Preface

Today’s workplace settings are in constant need of recurrent learning processes interwoven with daily tasks on digital spaces. However, these digital spaces are not devoid of any issues and hence suggest the need for employees to be conscious of the emerging issues.

Effective collaboration will increasingly be strategic differentiators for organizations of all types in the twenty-first century. Information and communication technologies have a critical role to play in helping organizations to achieve these goals. By publishing new theoretical and practical research findings, as well as providing a forum for broader discussion, this book contributes to the understanding and advancement of this important domain of electronic collaboration.

This book addresses the design and implementation of e-collaboration technologies, assesses the behavioral, cultural and social impacts of these technologies on individuals and groups, and presents theoretical considerations on links between the use of e-collaboration technologies and behavioral, social, or cultural patterns.

Research studies undertaken by Future Lab in 2007 have suggested that when people make a choice or decision not to use technology, even though access is available to them, then they are making an empowered choice. Above and beyond having the necessary access to online tools, online collaboration, therefore, is predicated on the ability to make an informed choice when and when not to make use of these tools. Online collaboration is not, therefore, simply a matter of ensuring that all individuals make use of these tools throughout their day-to-day lives, but a matter of ensuring that all individuals are able to make what could be referred to as “smart” use of technology, i.e., using it as and when appropriate. In this sense, not making use of an online tool can be a positive outcome for some people in some situations, providing that the individual is exercising an empowered “digital choice” not to do so, FutureLab concluded. The results of various studies in this book offer examples of empowered choices being made by users; for example, choosing to use the Web 2.0 tools such as the wiki or blog because making use of them increased information-sharing, which supported the participants’ progress with their projects in an organizational or academic setting. However, there are also times when participants are choosing not to use these tools because they have a preference for the more conventional methods such as face-to-face discussions or brainstorming. Various data also suggest areas that would be worthy of further exploration in terms of understanding whether or not the decisions made are empowered ones or not. A good example of this would be to provide meaningful and relevant information about how much “time” might be saved in the long run in terms of efficiency and improved collaboration outcomes. The results, therefore, build on existing theories and discourses regarding the use of online collaboration tools, but also challenge us to expand our understanding and application of these theories with regard to the following areas:
• Swapping and changing from a range of online collaboration tools;
• Being well-informed about the strengths and weaknesses of particular online collaboration tools in relation to usability and impact on learning;
• Developing a range of sophisticated and tailored strategies for using online collaboration tools to support their learning;
• Being extremely familiar with technology;
• Being aware of what help and support is available.

THE CHALLENGES

This book does not compare the impact of one collaboration medium over another and does not include the implications of mature use of collaboration technologies, which have been widely discussed elsewhere. Mature users of collaboration technology are more likely to report business benefits and staff benefits of their implementation and are also more likely both to align learning and collaboration with business goals and to measure success (Bersin Associates, 2008; Towards Maturity, 2009). Mature users are also more likely to blend collaboration and learning technologies within other approaches to develop business solutions.

This book does not attempt to isolate the specific role of technology in the blend, the maturity of the user, nor the process of business alignment, all of which influence results. Caution should be used in applying the results in this review; increasing the use of technologies in collaborative learning will not automatically achieve success or efficiency savings.

SEARCHING FOR A SOLUTION

The use of learning technologies in the workplace is on the increase. Those who are investing in learning technologies expect more from their investment. But is there clear and concrete evidence to illustrate that technology-supported collaboration and learning in the workplace actually delivers the type of bottom-line business benefits that organisations are looking for? This is the question that we investigate within this book.

The authors set out to identify and review a range of literature (academic, research, case studies, online and print) to look for examples of both workplace and academic implementation of collaboration technologies that have tangible results. Articles, reports and case studies have been investigated using the following parameters:

• **Employers:** The review focused on the business users of collaboration technologies and aimed to include small and large companies encompassing the private, public and third sectors.
• **Technology:** The definition of technology-supported collaboration/e-collaboration used in this review includes the application of collaboration technologies across the learning process from assessment of organizational and individual need to delivery of learning, learner support, management and administration, and formal and informal learning.
Preface

To identify information resources that address all of these three parameters, we approached an extensive network of global providers, experts (academic and non-academic), and employer membership groups in addition to conducting traditional literature research.

ORGANIZATION OF THE BOOK

The book is organized into seventeen chapters. A brief description of each of the chapters follows:

In Chapter 1, “Remapping Mental Models of Collaboration Using Immersive 3D Design Thinking Studios”, Dr Calongne from Colorado University in US outlines strategies for improving the perceptions and skills associated with collaborative effort using 3D visual cues, models, and methods supporting design thinking. Insights from eight years of applied immersive 3D design thinking studios involve faculty and students across industry, academia, and government organizations. The chapter concludes with recommendations for improving the perceived value of electronic collaboration involving trans-organizational teams.

