Preface

The only man who is educated is the man who has learned how to learn...how to adapt and change.... Changingness, a reliance on process rather than upon static knowledge, is the only thing that makes any sense as a goal for education in the modern world. (Kirschenbaum & Henderson, 2002, p. 304)

An adventure can be either an exciting and unusual experience or a hazardous undertaking, or both, according to the individual’s aptitude to the new. Learning can be seen either as a work or an adventure, according to the individual’s aptitude to self-direction. In a learning adventure perspective, learners aim to satisfy a personal desire of acquiring knowledge and skills in order to empower themselves, to become experts in a domain, and to interact as an important node in a complex system of networks. A learning work, instead, consists in the activities of learners who attend a structured curriculum (Leo, Manganello & Chen, 2010). In this view, a learning adventure may be seen as adult lifelong learners’ everyday practice. The shift from a learning work to a learning adventure approach is not easy to achieve in education systems because of a persistent traditional model of knowledge. Currently, the growing adoption of a lifelong learning vision, the affordances of ubiquitous learning and social semantic computing technologies, and the large amount of open learning resources available are posing to practitioners and educational institutions the challenge of meeting adult lifelong learners’ learning needs and aims more effectively.

Lifelong learners are “active citizens,” that is autonomous individuals who actively participate in civic life, who are capable of self-learning (Leone & Guazzaroni, 2010) and who are engaged in the development of not just knowledge and understanding, but of skills and behaviours picked up through experience of participation in a range of contexts. Therefore, more personal, social, and participatory approaches are needed to support these learners in becoming active users and co-producers of learning resources, rather than gaining control over their learning process as a whole, and in pursuing personal life goals.

The increasing awareness that learning takes place mainly outside the traditional formal settings, especially for adult lifelong learners, has challenged educational institutions to rethink their offer and their interactions with learners. Education is now perceived as much more holistic and flexible than in the past, taking place in a wider set of contexts and intending to increase personalisation and autonomy for the learner. It is no more the user who adapts to the learning environment, but it is the education system that designs learning environments on the learner’s needs and prior knowledge.

As a result, adult education practitioners’ debate is open on the possible ways to effectively integrate formal and informal eLearning environments. Specifically, the focus has been placed on Personal Learning Environments (PLEs) as learner-centred spaces, against Learning Management Systems (LMSs) as organisation-centred platforms that typically overlook individual differences and potential.

Reframing the transmission and the management of knowledge means reflecting on far beyond its access, on its construction and reproduction, on social active participation, on new roles and relations.
Lifelong learning paradigm responds effectively and coherently to the need for greater emphasis to be put upon flexibility, transferability, personalisation, modularisation, and mobility in education.

However, are teaching and learning developing to make these changes possible? Can we really speak of “new” learning environments? Are learning tools and support adequate for adult lifelong learners? How does the teacher’s role change when formal and informal eLearning environments are integrated? How does the adult lifelong learner’s way of working change? Which learning strategies are useful in these integrated technology-enhanced environments? What are the changes and the expectations when conventional class activities are, partially or completely, shifted into an integrated technology-rich learning environment? How should the adult lifelong learner’s efforts in personalised learning be supported?

Undoubtedly, the adoption of a lifelong learning paradigm has to be embedded in a highly technology-enhanced educational setting to respond adequately to the pressure of these times. However, the persisting voices sustaining that technology is the only solution to a still partially rigid and remote education system can be hardly ever shared.

The embracing of the latest technology cannot alone carry any durable, regular, and efficient improvement to teaching and learning to turn current learning environments into “new” ones.

The results of successfully validated student-centred models of integration of LMSs and PLEs that are present in recent research literature point out that, even though an attentive design of the underlying technological architecture is necessary, this change in perspective towards student-centred technology-enhanced learning environments brings about a rethinking of knowledge, knowledge management, teaching and learning, networks, and the individual. Information overload, heterogeneity, and distribution make interoperability and exchange data crucial in order to better support lifelong learners’ and teachers’ needs. Personalisation, trustworthiness, and assessment on the collection of resources are relevant research issues that call for suitable adaptive mechanisms and Social Semantic Web tools to be adopted within integrated formal and informal eLearning environments for adult lifelong learners (Leone, 2013).

Finally, the shifting role of education systems in networked organizations is a decisive change to facilitate learners to develop and participate in diverse personal learning networks. This process is catalyzed by two dimensions: the learner’s awareness of the importance of a personal approach to knowledge (“learn to learn”); secondly, the learner’s interaction with a learning community capable of stimulating, negotiating and validating personal modes of knowledge management in a knowledge-sharing environment.

