Chapter 8
Live Virtual Technologies to Support Extended Events in Online Communities of Practice

Eleftheria Tomadaki
Knowledge Media Institute, The Open University, UK

Peter J. Scott
Knowledge Media Institute, The Open University, UK

Kevin A. Quick
Knowledge Media Institute, The Open University, UK

ABSTRACT
Online communities of practice often require support for collaboration over extended periods of time, in what are effectively very long meetings. While there are a wide range of support systems for ‘foreground’ interactions, such as phone calls and video meetings, and a similar range of tools for ‘background’ interactions, such as email and instant messaging, there is a lack in tools that exclusively cater for extended events without switching to different platforms. The current study presents qualitative and quantitative data from a naturalistic insight into the use of two online synchronous communication tools, FM for videoconference and Hexagon for ambient awareness, to support an extended event in a working online community. A complex mix of planned and opportunistic interactions require a new set of working synchronous tools, managing the trade-off between awareness and disruption. Switching between foreground and background ‘meeting activity’ remains a very big challenge.

INTRODUCTION
A wide variety of live communication tools are used by Technology-Enhanced Learning (TEL) communities of practice in order to meet and work virtually. These technologies generally provide a whole range of features, such as presence, availability and awareness, instant messaging, videoconferencing, ambient video awareness, collaborative tagging, social networking etc. Presence is an indispensable social software function, stimulating group awareness (Boyle & Greenberg, 2005; Chen & Gellersen, 1999) and the building of collective knowledge in online communities. Presence has evolved from just
being ‘online’ or ‘offline’ to a range of preferences such as availability or geolocation. In instant messaging systems, a set of presence attributes may include time, context, availability, location, activity, state of mind and identity. Presence is currently plotted to geographical maps with tools, representing the individuals’ presence with icons on maps. Geolocation can also be integrated in virtual learning environments and indicate presence and availability of contacts according to the courses a user may be enrolled on.

Along with presence, a great variety of tools supporting group interaction and location based social software applications make use of presence data for a wide variety of purposes, e.g. providing awareness of friends being in the vicinity or providing awareness of who is visiting online community sites, or recommending users with similar interests etc. Other social software features may involve activity awareness, indicating individual users’ thoughts to a community, such as in Twitter, describing a current activity, a goal, or an achievement etc. Video presence is another feature increasingly found in desktop applications and can be integrated in ambient awareness tools, forming collaborative media spaces, or used in videoconferencing applications. It can be argued that collaborative spaces can be considered as a collective product and can be transformed through the use of technology (Dourish, P., 2006). Following Kreijns et al (2002) “social affordances encourage social interaction, which is responsible for establishing a social space”. In Buxton (1992), person space is used to denote the sense of presence in videoconference participants who see each other’s facial expressions and task space is used to denote copresence in task realisation.

Tasks and activities may be realised in the context of foreground or background attention (Buxton, 1992) and collaboration can be changed from a background activity to a foreground activity (Sire et al, 1999). Foreground presence indicates that users are interacting with the other users. In the context of background attention, social awareness can run without any interactions, whilst being on the same shared space at the same time may cause the activity of meeting synchronously if needed (Sire et al, 1999), switching from background to foreground attention. However, when a background activity is switched into the foreground through a presence and collaboration tool in shared spaces, awareness changes and may be discussed along with issues of privacy interruption.

Online communities of practice need tools for social presence, group awareness and interaction that make their communication effective. Without such tools, the members of a community of practice lack the possibility to interact and construct knowledge collectively. Presence tools enhance the sense of community in a group, by making synchronous collaboration possible. Presence contributes to the social dimension in the collaboration of knowledge workers, and learning is not a lonely experience, but an activity that engages social skills together with the knowledge transfer. Collective activities can be improved when awareness tools are used in intense collaborative phases with community members working for a common task.

Interestingly, TEL communities of practice are usually supported by a range of tools providing ambient awareness for community building, instant messaging for quick opportunistic interactions and videoconferencing for pre-arranged meetings of an hour or so. However, these communities are often required to meet for days, in ‘hot’ collaborative phases. TEL community members can be engaged in ‘extended’ events, which can last many hours / days or even weeks or so and can include users ‘dropping in’ and ‘out’ of the workflow at many points. Most users may be involved in short, opportunistic interactions via text or video chat with other community members and may run applications on the background for community awareness for the rest of the time. A few other users may drop in the event for a short while to communicate with a specific person and then get back to their work. Extended events have
Related Content

Chinese Parents’ Perspectives on International Higher Education and Innovation
www.igi-global.com/chapter/chinese-parents-perspectives-on-international-higher-education-and-innovation/188062?camid=4v1a

A Cross-Country Comparison of Virtual Discussion Board Use in United States and Costa Rican Education Settings
Kari Hodge, Terrill F. Saxon and Jason Trumble (2013). International Journal of Web-Based Learning and Teaching Technologies (pp. 77-105).
www.igi-global.com/article/a-cross-country-comparison-of-virtual-discussion-board-use-in-united-states-and-costa-rican-education-settings/96899?camid=4v1a

Knowledge Flow and Learning Design Models towards Lifewide E-Learning Environments
www.igi-global.com/chapter/knowledge-flow-learning-design-models/29644?camid=4v1a

Integrating Learning Into Work: Design the Context, Not Just the Technology
www.igi-global.com/chapter/integrating-learning-into-work/208197?camid=4v1a