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## Editorial

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**Biographical notes:** Stephen Bronack is an Associate Professor of the Human Resource Development Graduate Degree Program at the Department of Leadership, Counselor Education, and Human and Organisational Development, Clemson University. His research interests include immersive technologies, and investigating personality and relationship factors that impact successful learning among distributed learners.

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Piet Kommers is an Associate Professor at the Department of Media, Communication and Organisation, University of Twente. He Chairs the IADIS conferences (<http://www.mccsis.org/>) and the e-society conference. In his work for UNESCO, he brings forward the blend between the nature and the culture of learning. He distinguishes the 'new' media as catalytical to communication and awareness. In his view, learning gradually embeds in every aspect of life pertaining to the delicate question if learning can be orchestrated anyway. Similarly, we may question if communication can be 'arranged' as we ought to believe at the dawn of the social web.

## **1 Introduction: community and virtual worlds**

Almost each of us is a member of various communities at once. We are neighbours, and colleagues, and caregivers, and learners – an amalgam of attachments and social contracts. It is through this overlapping of associations that we situate our being.

These situations become the media with which we forge our identities. By interacting with our neighbours, and influencing our colleagues, and guiding those who are watching, we both shape and are shaped by our communities.

Communities matter. We rely upon communities to help us both understand the world around us, and to express ourselves within it. Whether communing with one another for pleasure, or for work, or to learn something new, it is important for people to have access to one another at times – and in ways – that are both engaging and useful.

Increasingly, we are using pervasive technologies such as web-based social media and virtual worlds to do so. By the end of 2009, e.g., Facebook counted more than 350 million users (Smith, 2009). Second Life – one of the most popular virtual worlds in use today – boasts nearly 1.5 million active users, itself (Linden Labs, 2009). Virtual worlds, like web-based communities, are enabling individuals to connect with one another and to build effective communities in ways previously unavailable. Social media tend to become more and more immersive: participants perceive presence in 3D spaces like in Second Life. It allows its participants to navigate and meet others. The attraction of social media however transcends the attraction of physical immersion; it is the sensation of being connected to the larger group of persons that you know but never would meet simultaneously.

This special issue offers a collection of articles that help us understand emerging virtual world-based communities along the continuum of other, successful mediated ones – like web-based communities. Mediated communities share a developing history. The overlapping of virtual worlds and the web is exposing powerful opportunities and challenges for supporting and extending existing communities, as well as enabling new ones. In this issue, you will find considered reflection and useful guidance from a collection of researchers, designers, and participants who are forging the first paths.

## **2 Virtual worlds and communities**

Communities offer a sense of belonging, of shared purpose, and of common activity. To some, this type of connection implies a need for physical proximity (Short et al., 1976). However, others (e.g., Hung and Chen, 1991) have suggested emerging media – if well-designed – can account for proximity in meaningful ways, particularly in the context of learning environments, by enabling a sense of presence similar to those which face-to-face interactions provide. The desire to connect and to share prompts us to use increasingly immediate and immersive technologies to extend our presentations of selves, and to exert more influence upon the creation of the worlds in which we live.

### *2.1 Identity*

Social presence in mediated communities is created by projecting our identities online (Gunawardena and Zittle, 1997). In virtual worlds, this projection is primarily via avatars.

These three-dimensional anthropomorphic representations of ourselves provide a medium for embodiment within virtual worlds, and for communicating activity, emotion, and agency.

Virtual worlds open an avicentrist viewpoint to our identity; our second, third or Nth order selves. These mediated identities are pliable constructs – created, manipulated, and expressed in (virtual) situ. In this issue's first article, DiPaola, Turner and Browne describe a virtual environment called Traveler, in use for more than ten years. The authors suggest that, through active participation and creation, virtual world-based communities help members blend the story and the real, to offer a more holistic and accessible expression and experience of their own identities. Avatars provide a vehicle for stimulating creativity and for sharing what results, particularly in educational settings (Conway, 2007).

## 2.2 *Creation*

So, virtual worlds offer unique opportunities to express identities within mediated communities – but how are virtual worlds uniquely suited to the creation of communities, themselves? Lave and Wenger (1991) remind us that all communities are situated in the context of shared participation. By enabling more identity bandwidth, virtual world-based communities empower participants to explore the edges of creative ability in safe, trustworthy ways – and via identity lenses not available in other media.

For example, Kohler, Matzler, Hutter, Thiemann and Füller suggest in this issue's second article that virtual worlds offer unprecedented opportunities for companies to tap into the spirit of innovation, if the interaction opportunities provided within these environments are designed to facilitate sustained engagement and co-creation. They note that user-generated content is a key differentiator between those communities which remain vibrant, and those that become 'ghost towns'. Finally, the authors remind us of the importance of deliberately designing spaces to churn the community across social groups as a factor of advancing innovation and creation.

