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## **(Panel) Presence and Digital Tourism**

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Digital tourism is concerned with the use of digital technologies to enhance the tourist experience. This may be as mundane as posting recommendations on a tourist web site, but increasingly it concerns the mixing of the real world with digital content designed to enhance the visitor experience. These mixed reality technologies have been around for over ten years but it is only with the proliferation of smart phones and tablet (computers) that mixed and augmented reality interaction is reaching the mass market. There are now enough examples of mixed reality interactions that we can begin to abstract principles of design and principles of user experience (UX) for these new spaces of interaction.

Mixed reality comes in a number of forms, spanning the reality spectrum described by Milgram (Milgram, Takemura, Utsumi and Kishino, 1994) from digitally enhanced physical spaces to physically enhanced digital spaces. An example of the former would be a vineyard covered with sensors supplying data about moisture and other growing conditions of the vines. An example of the latter might be the guitar interface to the game Guitar Hero. In the middle lie many combinations of physical and digital objects and spaces, from QR codes on buildings providing information to GPS triggered events on a smart phone, to augmented reality overlays using GPS and compass information to a mixture of maps with real-time video of the physical location depicted on the map.

However, designers have very little advice on how to design for engaging user experiences in mixed reality. The concept of presence could be useful here as if we feel present in a medium we feel engaged with the content, but most research and reflection on presence concerns either tele-presence or presence in the real world. Presence can be seen as ‘the subjective experience of being in one place or environment even when one is physically situated in another’ (Witmer and Singer, 1998). It may be conceptualized as the ‘illusion of non-mediation’ (Lombard and Ditton, 1997). There is forward presence (‘being there’) and backward presence (‘being here’). In mixed reality environments we see the opportunities to push forward new and extended theories of presence.

In the case of mixed reality, people are increasingly inhabiting blended spaces — spaces that mix the physical and the digital. People are having new experiences brought about by the different layers of experience that are evolving as the digital and real worlds are increasingly intertwined. People move through these spaces and through layers of experience. They are present in a blended space. In Waterworth and Waterworth’s terms (2008) the sense of presence changes as the technology becomes increasingly part of the self and the mediated reality (the blended space) becomes part of the other.

In the tourism domain the aim is to blend the real and the virtual to provide a rounded experience and enhanced interpretation. Overlaying augmented reality battles onto the real battlefield site, or augmenting the ruined abbey with projections of how it once was aim to make people feel present in the past. Presenting historic characters to narrate their experiences brings a better sense of place to a space. Panelists will present and discuss their experiences with digital tourism creating a sense of presence.

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