THE AUDIO COMMONS INITIATIVE

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ABSTRACT

Significant amounts of user-generated audio content, such as sound effects, musical samples and music pieces, are uploaded to online repositories and made available under open licenses. Moreover, a constantly increasing amount of multimedia content, originally released with traditional licenses, is becoming public domain as its license expires. Nevertheless, the creative industries are not yet using much of all this content in their media productions. There is still a lack of familiarity and understanding of the legal context of all this open content, but there are also problems related with its accessibility. A big percentage of this content remains unreachable either because it is not published online or because it is not well organised and annotated. In this session we present the Audio Commons Initiative, which is aimed at promoting the use of open audio content and at developing technologies with which to support the ecosystem composed by content repositories, production tools and users. These technologies should enable the reuse of this audio material, facilitating its integration in the production workflows used by the creative industries. Here we sumarise the core ideas behind this initiative and outline the ways in which we plan to address the challenges it poses.

1. INTRODUCTION

The democratisation of multimedia content creation and the social media revolution have changed the way in which multimedia content is created, shared and (re)used [3]. Online multimedia sharing has experienced a huge growth in the last decade, yielding significant amounts of user-generated multimedia resources, a big part of them available under open licenses [1, 2]. Furthermore, significant amounts of professionally created multimedia content released with closed licenses, are now becoming public domain as their licenses expire, but nevertheless remain unused. At the same time, media industries (content users) need to reduce production costs in order to remain competitive. In the particular case of sound and music, increasing amounts of audio material, like sound samples, sound-

scapes and music pieces, are available and released under Creative Commons [1] licenses, both coming from amateur and professional content creators. For example, Jamendo [2] is a music sharing site which contains more than 470k music pieces released under Creative Commons licenses, and Freesound [3] is a sound sharing site with more than 300k sound samples (including sound effects, instrument samples and field-recordings among others) also released under Creative Commons licenses. We refer to all this audio content plus any other content that could potentially be made available as public domain or under Creative Commons licenses as the *audio commons*. Using Creative Commons copyright licenses, content reuse possibilities are much broader than in traditional copyright models. The Creative Commons modular nature of its licenses provides a clear and powerful framework in which content creators can specify the rights for reusing their published content. There is, therefore, an opportunity for media industries to incorporate audio commons content in their productions, but this is not yet an extended practice.

There are a number of reasons why such content is not yet extensively used in the professional sector. A major one is the lack of a shared culture and understanding within the creative industries of open content and its potential use. But there are also technical and practical issues that do not facilitate this usage. Despite the amount of audio commons content available in online repositories, such as those mentioned above, most potentially useful content remains scattered around the web (if available at all) and typically not properly labeled with specific licenses or reachable through search engines. Also, the nature of audio commons content, coming from a variety of sources and from authors with different levels of expertise, results in unstructured (or not uniformly structured) mass of content. As opposed to, for example, professionally crafted sound libraries which have been manually curated and whose content has been carefully annotated, audio commons content is often unorganised, limiting its potential retrieval and reuse possibilities. Moreover, no tools are easily available to search and incorporate audio commons content in the production workflows of content users in the context of the creative industries.

We see these reasons as challenges that must be addressed in order to make the use of audio commons content an extended practice in the creative industries. In this

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[1] http://www.creativecommons.org
[2] http://www.jamendo.com
[3] http://www.freesound.org

late-breaking demo session we will talk about our vision of a technology-driven ecosystem of content, users and tools that should facilitate the reuse of audio commons content in the professional sector and, by extension, in the independent or non-professional sectors too. We call this the *Audio Commons Ecosystem* (ACE), and its initial development is being funded by a project grant from the European Commission. But perhaps more importantly, besides the actions that will be carried out during the lifetime of the project and the initial development of the ACE, we frame this ecosystem in the broader context of what we call the Audio Commons Initiative [4]. The aim of the Audio Commons Initiative is, starting from the project consortium, engage as many stakeholders as possible, involving them in the definition, development and expansion of the ecosystem. We expect that the concept of Audio Commons and the ACE will have a big impact on the creative industries including, but not limited to, video games production, music production, sound design and audio-visual production.

2. ABOUT THE THE INITIATIVE

The Audio Commons Initiative is the result of the realisation that audio commons content has a huge potential for being reused by the media industry and that is not yet being properly exploited. The main objectives that we envision are the following:

- Promote the publication of audio content as audio commons and foster its reuse by the creative industries, breaking the existing barriers between content users and content creators (either amateur or professional), and proposing a model for audio consumption in media production better aligned with the current trends in the digital economy.

- Develop technologies to support the ACE, making them open and widely available. These technologies will enable and promote the interaction between content creators, content providers, content users, tool developers and further potential actors, facilitating the publishing, licensing and consuming of audio commons content.

- Develop innovative technologies to automatically describe sound and music recordings in the context of search and retrieval applications. These technologies will also be made available under open licences and they will enhance the value of the audio content within media production applications.

- Bootstrap an Audio Commons Ecosystem, publishing a significant amount of audio commons content through it and building tools that can consume the content and be embedded in existing creative workflows of the industry.

- Define open standard procedures for new stakeholders to join and participate in the ACE, fostering its

growth, maintenance and sustainability. These procedures will define how to produce and consume content within the ACE.

We are working towards these objectives with the support of the European Commission, through the AudioCommons project which runs for three years from February 2016. Besides the development of the particular tools and technologies of the ACE, the project will address intellectual property and business-related challenges that emerge from the initiative. We will evaluate complex reuse scenarios using existing Creative Commons licenses, and make recommendations about their usage, putting a special emphasis on clarifying (re)licensing procedures for those pieces of content that require it (e.g., from CC-BY-NC to CC-BY). We will also propose business models that can arise from the concept of Audio Commons and make the ACE self-sustainable.

The AudioCommons consortium is formed by leading research institutes in sound and music computing and key players in the creative industries. Academic partners include the Music Technology Group from Universitat Pompeu Fabra (MTG, project coordinator), the Centre for Digital Music from Queen Mary University of London (C4DM), and three research groups from University of Surrey: the Centre for Vision, Speech and Signal Processing (CVSSP), the Institute of Sound Recording (IoSR) and the Surrey Business School. On the industry side, the AudioCommons consortium includes Jamendo (one of the biggest platforms for sharing independent Creative Commons music), AudioGaming (an innovative company developing next generation audio tools for sound designers and video game developers), and Waves (world's leading developer of audio DSP solutions for the professional, broadcast, and consumer electronics audio markets). Furthermore, we encourage other stakeholders (e.g., companies, institutions, individuals, etc.) to support and become part of the initiative by participating in the development of the ecosystem, becoming content providers, tool developers or, in general, content users and creators.

3. REFERENCES

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[4] http://www.audiocommons.org