Experience (Re)Design Techniques using Innovative Mobile Assistive Technologies and Creative Context Engineering

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The dominant perceptive regimen is still based on the Cartesian split (subject-object separation). We see matter as separated from mind, a perceptive model inherited from literacy-Cartesian culture that has not yet digested the new changes brought about by hybrid techniques and methodologies. This dominance is also reflected in the way we deal with the consensus construction of reality alongside our definitions of what consciousness is and can be.

The eye now adjusts so readily to the effects of linear perspective that it is considered to be an innate process. The evolution of our perception alongside our architectural understanding is dictated by spatial conventions that have been built into our cultural constructs since the Renaissance. (Panofsky 1924) in his book 'Perspective as a Symbolic Form' established a parallel between the history of spatial representation and the evolution of abstract thought.

Vision and optical experts (Radley 2013) note that it is rather curvilinear perspective that has a strong foundation in reality as the human visual field has a natural curvilinear shape. As a result abstract reasoning which is developed through the use of media tools and media content that are constructed using earlier conventions can now be augmented with other more 'realistic' forms of spatial construction.

Likewise when the digital blends with the physical, in particular in relation to spatial perception, a hybrid reality appears and the wide and varied impact on consciousness now requires mapping.

This paper will examine the role that hybrid space plays in the construction and transformation of consciousness through the practise of context engineering. Context engineering is understood as an intermediality practise for exploring perceptual augmentation by giving us control over our senses, allowing us to adjust them in real time.

Firstly I will focus on how hybrid space creates an opportunity to perform context engineering (Smith, 2013) by maximising our spatial interaction with the environment, going beyond the traditional emphasis on surface, content and representation (Ascott, 2002). Secondly, I will analyse how the design and implementation of hybrid spaces can transform consciousness.

The analysis will be carried out through a number of case studies investigating field of view (FOV) technologies and new forms of macroscopic navigation. The FlyVIZ headset augments the sense of sight by giving the user 360-degree vision. The 360 view is compressed to fit into a human's usual 180 degree field of view, it takes fifteen minutes for the brain to adjust to this new way of seeing and 'accept it as normal' (Ardouin et al, 2012). The ability within one field of view, to be both in the world and to see yourself in it, the power of looking through, and occupying, your own field of vision (Webb, 2009) is becoming a hybrid tool for consciousness adaptation.

The results of this analysis will then be synthesised in a comprehensive overview of the possible new ways in which perception and consciousness can be transformed through the process of context engineering. The impacts on art and learning science will be highlighted.

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