Chapter 22

An Innovative Architecture of a System for Storing and Managing Intangible Cultural Heritage

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ABSTRACT

In this chapter an innovative architecture of a system for the collection, preservation, management and access of intangible cultural heritage is proposed. It allows local or national cultural heritage organizations and local community members to acquire and manage intangible cultural contents and to admit access for potential users to these contents through mobile devices and intelligent interfaces.

INTRODUCTION

Culture is inherited and that makes it our heritage. Every society or group lays claim to its heritage. Cultural Heritage comprises material (physical) relicts of the past as well as the immaterial, or Intangible Cultural Heritage (ICH), as defined by UNESCO.

ICH consists of "the practices, representations, expressions, knowledge, skills–as well as the instruments, objects, artefacts and cultural spaces associated therewith–that communities, groups and, in some cases, individuals recognize as part of their cultural heritage" (UNESCO, 2003). This heritage includes:

- Oral traditions and expressions, including language as a vehicle of ICH;
- Performing arts;
- Social practices, rituals and festive events;
- Knowledge and practices concerning landscape, nature and the universe;
- Traditional craftsmanship.

ICH is the basis of society. By its nature, it is in a constant creative flow and change, continually challenged by "globalization" (the dynamic exchanges between global and local patterns of culture). It provides a rich tacit knowledge for challenges we are facing today (e.g. traditional knowledge on irrigation systems, on regularly occurring natural phenomena etc.). So, ICH contains customs and fashions of the society. It helps people to create collective memories.

Preserving this heritage is a difficult task that involves the communities, but also memory organizations, as libraries, archives and museums, in the preservation and management of the cultural aspects of each community.

The aim of this chapter is to propose an innovative architecture of a system for collection, preservation, management and access of intangible cultural heritage. It allows acquiring and managing intangible cultural contents and to admit access for potential users to these contents through mobile devices and intelligent interfaces. The system is addressed to two classes of users:

1. Local community members and memory organizations (expert users), providing them with methodologies and tools to acquire, store and manage ICH.
2. Various users that want to access information provided by the system (final users), e.g. public administration in charge of the protection of ICH, UNESCO, funding agencies, researchers, organisers of cultural events, museums, archives, libraries, tourists, tourist information centres, historic city centres or any larger heritage site. They can receive

information about the ICH in according to their locations by means of sensors (location-based access), or independently from their location through a natural and enjoyable interaction with smart devices (for all other access).

The chapter is organised as follows. The next section reviews same basic concepts of Information Technology related to the area of ICH. The middle sections of the chapter describe the components of the proposed architecture and present its main peculiarities and the operational scenario. In the last sections the progresses beyond the state-of-art are illustrated and some conclusions are given.

BACKGROUND

Preserving ICH has played a major role in the cultural policies and programmes at all levels (local, regional, national, European and international) in recent years. In particular, the UNESCO's Intangible Heritage Section is furthering a large number of programmes that involve different countries around the world and that deal with the promotion of measures and policies for the preservation of traditional and popular practices, expressions and representations. In fact, if nothing is done, the risk is that a large number of intangible heritage objects will be lost.

In October 2003, UNESCO defined a Convention to adopt measures with the aim to create inventories of the ICH. According to Article 12 of the Convention, each State Party is required to create and regularly update one or more inventories of the ICH present in its territory. As States Parties are free to structure their inventories how they prefer according to their needs, existing national inventories and catalogues, generally developed by research institutions or ministerial agencies, vary considerably in content and approach. Some of these are organized by administrative divisions,

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