

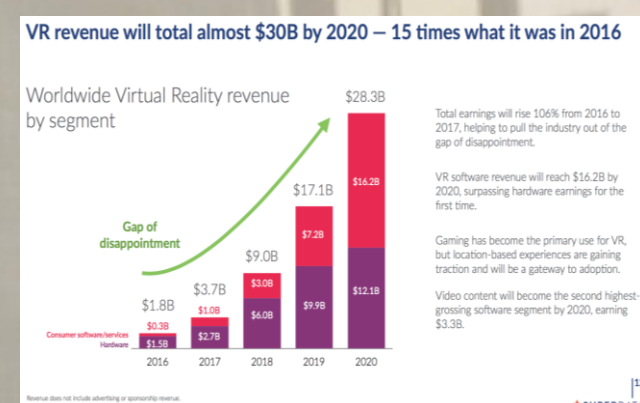
Reinventing sensory experiences: the challenge of creating virtual realities

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Contextualization

In 2016, the virtual reality (VR) market was democratized to a greater extent than ever before due to technologies produced by large companies such as Facebook, Google, Vive, and Sony, who created VR helmets for the general public. From that point forward, widespread access to these systems allowed the general population to increasingly invest time and money in the experience of VR.

Use of VR technologies raises many questions about creators and users' understandings of virtual universes, but also about the sensory experience creators try created as compared to the one experienced.



Theory

- **The phenomenology of the senses:** the study of daily experience through the senses and the body (Desjarlais et Throop 2011, Valinnini et al. 2011)
- **Cyborg/technological bodies:** the examination of the interactions between technology and the human body and our understanding of the latter (Haraway 1994, Shilling 2005).
- **Digital anthropology:** the analysis of social issues directly related to new technologies such as virtual reality and artificial intelligence (Boelstroff, Nardi, Pearce, 2012).

Methodology

- 24 interviews (12 with VR content creators, 12 with VR users).
- 10 days of observation at the offices of TREBUCHET and APERIUM in Montreal.
- The anthropological of work, which seeks to study all dimensions related to human work (Forsythe 1999), and digital anthropology.

Discussion

The understanding of the body and the senses evolves with technology. Although virtual content creators understand certain aspects of how the human body and senses work, many additional individual and external factors influence users' sensory experiences (Barfield and William 2017). The process of producing and transmitting a sensory experience is limited by technology and the many factors that affect sensory experiences. As a result, creators of virtual universes are unable to provide the ultimate experience they would like to be able to transmit. The sensory stimulation they create is often misunderstood, or even ignored, by the user. Each immersive experience is subjective, and the mobilization of the senses resists normalization.

Research Question

How do creators of VR games attempt to manipulate players' senses to create an immersive sensory experience within the VR universe?

Prison Boss VR

Game produced by the company TREBUCHET:

- The objective is to escape from your cell by manufacturing illicit equipment.
- The guards circulate between the cells to surveil prisoners.



Results

- Hearing and proprioception were the senses most significant to the immersive experience according to users.
- 50% of users experienced immersive sensory experience as expected by the creators.
- 30% of users did not understand the objectives targeted within the game, as well as what they were supposed to "feel", at a sensory level, according to the creators of the PRISON BOSS VR universe.

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