Chapter 4
Emerging Forms of Collaboration
Communities of Practice Online through Networked Fictions, Dreams and Stories

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ABSTRACT

The chapter will outline the implications of two projects, namely the 'Phi Books' (2008) and the 'Digital Dreamhacker' (2011). These novel projects serve here as case studies for investigating new and challenging ways of advancing collaborative technologies, using in particular, Communities of Practice and insights gained from both embodiment and graph theory (social network analysis) as well as design. Both projects were developed collaboratively, between a computer programmer and a designer and a wider community of practice, consisting of other artists, writers, technologists and designers. The two systems that resulted also acted as methodologies, instigated by the authors with a view to facilitate, explore and comment on the act of collaboration. Both projects are multi-disciplinary, spanning ideas and techniques from mathematics and art, design and computer programming. The projects deploy custom-made software and fiction enmeshed structures, drawing upon methodologies that are embedded with dreams and stories while at the same time being informed by cutting-edge research into human behaviour and interaction design. The chapter will investigate how the projects deployed techniques and theoretical insights from social network analysis as well as motion capture technology and the wider concept of a Community of Practice, to extend and augment existing collaborative methods. The chapter draws upon Wenger et al (2002), as well as Siemens (2014) and Borgatti et al (2009), and will explore the idea of a new form of collective social and technological collaborative grammar, deploying gesture as well as Social Network Analysis. Moreover, the featured projects provide insights into the ways in which digital technology is changing society, and in turn, the important ways in which technology is embedded with the cultural and economic prerogatives of increasingly globalized cultures.

INTRODUCTION

The following chapter looks at the implications of two projects which represent two methodological systems, namely the 'Phi Books' (2008) and 'Digital Dreamhacker' (2011). These two systems, conceived collaboratively by the authors, have deployed custom-made software and fiction enmeshed structures with a view to facilitate, explore and comment on collaboration in itself.

Both projects are multi-disciplinary, spanning ideas and techniques from science and art, critical design and computer programming, performance and literature, while they are informed by research into human behaviour, identity and the wider concept of a community of practice. The projects have been presented at International Conferences and discussed in a wide range of peer reviewed academic papers.

This chapter will represent an opportunity to outline the project's implications for the understanding and advancement of collaborative technologies. Providing readers with technical and conceptual insight into their engendered by digital technologies modes of collaboration, it is hoped to open a space for further dialogue about the limits and possibilities of e-collaboration. The projects outlined in the chapter present subversive collaborative writing tools and social networking platforms for communities of practice in the context of Web 2.0 technologies combined with Web 3 collaborative, intelligent technologies, deploying concepts such as the semantic web and embodied computing. More specifically, the chapter will present how the two central case study projects have deployed and often re-appropriated evolving technologies such as motion capture and embodied, situated computing, presenting how context aware models of human subjects can combine with technologies to expand the agencies at play in collaborative works. The chapter will draw upon Wenger et al (2002), as well as Siemens (2014) and Borgatti et al (2009), and will explore the idea of a new form of collective social and technological collaborative grammar, deploying gesture as well as Social Network Analysis. Moreover, the featured projects provide insights into the ways in which digital technology is changing society, and in turn, the important ways in which technology is embedded with the cultural and economic prerogatives of increasingly globalized cultures. Through this, the authors will touch upon the interdependence of human identity with the socio-technological imaginary, providing a channel for broader dialogue and cultural commentary, as well as a conceptual challenge to established practices.

The chapter will start with a short description of the projects followed by a section situating the projects within collaborative learning theories and theories of Social Network Analysis. The main analysis will discuss how the projects act as a methodological approach and commentary on collaboration (with each other and with technology) and learning through communities of practice.

Description of the Case Studies: The 'Phi Books' and the 'Digital Dreamhacker'

The Phi books is an interdisciplinary collaborative project initiated by the authors in 2008. The project uses the house as a metaphor for interdisciplinary collaboration and is a response to the inadequacy of historical models for both theorizing and practicing creative research collaboration, and to an apparent lack of theoretical mobility across diverse disciplines. It has employed narrative, story telling, audience participation, code-writing, performance, maths, sophisticated motion tracking technology as well as custom software to explore how borders, walls and doors facilitate collaboration. The authors' research in different fields but with similar subject matters reminded them of the English terraced houses that seem identical in structure, but they are different since different people inhabit them. Initially, the authors bought two identical books, and used them as a metaphor for their houses. Stories were written for

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