The space between these two dimensions has to ensure participation in a shared context, but also the opportunity to react creatively and autonomously to it. An integrated vision of a learning environment has to modulate the varied modalities of transmission of knowledge: from traditional to intentional trans-generational transmission to a self-directed and metareflective one.

This work focuses on actual research experiences of implementation and validation of integrated formal and informal eLearning environments for adult lifelong learners, which include innovative and effective tools for the dynamic personalisation of learning.

This book presents an edited collection of accounts, issues and case studies written essentially by practitioners in adult education who have firsthand experience of attempting to define, develop, implement, or evaluate personalised learning technologies in integrated formal and informal eLearning environments for adult lifelong learners within their practice in a vast range of scenarios. The accounts describe, from a variety of perspectives, what the practitioner was trying to achieve through the use of such learning spaces and how and why they went about trying to achieve such personalisation exploiting the synergy of the integration of formal and informal eLearning. The accounts also present reflections on what went well and what authors would do differently as well as providing grounded guidelines.
The content also includes institutional and organisational changes and perspectives on the culture and management changes required as a consequence of introducing and implementing environments which are seen as counter institutional.

The book has three main sections: Infrastructural and Cultural Issues, Pedagogical Issues, and Technological Issues. The first section considers the major infrastructural, cultural, and organisational issues if integrated formal and informal eLearning environments are going to produce any change in the institutional system. This section brings together the pedagogical issues with the technical issues for consideration on an institutional level. All the chapters provide a balanced analysis of theory, practice, methods, and case studies. The section on pedagogical issues describes the different ways in which practitioners have used integrated learning technologies and gives personal examples, which illustrate both the potential and drawbacks that the new learning systems provide as a consequence of integration. The section on technological issues presents descriptions of the tools and platforms, which practitioners are using, outlines their strengths and weaknesses, and highlights issues that need to be considered when planning to implement integrated formal and informal eLearning environments for adult lifelong learners.

CHAPTER DESCRIPTIONS

This book consists of 12 chapters, written by 24 authors, loosely grouped into three sections as follows.

Section 1: Infrastructural and Cultural Issues

This section considers the major infrastructural, cultural and organisational issues if integrated formal and informal eLearning environments are implemented in the institutional system. This first section brings together the pedagogical issues with the technical issues for consideration on an institutional level.

Chapter 1: “Profiling and Supporting Adult Learners.” Chi Zhang and Guangzhi Zheng. Adult learners are a large group for higher education. Adult learning is different from children’s learning in that adult learners are more self-directed, having prior experience, and are internally motivated to learn subjects that are more relevant to life and can be applied immediately. Understanding adult learners’ characteristics can help institutions and instructors support adult students’ learning and success. This chapter reviews the adult learning theories and methodologies and how they can be applied in adult learning. The chapter also discusses adult learners’ characteristics and what teaching strategies and practice may facilitate adult learners’ needs. Distance learning technologies and integration of the technologies are discussed. Different levels of support and recent initiatives for supporting adult learners are investigated.

Chapter 2: “Towards an Adult Learning Architecture of Participation.” Fred Garnett and Nigel Ecclesfield. This chapter investigates the question of what needs to be addressed in the major infrastructural, cultural, and organisational issues if integrated formal and informal eLearning environments are going to affect any change in the institutional regime. It argues that two conceptual models can help address these issues. Firstly, a social media participation model, Aggregate then Curate, was developed on a JISC-funded project, MOSI-ALONG, which was based on an integrated model of formal and informal learning called the Emergent Learning Model. Secondly, a development framework for institutional flexibility called an Organisational Architecture of Participation was developed with UK Further Education colleges to better enable eLearning within educational institutions. Based on reflection on the institutional lessons learnt within MOSI-ALONG and through working with local partners, recommendations are
made concerning how to address infrastructural, cultural, and organisational issues to better enable adult eLearning. This includes another, broader, proposal concerning the need for individual adult learning institutions to have ongoing support from hubs if they are to evolve a community-responsive institutional life cycle appropriate for adult learning.

Chapter 3: “From Basic Participation to Transformation: Immersive Virtual Professional Development.” Diana Ayling, Hazel Owen, and Edward Flagg. In a time of great change and challenge in education, teachers have an “urgency” with regard to their professional development. Many educators are choosing to move away from traditional modes to participation in online communities of practice. The aim of this research was to verify that online communities of practice can support transformative learning and positive professional development experiences for members. Two community platforms were observed and examined in terms of online activity. In addition to the formal research methods, the researchers monitored the activity of a selection of community members, tracking their engagement and participation in the communities. The research demonstrates that rich and transformative learning and professional development can occur in online communities of practice. The authors highlight some of the values and skills required by both the community and active members. They conclude that well designed and deftly supported online communities have a bright future for professional learning and development.

