

Realising Virtual Reality: A Reflection on the Continuing Evolution of New Media

Allan McLay, RMIT University, Australia

ABSTRACT

This paper addresses the continuing convergence and integration of digital electronic media, and in particular, virtual reality as an exemplar phenomenal media. The author explores and further develops the theme that each of such media entails a specific lexicon or language of use that continually evolves. For this media to be effective, however, it must be widely understood within its community of practice. In this paper, virtual reality is discussed as an exemplar new-media application as a means of virtual representation or reflection of events or behaviours in the real world from a socio-technical perspective.

Keywords: Communication, Convergence, Media Language, New-Media, Perception, Synthetic Worlds, Visualization

The continuing development and Moore's Law style growth in micro-electronics and related digital technologies, has inexorably led to the development of specialised human-machine interface systems necessary for the integrated use of such technologies. It is largely this integration of underlying technology and interface systems with continually changing modes of use and user expectations that drives the continuing evolution of contemporary new-media. In turn, the continuing introduction of new new-media based applications continues to influence and in effect transform the way we communicate, work, make decisions, rest and play.

Given the endemic presence of media hype, marketing disinformation and occasional more outrageous predictions of over-excited techno-

evangelists in the area of new technology and its application, it is sobering to reflect on Thomas Edison's observation, circa 1913: *It is possible to teach every branch of human knowledge with the motion picture. Our school system will be completely changed in ten years* (Attributed to Edison (1913) in Gould & Mason, 1985, p. 1.) Clearly, with the advantage of hindsight, a prediction about the role of motion film which failed to appreciate both the real potential and the limitations of film media.

Contemporary new-media is substantively based on the integration of multiple digital electronics and computer technologies. As such, it reflects a continuing convergence of what was previously considered disparate media with discontinuous applications. To a large extent this is no longer the case, as technologies and applications seemingly converge, or at least utilize common components and exhibit com-

DOI: 10.4018/jskd.2010070104

mon characteristics and interdependencies. In turn, this raises many questions of process and practice in the use of such still evolving 'new media'. For example, Manovich (2001) referred to such convergence as a computer media revolution that is affecting all stages of contemporary communication and impacting on all types of communication media, whether text, images, sound, or graphics construction based. *How shall we begin to map out the effects of this fundamental shift?* (Manovich, 2001, p. 19-20) He subsequently developed his argument along the lines of cultural transcoding of new and meta-media. A form of differential aesthetic wherein both media and the multiple and often divergent social and organizational cultural contexts in which it operates and is operated on, are in a constant state of change and interaction (Manovich, 2001; Murphie & Potts, 2003; Charles, 2009). In the context of considering organizational culture as a system of shared meaning within a given organization (Robbins & Barnwell, 2006) the implication is that the parameters that influence and affect the collected/shared meanings, beliefs, assumptions, behaviours and practices within a contemporary organization, are subject not only to internal shared pressures and adjustments, but also are affected by the (initially) external influences for innovation and change resulting from perceived opportunities and threats associated with new inbound technology, such as in this case, new-media.

In effect, the traditional business construct of a value chain for contemporary new media hinges on new media's capacity to represent and add value to information in a form capable of translation, transformation, and distribution wherever and whenever digital processes and electronic network communication is accessible. Today, this implies virtually any time, anywhere on the globe (Lister et al., 2009). In large measure then, the technological aspects of new media can be seen as a continually evolving new form and set of technological artifacts, as a consequence of continuing and widespread digitalization and presumed technological convergence of networkable media and

systems. Castells describes this mass diffusion of information and communications technology as being the key element in formulating a new social structure or 'networked society' (Castells, 1996). He further outlined a 'new economy' based on information and communications technology and exhibiting the three core characteristics of 'informational', 'global', and 'networked' (Castells (2000) cited in Flew, 2005). In a sociological sense this can be interpreted in the case of new-media as a continuing growth in connectivity between: purpose (for the introduction of new-media); functionality (of new-media as an effective communicative medium); role (of new-media within a given communication context); place (both at a geographical level and 'logical' positioning within a given community of practice); relationships to contemporary cultural norms (whether within or between organizational contexts or at a broader societal context); and its potency (ostensibly resulting from both technology-technology and business-technology convergence (Andriole, 2005)) as an inherently transformative media. As such, it is essential that we explore the nature of such potentially transformative media and determine just how, when and where we may utilize to best advantage its strengths whilst mitigating potential demerits (Woolgar, 2002).

However, the very notion of convergence is now itself a source of argument and re-thinking, from Manovich's 'cultural transcoding' (Manovich, 2001) to Jenkins's 'convergence culture' (Jenkins, 2006), Storsul and Stuedahl's 'ambivalence towards convergence' (Storsul & Stuedahl, 2007), and Knight and Weedon's 'shifting notions of convergence' (Knight & Weedon, 2009). The complexity and changing face of which, with regard to new-media and virtual reality (VR) related media in particular, is further compounded by the non-elemental character of new-media as a thriving hybrid of multiple (largely digital) technologies, sociological constructs (contexts, relationships, communicative behaviours and cultural norms) and (at least from a constructivist viewpoint) with an inherent capability to influence cognitive perceptions and related behaviours within

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/realising-virtual-reality/46142

Related Content

An Innovative Educational Project at the University of Granada: A New Teaching-Learning Model for Adapting the Organization of Curricula to Interactive Learning

M. Zamorano, M.L. Rodríguez, A. F. Ramos-Ridao and M. Pasadas (2012). *Trends and Effects of Technology Advancement in the Knowledge Society* (pp. 212-224). www.irma-international.org/chapter/innovative-educational-project-university-granada/70107

An Overview on Effectiveness of Technology Enhanced Learning (TEL)

Linda Daniela, Daiga Kalnia and Raimonds Strods (2017). *International Journal of Knowledge Society Research* (pp. 79-91). www.irma-international.org/article/an-overview-on-effectiveness-of-technology-enhanced-learning-tel/181263

Users' Perception of Internet Characteristics in the Academic Environment

Abdullah Almobarraz (2011). *Human Development and Global Advancements through Information Communication Technologies: New Initiatives* (pp. 271-280). www.irma-international.org/chapter/users-perception-internet-characteristics-academic/52143

Different Ways of Conceptualizing Mathematical Content for Prospective Primary School Teachers

Xhevdet Thaqi, Ana Isabel Rodríguez Valladares and Ekrem Aljimi (2021). *International Journal of Smart Education and Urban Society* (pp. 61-68). www.irma-international.org/article/different-ways-of-conceptualizing-mathematical-content-for-prospective-primary-school-teachers/266486

Developing Professional Knowledge and Confidence in Higher Education

E. Serradell-Lopez, P. Lara, D. Castillo and I. González (2012). *Trends and Effects of Technology Advancement in the Knowledge Society* (pp. 273-281). www.irma-international.org/chapter/developing-professional-knowledge-confidence-higher/70111