Chapter 7
Unlocking Lifelong Learning Through E-Heritage: Using Mobile Technologies in Genoa

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ABSTRACT
Lifelong learning is often associated with the sociology and the economics of education. However, its broader and more holistic context, which includes learning through involvement in cultural activities, tourism, leisure, and recreation, is much less known. The relationship of this term to the rapidly changing world of Information and Communication Technologies and to various conceptions of interaction is also worthy of further investigation. This article seeks to shed light on that theme by presenting a novel IT platform involving mobile technologies that can enhance access and consumption of cultural heritage community resources. Drawing on material from the ISAAC European project, the article demonstrates how lifelong m-learning can be supported by an integrated e-destination platform that enables the user to build content and engage with that through a variety of applications over time. It concludes with a demonstrator system for the city of Genoa, Italy, to highlight the pathways to change.

INTRODUCTION
Lifelong learning is often associated with the sociology and economics of education, but its broader and more holistic context that includes learning through involvement in cultural activities, tourism, leisure, and recreation is less known. The relationship of this term to the rapidly changing world of Information and Communication Technologies (ICT), and to the various conceptions of interaction that are central to these technologies is considered less frequently (Friesen & Anderson, 2004). In the cultural heritage and tourism domains the gap has
been particularly great. This article seeks to shed light on the relationship between lifelong learning and the interactive technologies that can enhance access and consumption of cultural heritage goods and services using integrated platforms involving mobile technologies. In particular, it shows how lifelong learning can be enhanced by enabling the users to build heritage content and engage with that and other users through a variety of applications over time.

There is a vast body of literature on lifelong learning which emphasises the traditional context of learning occurring in the formal structures of the educational system. In this article, we take the broader, more holistic and rapidly emerging notion that this is a process of acquiring knowledge and skills throughout one’s whole life via education, training, work and general life experiences and is closely associated with time, space and place (Hargreaves, 2004; Sanchez & Lumbreras, 1995). The concepts of lifelong learning and knowledge should thus be laden with other content, people’s values, believes and identity (Gustavsson, 2002), involving a humanistic and democratic sense in which the resources brought from history and heritage are used and transformed to a new form. It could be argued therefore that lifelong learning is an open discourse that evolves in specific settings, like places visited for exploration and fun (e.g., tourism destinations), which requires putting space back on the map to ensure that the heritage of culture and knowledge of space and time is safeguarded and preserved for future generations. In this way lifelong learning produces a greater love of learning in diverse places of learning activity; libraries, museums, and cultural sites, for example (Edwards, 1997; Tujman & Boström, 2002). In the knowledge-based society this entails using new and advanced information and communication technologies. Moreover, amidst a rapidly growing global network, individuals, organisations and societies should become more flexible in order to participate in the ongoing processes of lifelong learning any time and any where (Edwards & Usher, 2000), enabled by the new mobile technologies. We should move the learning, not the learners, as suggested recently by Kyle Jr. and Murray (2008). Transforming learning in the mobile age through interaction and creating learning communities was earlier proposed by Riger and Gay (1997). More recently, Koper and Tattersall (2004) endorsed the use of mobile computing to enhance lifelong learning in the domain of heritage through conversation, not just between heritage users—tourists and residents alike—but between them and the heritage and tourism providers (museums or heritage centres) using integrated platforms and mobile services (see Paskaleva, Azorin, & Chiabai, 2008).

Despite this growing interest, holistic and challenging digital learning environments and platforms that link people and content in the area of heritage and lifelong learning are still few and far between. Designing personalised mobile technologies is also lagging behind (Sharples et al., 2005). There are also many challenges facing mobile services; limitations of mobile devices, cost, networking problems, infrastructure constraints, and user distrust of mobile applications, to mention a few, suggesting the need for further research into usability, user interfaces, and mobile access to databases, among other things (Siau & Shen, 2003). The creation of a new culture of learning through network technologies with mobile access is therefore still to occur.

Unlocking the learning value of mobile devices (Roscchelle, 2003) in heritage and cultural tourism still appears to be a challenge, but the enthusiasm to meet it is shared by the participants of the ISAAC international research project “Integrated e-Services for Advanced Access to Heritage in Cultural Tourist Destinations” (ISAAC, 2008), funded by the European Commission’s Sixth Framework Research Programme. The main aim of the project is to valorise (give a value to) European cultural assets as tourism resources using digital technologies, which helps to add new value to heritage assets by enhancing access and