Chapter 11
Current Trends and Developments, Future Requirements, and Predictions for Computer Mediated Communications and E–Collaboration

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ABSTRACT

This chapter provides a revision and update to the authors’ original 2012 research that discussed fifteen semi-structured interviews carried out with international industry experts and thought leaders within the computer mediated communications and e-collaboration field. The original interviews focused on 5, 10, and 15-year time frames, and sought to elicit predictions on the components and services of future platforms, as well as their likely impact on business processes and value chains. Affinity Diagramming/KJ Analysis techniques on the original interview transcripts exposed a number of key tenets that are now revisited, discussed in a current context, revised and updated in this chapter. Following a similar structure to the 2012 paper, the authors discuss the origins of the field, main providers and platforms, related software development technologies, W3C standards, video conferencing, telepresence, cloud computing and Enterprise 2.0. The authors provide a synopsis of the original interviews and have updated their

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introduction

This chapter provides a revision and update to our original 2012 paper, “Future Directions of the Conferencing and Collaboration Field.” The paper presented 2010/2011 research from a series of fifteen intensive one to one interviews with conferencing and collaboration industry experts and influential thought leaders across business, education and scientific sectors. A range of issues related to the future directions of the conferencing and collaboration (C&C) field were raised, including technical, social, organisational and educational. The research aimed to provide a forecast into the short and long term directions for the C&C field as predicted by current practitioners and users.

This 2013 revised chapter will revisit the original work and provide new technical insights, service developments, innovations and current research and development trends for the C&C field. For the purpose of this chapter it was decided to expand the context of our research. With this in mind we have expanded our research remit to include a range of computer mediated communications (CMC) technologies such as video, audio and Web conferencing, collaborative virtual environments (CVE), virtual worlds, computer supported cooperative work (CSCW) and e-research environments. From thence any reference to C&C will be incorporated in the CMC term.

Our work will roughly follow the structure of the original paper. Section one will provide a historical research context and an update on new research directions. Section two and three will present a commercial focus from a market and CMC provider perspective with relevant updates on main players in the sector. Section four will address software development in relation to CMC and will discuss recent advances. Following this, section five discusses recent research and developments in relation to video conferencing, telepresence, CMC related standards, cloud computing and Enterprise 2.0. Section six will review the detailed interview analysis from our original paper with full revision and updated comments in relation to findings and conclusions. The final section (section seven) will re-visit our proposed CMC architecture and will also provide input on our current research work and its relevance to the future directions of the CMC sector.

1. CMC ORIGINS

The theoretical and technical origins of CMC can be traced back to the Computer Supported Cooperative Work (CSCW) developments of some 20 years ago. In research published in 1994, Grudin remarks that “CSCW started as an effort by technologists to learn from economists, social psychologists, anthropologists, organizational theorists, educators, and anyone else who could shed light on group activity.” (Grudin, 1994). During the early 90s, groupware emerged and was seen as an able technology for CSCW.

As CSCW evolved, the term Group Decision-Support Systems (GDSS) began to