In Chapter 2, “Exploring Social Learning Constructs in Corporate Informal Web-based Learning Environments”, Dr Lee from Yonsei University in South Korea explores social learning constructs in corporate informal web-based learning environments. As many organizations have taken an interest in social learning, they have been concerned with how to design effective social learning environments for their learners. Although there are studies regarding the importance of social learning, the use of social learning tools, and the implementation and challenges of social learning in the workplace, there is little research on what social learning constructs are crucial for designing social learning environments. As a result, community, interaction, and social media were identified as environmental constructs, and motivation and self-efficacy were identified as individual constructs.

A unique example of collaboration from the government sector has been depicted in Chapter 3, “Ecologies of Information & Communication Technology Platform Design for eGovernment Service Provision: Actors, Influences, and Fields of Play”. In this chapter, Shefali Virkar from Oxford University in UK critically examines both the role of Information and Communication Technologies (ICTs) in governmental reform processes and the contribution of such technologies to the deeper understanding of the social dynamics shaping e-government projects used to reform public sector institutions. In her chapter, Shefali contributes not just to an understanding of the role of ICTs in public administrative reform, but also towards that emerging body of research which is critical of managerial rationalism for an organization as a whole, and is sensitive to an ecology of actors and their various motivations within the symbiotic organisation.

In Chapter 4, “Emerging forms of collaboration: Communities of practice online through networked fictions, dreams and stories”, Alexandra Antonopoulou from University of Greenwich and Dr Eleanor Dare from University of Derby in UK look at two innovative systems created by themselves with a view to facilitate and explore collaboration. They show how two central case study projects have deployed evolving technologies such as motion capture and situated computing, in which non human forces become significant agents, The featured projects also 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. At the same time, the chapter will expand on philosophical discourses in regards to the utopian nature of collaboration. Their chapter contributes to critical design philosophies a channel for dialogue and cultural commentary, as well as a conceptual challenge to established practices.
In Chapter 5, “Digital Collaboration in Educational and Research Institutions”, Mr Muhtaseb from Qattan Foundation in Palestine explores the role of social media tools in promoting interaction and collaboration among teachers, students, researchers, scientists, and the public within the context of universities, colleges, research institutes, and science museums. He also makes use of crowdsourcing for scientific events as a case study.

In Chapter 6, “E-Collaborative Learning (e-CL): Overview and Proposals”, Mr Xafopoulos, a graduate student at University of London in UK, investigates e-collaboration with regard to the learning process. Mr Xafopoulos not only explores the core learning components with a focus on the technology, but also provides a classification of e-collaborative learning approaches. Throughout the chapter new approaches, methods and terms are proposed in the interests of the enrichment or the effectiveness of the e-CL process.

In Chapter 7, “Electronic Research Collaboration via Access Grid”, Prof. Zhang from Beijing Normal University in China reports some of the preliminary findings from a qualitative case study of the establishment of a three-year collaborative project that addresses how successful secondary chemistry teachers structure and handle the chemistry content of lessons. Prof. Zhang considers this EMT project as a bounded system, lending itself to being studied by using multiple data collection methods (semi-structured individual interviews, observation, and a review of key documents) in order to provide a rounded and comprehensive account of academic interactions over a period of time. This interpretive case study intends to form a knowledge base for developing a conceptual framework and theoretical assumptions about unseen professional learning mediated by technology in research networks for a future research project. It attempts to illustrate how the EMT project as a connected network formulates positive academic interactions and consequently facilitates professional learning immersed in research activities.

In Chapter 8, “eSF: An E-Collaboration System for Knowledge Workers”, Prof Bettoni along with his colleagues Prof. Bittel, Prof Bernhard and Prof Mirata from FFHS in Switzerland present an understanding of the essence of e-collaboration that these scholars themselves call as “knowledge-oriented”, because according to their opinion what matters in e-collaboration is the construction of shared knowledge; then they propose an architecture of referred to as an e-collaboration system - which includes people, processes and technology. These scholars also describe the implementation of this architecture in their team of the Research Management Unit at FFHS. These authors also suggest some success factors of E-Collaboration that have emerged as relevant for tapping the full power of E-Collaboration.

In Chapter 9, Barriers to Electronic Collaboration, Mr Owens Imarhiagbe from Kingston University in UK tries to provide answers to some important research questions with regard to the barriers in e--collaboration in every sphere of social and human endeavours. Mr Owens Imarhiagbe discusses electronic collaboration in terms of the challenges associated with people, process and technology. Although technology has enabled the expansion of e-collaboration over a decade, Nosek and McManus (2008) identified technology as a major challenge to the development and advancement of e-collaboration. Mr Owens Imarhiagbe argues that technology provided the necessary support for progressive e-collaboration in the past and technology also has the responsibility to resolve the challenges impacting e-collaboration today and the future.

