence.

3. Recommendations

For presence scholarship to advance, those who study it need to all be "on the same page." Because there are so many different definitions, and because it's often not clear which definition scholars have in mind, "when people talk about *presence* they are often not talking about the same underlying concept at all" [9].

Rather than attempting to build consensus around a single, ideal definition of presence, we urge scholars to make very explicit the definition(s) that they are using in their work. A logical way to do this is to answer for readers and listeners the five key questions that organize the framework presented here (i.e., locate the definition in the framework of definitions). We invite conference attendees and online visitors [5] to help refine the framework by doing this. Our collective work will also advance more quickly if we use existing terms and definitions whenever possible. We'll update the online framework [5] as our collective understanding of presence evolves.

References

[1]   Waterworth, J. A. & Waterworth, E. L. (2003, July). The core of presence: Presence as perceptual illusion. *Presence-Connect, 3*. Retrieved on February 15, 2005 from http://presence-connect.com

[2]   White, J. A., Maltais, L. J., & Nebert, D. W. (1998). An increasingly urgent need for standardized gene nomenclature. *Nature Genetics*. Retrieved on January 2, 2006 from http://www.nature.com/ng/web_specials/nomen/nomen_article.html via Google Scholar.

[3]   Heilbron, J. L. (2002). Coming to terms: Caloric, cathode, curium and quark — coinage from the mint of science. *Nature, 415*, p. 585.

[4]   Bacon, F. (1889/1620). *Novum Organum.* (T. Fowler, Trans.) Oxford, UK: The Clarendon Press.

[5]   Lombard, M. & Jones, M. T. (2006). Defining presence: A framework. Temple University. Available: http://astro.temple.edu/~lombard/presence_definitions.html

[6]   International Society for Presence Research (2000). An explication of presence. Retrieved on January 13, 2006 from http://ispr.info

[7]   Zhao, S. Y. (2003). Toward a taxonomy of copresence. *Presence: Teleoperators and Virtual Environments, 12*(5), 445-455.

[8]   Lombard, M., & Ditton, T.B. (1997). At the heart of it all: The concept of presence. *Journal of Computer-Mediated Communication*, 3(2). Retrieved on February 15, 2005 from http://jcmc.indiana.edu/vol3/issue2/lombard.html

[9]   Slater, M. (2003, January). A note on presence terminology. *Presence-Connect, 3*. Retrieved on February 15, 2005 from http://presence-connect.com