Chapter I

Interactive Multimedia

MUSICNETWORK: An Introduction

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ABSTRACT

The MUSICNETWORK project was cosupported by the European Commission to bring music industry and related research areas into the interactive multimedia era. It represented a virtual Centre of Excellence during the period of the project, and today an international association, where music content providers, cultural institutions, industry, and research institutions work together, drawing on their collective assets and mutual interests, to exploit the potential of multimedia music contents with new technologies, tools, products, formats, and models. Due to large gaps between needs and real products and solutions, many products in the market fail to exploit the potential of new multimedia technologies effectively. MUSICNETWORK helps research solutions to reach the market by seeking agreements between different actors and formats by bringing together research institutions, industries, small and medium enterprises (SMEs), and experts to build the required momentum to study and define multimedia music modelling and coding for the new age. MUSICNETWORK activities, actions, and services are provided through the project Web site, which can be found online at http://www.interactivemusicnetwork.org.

INTRODUCTION

The main achievement of the MUSICNETWORK has been the creation of an effective community to bring European music industries and content providers into the interactive multimedia era. This is the result of a collaborative effort by many people from different contexts, including content providers, institutions, research centres, industries, and experts in the field of multimedia.
music. Since the early beginning of its establishment, the MUSICNETWORK community has been pursuing a common goal to study different aspects of music coding, protection, and distribution in order to improve the existing standards and to foster wider exploitation of music related contents, tools, and applications.

What has been clear since the beginning was the need to identify suitable models and solutions to integrate and make available the knowledge coming from music publishers, digital libraries, universities, standardisation bodies, research institutions, music associations, end-users, music schools, information technology companies, commercial content distributors, and other players in music industry. To address this need, the MUSICNETWORK project implemented concrete actions for integrating these types of knowledge and bringing music into the interactive media era (see Figure 1). A set of activities was implemented to provide a better understanding of the real requirements, to better assess to the state-of-the-art research and technology, to integrate currently available technologies, and to strategically steer all these activities toward the project’s objectives.

From what has been done over the last few years, we believed that these activities have accelerated the process of development and adoption of applications in the area of multimedia music, and also in the area of digitisation and conversion of archives and digital collections by both reducing technical problems and creating awareness about the capabilities offered by present technologies and solutions.

**MUSIC IS NOT ONLY AN AUDITORY EXPERIENCE**

Music is part of an integrated multimodal communication. It can be integrated with many other related aspects of the music piece to provide necessary contextual information to enrich the experience of the user. For example, a handwritten music score can be shown in synchronisation with actions of a performer, such as a soloist or a conductor, during a live performance. Besides music scores, other related information, such as a composer’s biography, can also be associated with the music and/or performance. All these additions can offer the user a wider view and greater knowledge about a musical piece and/or the composer. This approach can introduce different musical genres to a wider audience and enhance cultural understanding and knowledge.

Another important application of interactive multimedia music lies within the context of music
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