## 2.3 *Culture*

At the confluence of identity and creativity is culture. Communities serve as the identity 'markets', through which we come to be who we are via intentional activity with others.

The investments we each make in ourselves through this process – our 'identity capital' (Côté, 1996) – result in the artefacts that bind us to our communities. As community members co-create an identity, each community develops a unique culture.

In our third article, Games and Bauman introduce a framework for the evaluation and development of cultural competence in virtual environments. Drawing upon work-based in healthcare education, the authors argue that virtual worlds provide a valuable medium for integrating culture-rich experiences within clinical education. They note the importance of wrapping a culturally-competent lens around the activities, contexts, characters, and narratives designed within virtual spaces, with the goal of developing culturally-competent practitioners.

## 2.4 *Inquiry*

There is a digital nation in our midst – a so-called generation ‘G’ – with population numbers similar to those we might classify as ‘baby boomers’. This is a ‘gamer’ generation; a collaborative community that spans age and geography – except for in school. The Community of Inquiry model (Garrison et al., 2001) proposes that social learning is contingent upon three elements: social presence, cognitive presence, and teaching presence. These elements are also critical for success in most of the virtual world-based and other mediated communities in which generation ‘G’ is immersed.

In this issue’s fourth piece, Annetta makes the case for using virtual worlds and other immersive media to ‘rebuild the collaborative social structures’ we too often leave checked at the schoolhouse door. Using feedback and the perceptions of higher education students, the author reveals five themes for supporting collaborative learning and sense-making. Finally, he notes the participants’ clear view that the immersive and collaborative nature of virtual worlds makes them superior platforms for the facilitation of effective communities.

## 2.5 *Design*

But what design strategies are most effective for creating the collaborative social structures virtual world-based communities rely upon? To answer this, one must engage in a level of investigation and assessment that is difficult to access, due to the complex nature of both community and, in this case, the enabling media.

As Sloan (2009) reminds us, often it is users embedded within a creative, engaging community that provide the best insight into what design factors work best. In this issue’s final piece, Warren, Jones and Trombley systematically review common approaches to the design and the use of virtual worlds and video games for learning, and ways in which game research may provide insight into the use of immersive spaces for learning.

In addition, we welcome the article of Peter Mechant and Tom Evens. The article describes research on the online experiences and interactions by Last.fm users. Is a common interest in music enough common ground to establish a feeling of community, the feeling of entering a virtual world? Is a music website such as Last.fm able to build an effective community? The article provides qualitative data describing how these websites are used and experienced.

## 3 **Conclusions**

How do we build effective communities in immersive media, such as virtual worlds?

Significant challenges exist; but so do opportunities – particularly if the medium is digital. Gannon-Leary and Fontainha (2007) suggest motivation to join, shifting membership; lack of trust and lack of non-verbal cues in communication are all challenges. They also note factors that impact success, such as development of trust, a sense of belonging, a sense of purpose, and the longevity of the community itself. Although some in this list are relevant regardless of medium, others – such as non-verbal cues and sense of proximity – continue to both vex and compel researchers, designers, and participants of mediated communities.

Both web-based spaces and virtual worlds – when well-designed – facilitate the generation of effective communities. Our experience using virtual worlds for teaching and learning, however, has taught us that virtual worlds present different opportunities and challenges for designing well, compared to those that have led to success in other media (Bronack et al., 2008; Cheney et al., 2009). Virtual worlds extend the bandwidth participants gained on the Web in areas such as identity and creation. In areas such as inquiry and design, however, successful communities often must depart from principles that have girded success in the past.

Sometimes, opportunities and challenges seem self-evident. It seems reasonable, e.g., that we should evolve our media to build our communities where the members are. Other times, they do not. In 1971, i.e., the enabling capacity for mediated communities that the first e-mail called forth was not even self-evident to the person who sent it (Rainie, 2003). It took decades for e-mail's utility for community-building to become common wisdom. What game-changing capacities have virtual worlds opened for community builders that have yet to be conceived or explored?

This special issue offers glimpses of innovative work related to virtual worlds and community, including types and qualities of interactions, issues of identity and culture, and the design of spaces to facilitate relationships between members. It is our hope that the ideas presented in this special issue will contribute to the ongoing discussion of the affordances and challenges virtual worlds and other immersive environments present to us, extending the valuable lessons web-based communities have taught us about the formation and facilitation of effective communities.

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