Chapter 4: “Participatory Barriers to the Informal Learning of Older Australians Using the Internet and Web 2.0 Technologies.” Michelle Sofo and Francesco Sofo. This chapter aims to explore the real and perceived barriers that exist for older Australians when engaging with informal eLearning. The chapter has two main areas of focus: first, an examination of some of the challenges faced by older Australians engaging in informal eLearning, and second, an overview of two Australian initiatives designed to break down the barriers between older Australians and technology. The chapter commences with a review of the international literature to define informal learning before considering the intersection that exists between informal learning and online learning. The emerging social issues of the ageing Australian population are then presented to provide context to the main exploration within this chapter – the real and perceived barriers that exist for older Australians as they attempt to engage in eLearning. After discussing two community initiatives and introducing a model for surmounting the identified obstacles, the chapter discusses possible solutions making relevant recommendations and suggesting directions for future research.

Chapter 5: “Adapting Informal and Formal Learning Skills for Success in the Virtual Learning Environment.” Bob G. Barrett Jr. Learning in itself is not done in a vacuum. In today’s competitive worlds of academia and business, students and current workers struggle daily to compete and remain competitive in a vastly changing world, market, and technological evaluation. What one prepared for prior to joining the job market has probably changed greatly in only a matter of a few years, and technology is still evolving. However, two items have remained constant over the past several centuries, the use of formal and informal learning. While not all people have the luxury attending college and university, informal learning has served as a tool in which a variety of stakeholders have helped others to learn and grow from each other. The key emphasis of this chapter is to focus on these two types of learning, but with a concentration on their relevance in the virtual learning environment. The topics of time management, group interaction, communication skills, and social media are examined in terms of how these skill sets can be useful to the virtual learner.
Section 2: Pedagogical Issues

The section on pedagogical issues presents descriptions of the different ways in which practitioners have used integrated learning technologies and gives personal examples that illustrate both the potential and drawbacks that the new learning systems provide as a consequence of integration.

Chapter 6: “Complex Learning: A Way of Rethinking Teaching and Learning.” Eleonora Guglielman, Marco Guspini and Laura Vettraino. This chapter presents Complex Learning, a pedagogical approach based on personalization, hybridization of learning environments, tools and codes, and participatory learning. In this approach, students are supported to become active users and co-producers of learning sources, within the paradigms of complexity, transactional theory, and ubiquitous learning. Its innovative connotation rises up from the pedagogic literature that defines it as a new pedagogical model and from the experiences realized by the authors during the recent years. Complex Learning is able to face the challenge of rethinking teaching and learning, empowering and renewing adult learners' and trainers' competences, attitudes, expectations, and effort. Here are described the theoretical foundations, the methodological issues, the practices, and the future perspectives of application of the Complex Learning approach. The practices carried out demonstrate that Complex Learning, with its characteristics of openness, dynamism, and flexibility, can be successfully applied to the fields of vocational training and adult education; they also indicate that, in order to have tangible results, it is necessary to work towards a change in the educational perspective and toward the acquisition and consolidation of specific competences of trainers and tutors.

Chapter 7: “First Steps in The Development of a Model for Integrating Formal and Informal Learning in Virtual Environments.” Victoria Marín Juarros and Jesús Salinas Ibáñez. Educational technologists are currently researching how to enhance education through integrating the different aspects of individuals' learning. It is commonly known that all people learn by different means and contexts, so formal learning is only a part of the whole process of their learning. In this chapter, the authors present current progress in developing a methodological strategy model that aims to integrate formal and informal learning at university. For this purpose, they start with the foundations of this study and a description of its design and initial rollout in an undergraduate course, “Primary Teacher Training,” at the University of the Balearic Islands in Spain. Although the study is currently still being carried out, it is worth highlighting some insights and reflections of the on-going implementation and future research directions of the study.

Chapter 8: “Moving from Theory to Practice: Integrating Personal Learning Networks into a Graduate-Level Student Development Theory Course.” Melissa Johnson. While higher education grapples with new and emerging technologies that are changing the way courses and degree programs are delivered, as well as how students and faculty communicate with each other, the field of student affairs has been relatively slow to adapt to this changing landscape. The purpose of this case study is to describe the integration of technological skills and competencies into a graduate-level education course for future student affairs professionals, a relatively new phenomenon for graduate preparation courses. A brief overview of the field student affairs and student development theory is followed by an in-depth description of the adapted course, course assignments using technology, and the results of those activities. Recommendations for graduate preparation programs are provided at the conclusion of the case.