Chapter 10, “The Impact of Social Networking Sites on the Arab Community “.Prof. El-Khoul from Helwan University in Egypt explores and identifies the social and political implications of social networking in Arab countries and suggests policy options and avenues for further research. Three important questions that he seeks answers throughout his chapter are: 1) What is the effect of the amount of interaction with these sites to improve political awareness among the students of Arab universities? 2) What is the effect of the amount of confidence in the information provided by these sites to improve
the political awareness of the students? 3) What is the effect of the time period for the membership to improve the political awareness of the Arab Universities students?

Chapter 11, “E-Research: A Way of Learning Together?”, Prof Diviacco from OGS in Trieste, Italy, aims to address issues such as what would be the commonalities between collaborative learning and collaborative research? Can this comparison be used to help in the development of tools to support such activities and in order to avoid as much as possible the above-mentioned traps? In this analysis she reports on the experiences of several international projects her institute was involved in, where they have been in charge of the development of web based tools to support heterogeneous communities to grow from different backgrounds and paradigms and to construct collaboratively knowledge. Prof Diviacco explores and reports on the possible paths that can be followed aiming at this, such as the formalization of knowledge or leaving collaborative knowledge to emerge freely such as in simultaneous “hands-on” processes such as in forums, wikis or social networks.

In Chapter 12, “Role Negotiation in Collaborative Projects”, Prof Donaldson from Western Oregon University in US argues that the processes and roles produced by the culture of digital communications are characterized by impromptu and ill-defined organization, spontaneity, democratic decision-making, and continual morphing of roles. Based on his own professional experience, Prof Donaldson proposes a process of role negotiation through which the effectiveness and efficiency of digitally-mediated collaborative projects (ranging from the highly formal to the highly informal) can be optimized.

In Chapter 13, “The scholarship of engagement and generative learning communities: Preparing EFL leaders for authentic practice at the American Spaces Philippines”, Mrs Celine Okol from Cebuana University of the Philippines outlines the collaborative activities undertaken by the EFL project, a cooperation between English as a Foreign Language (EFL) educators and administrators at partner schools, universities, and American spaces in the archipelago counterparts and funded by the US Department of State’s Bureau of Educational and Cultural Affairs (ECA) and Bureau of International Information Programs (IIP), which aims at assisting with the production of more and better-qualified English as a Foreign Language (EFL) educators and administrators. She demonstrates how the project sought to help in setting up more productive and effective teacher education programs, to build capacity at partner schools, universities, and American spaces in the archipelago via collaborative activities such as e-scholarships, webinar courses.

In Chapter 14, “Supporting Electronic Collaborative Experiences at Universities based on Learning Spaces and LAMS”, Dr Papadimitriou from the Ministry of Education in Greece, Mr Papadakis, a tutor-counselor in Open University of Cyprus, Prof Lionarakis, Associate Professor in Hellenic Open University in Greece present us a case study in the Hellenic Open University regarding the design and the development of a learning sequence on the topic “Implementing essays” and the views of tutor-counselors of using LAMS. The Learning Space of the case study aimed at achieving a high degree of interactions among students, students and tutors, and also at guiding them between face-to-face meetings when they prepare an essay. The authors also present a methodology to create collaborative sequences highlighting the advantages, the requirements and the relevant constraints of using LAMS.

In Chapter 15, “Online Communities of Practice and Web 2.0”, Dr Manzoor from Bahria University in Pakistan explores the concept of Communities of Practice and how Web 2.0 technologies can facilitate the transformation from a conventional community of practice to online community of practice for better and effective online communities of practices. Dr Manzoor asserts that in contemporary Knowledge Management, communication and collaboration play very significant role and knowledge exists within the stakeholders of an organization. This knowledge, embedded in the people, must be properly released
through an appropriate channel to make it usable. Through dialogue and discussions, using online tools, this release and reuses of knowledge can be made possible.

In Chapter 16, “Guidelines to innovate organizations by knowledge management via communities of practice”, Prof Da Silva proposes to achieve an innovative environment via Communities of Practice (CoP) in companies that doesn’t know Knowledge Management (KM). The contribution of the paper is to elucidate the relevance of KM presenting a research and the literature of KM, CoP, Organizational Culture and Information and Communication Technology. Any company that doesn’t know KM and needs to be innovative may use the original twenty two guidelines.

In the final chapter of this book, “Utilizing Digital Collaboration Tools for Non-Formal Learning Practices”, I examine how a group of employee volunteers in IBM used Web 2.0 tools for their collaborative learning practice and what assumptions they had for using the tools. I present multiple approaches to using the tools and list multiple assumptions participants had for such a practice. I explore how the use of these online collaboration tools has been appropriated by employee volunteers for their practice of volunteering and how they influenced the process of their meaning-making. By doing so, I aim to raise an awareness of the digital tools that provide collections of traits through which individuals can get involved in non-formal learning practices by having digital interactions with others.

Ayse Kok
Bogazici University, Turkey

REFERENCES