Chapter 9: “Street Poetry in Augmented Reality.” Giuliana Guazzaroni. Mobile device and augmented reality facilities may represent access points to navigate the city, to observe different layers of reality, to redraw the urban geography, and to explore the real environment. It is an emotional journey to observe familiar places from different perspectives and angles: a continuous sliding between two worlds (real
and virtual), an invitation to participation, reflection, and rediscovery of public spaces. “Street Poetry in Augmented Reality” exhibitions are urban paths to engage citizens, students, and visitors with local heritage, memories, and art. In this chapter, the format “Emotional Mapping of Museum Augmented Places” is discussed using the evaluation of the experiences that were implemented in two different Italian towns: L’Aquila and Macerata.

**Section 3: Technological Issues**

The section on technological issues presents descriptions of the tools and platforms that practitioners are using, outlines their strengths and weaknesses, and highlights issues that need to be considered when planning to implement integrated formal and informal eLearning environments for adult lifelong learners.

*Chapter 10:* “Lingobee Mobile App: Connecting to Language Learners through Technology.” Emma Procter-Legg, Sobah Abbas Petersen, and Annamaria Cacchione. This chapter describes case studies conducted in five European countries, where language learners were invited to use “LingoBee,” a mobile app, as a means of supporting their language learning. Assuming that today’s language learners are mobile savvy and “Digital Natives” and that they should be able to engage in language learning autonomously using technology, initial studies were conducted with little or no intervention by the language teachers. However, the support and guidance provided within a teacher-led context can impact positively on learner engagement. The case studies confirm this hypothesis. This chapter addresses the research question: Does the level of the support and guidance and pedagogical approach impact on learners’ engagement and the synergy between formal and informal learning? Based on the experiences from the five case studies, recommendations are provided for teachers and designers of educational technologies.

*Chapter 11:* “Capturing the Semantics of Simulation Learning with Linked Data.” Irene Celino and Daniele Dell’Aglio. Knowledge-rich learning environments like simulation learning sessions call for the adoption of knowledge technologies to effectively manage information and data related to the learning supply and to the observation analysis. In this chapter, the authors illustrate the benefits and the challenges from the adoption of Linked Data and Semantic Web technologies to model, store, update, collect, and interpret learning data in simulation environments. The experience gained in applying this approach to a Simulation Learning system based on Serious Games proves the feasibility and the advantages of knowledge technologies in addressing and solving the issues faced by trainers and teachers in their daily practice.

*Chapter 12:* “Google Apps as a Cloud Computing Solution in Italian Municipalities: Technological Features and Implications.” Giovanni Biancofiore and Sabrina Leone. The Agenda Digitale Italiana, the strategic plan for the implementation of the Digital Agenda for Europe 2020 in Italy, aims to help citizens and businesses to get the most out of digital technologies, in order to deliver smart, sustainable, and inclusive growth. One of the pillars of this strategic plan is cloud computing, which a growing number of Italian public administrations have been activating. Different solutions have been adopted. Among these, Google Apps has been chosen for its integrated tools, low cost, and steep learning curve. This chapter aims to investigate the ongoing change in the technological architecture for eGovernment in Italian municipalities and the implications of the shift towards Google Apps as a cloud computing solution on their personnel’s empowerment. On the basis of the analysis of the best practices, recommendations will be provided for an effective implementation of Google Apps as a cloud computing solution to foster staff’s continuing professional and personal development in Italian municipalities.
CONCLUSION

The twelve chapters included in this book were selected from a large number of submissions. They embrace different subjects, group sizes, and institutional types – art to social, whole communities to individual delivery and engagement, large universities to small departments, undergraduate to post graduate. They are driven by the enthusiasm of the professionals involved to foster “changingness,” not by simply using technology to meet the need for integration of formal and informal learning, but by applying technology in an innovative way to enhance, enrich, and extend the learning in which adult lifelong learners are engaged.

This book provides a state-of-the art of the best practices in the field of reference. Further, it informs learning technology practitioners’ practice in adult education by presenting pros and cons of the value of using integrated and personalised formal and informal eLearning environments. The book presents case studies, research findings, and developments that will provide grounded recommendations and benchmarks for the readers to evaluate how, why, and where their own implementation of technology is in tune with the “changingness” stream within the context of a synergic integration of formal and informal eLearning environments for adult lifelong learners.

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REFERENCES


