



Deliverable D3.5

Evaluation of the business models emerging from the ACE

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Executive Summary

This deliverable is part of WP3, a work package that (1) clarifies intellectual property aspects of the ACE, (2) relates them to the different Creative Commons licensing strategies, (3) defines procedures that explain to content creators, content providers, tool developers and content users how to interact with the ACE, (4) and studies emerging business models and long-term sustainability models for the ACE.

The deliverable 3.5 assess three different business models that may emerge from the creation of the Audio Commons Ecosystem (ACE) and which were presented in the deliverable 3.4. These are: (1) an API-based model, based on business-to-business distribution of services, (2) a web-based interface with API offering a marketplace for open sound and related services, and (3) a community-based open sound platform similar to Wikipedia. The objective for this deliverable is to assess the feasibility of each of the business models by discussing particular challenges and possibilities linked to each of the models. As a common factor that underlies all the presented models is the need to find a balance between financial sustainability and the ethos that is linked to the Creative Commons (CC) licensing system, which is also a key driving force behind the project. The main issue is how to guarantee financial sustainability in a process where large part of the contributions are made voluntarily and without a clear financial motivation. Even though the intention here is driven by the need to reach financial sustainability instead of profit-making, there is a risk that if viewed by relevant actors more as the latter, it can have detrimental implications for example in participants' willingness and motivation to participate and contribute to the functioning of the ecosystem.

In addition, this document continues the work done in deliverable 3.4. to explore the areas where ACE and CC-driven audio production and consumption can be applied to a wide range of products, services and different forms of creativity. However, in this process the specific characteristics of CC-licensed content have implications on the business models that can be applied. As a general rule, content that has been licensed under irrevocable CC license can be difficult if not impossible to sell as content, as this can easily contradict with the ethos of CC, subject to the license in question. Instead of selling content, regarding business models like the marketplace the document suggests selling additional rights instead of content. Although not without challenges, this type of approach would be in line with the core principles of CC.

The document starts from recapping the key points and main characteristics of the three business models discussed in the deliverable 3.4. Then, it further expand these models by discussing the challenges and opportunities in light of current trends in the industry and based on available evidence of the ACE so far. Next, the report proposes ways to overcome the challenges in order to reap the potential of the different models. Taking into account that the ACE has already set important pillars for the project to continue beyond January 2019, a key feature of this deliverable is to assess the possibility of combining elements of the different business models to maximize the potential of the ACE to secure its financial sustainability as well as to suggest ways to minimize potential unwanted consequences.

Overall, this deliverable provides a holistic picture of the possibilities and challenges linked to the models that arose in the lifetime of the project and looks at how the outcomes from ACE can best be deployed by both audio content providers, consumers, industry and the initiative itself. In this regard, it also lays out future steps on how to make use of the results of the project in a best possible manner.



Background

This Deliverable is part of the WP3 work package, which concentrates on understanding the rights management requirements and business models for the ACE. This document relates objectives stated in Deliverable 3.3 regarding the possible directions of Audio Commons' ecosystem business model architecture. The analysis of these objectives contained in this document is a continuation to the Deliverable 3.4 supporting the development of Audio Commons position in the creative industry.

Using input acquired during the Business Model Workshop conducted in June 2017, views from project partners during project meetings and insights from current trends in the industry, this deliverable concentrates on two major aspects: (1) the evaluation of the three business models presented in Deliverable 3.4 by discussing their strengths and weaknesses and suitability in relation to the ethos of ACE; (2) suggested paths for combining different business models in order to reach the most sustainable and beneficial outcomes regarding the future implementation of ACE. In this sense, the document provides building blocks for possible and viable models the ACE could take in the future, which is a discussion that is taken further in Deliverable 7.6.

The document is interconnected with other documents in Work Package 3, which have concentrated on the significance of CC licensing, business model development and presented the guidelines for including new actors in the ACE, as well as to Work Package 7, that explores the exploitation and sustainability of the project in the future.



1 Introduction

The Audio Commons Ecosystem (ACE) will have the capacity to provide a number of functions for various actors with different needs representing gaming, music, and film/advertising industries, all based on content licensed under Creative Commons (CC) framework. At the same time, it is necessary for ACE to be financially sustainable, which raises questions on how to monetize on these different functions in a manner that does not go against the core principles of CC, and with that, the content providers that are the lifeline for the ecosystem. Regarding this, this deliverable investigates what kinds of challenges as well as possibilities are linked to the different business models discussed in Deliverable 3.4. The three business models are the following (1) establishing API as a paid service for tool developers; (2) creating a marketplace platforms for creators and consumers of sound; (3) creating a community-run platform operating in a similar way to Wikipedia. To begin, we briefly recap the key aspects of each of the business models, followed by the analysis of the challenges linked to the models from the perspective of ACE. In addition, we highlight the tension between the objectives of ACE and business models per se, and point out for possible ways to overcome those. Finally, we also take a look on the possibility of combining the three different models and the implications this might have on ACE.

1.1 Main objectives and goals

Objectives:

- Assessment of the business models for the Audio Commons;
- Analysis of the strengths and challenges of each of the models from the perspective of the core principles of CC;
- Provision of foundations for the discussion on the future use of the outcomes resulting from the Audio Commons.

1.2 Terminology

AudioCommons: reference to the EC H2020 funded project AudioCommons, with grant agreement nr 688382.

Audio Commons Initiative: understanding of the AudioCommons project core ideas beyond the lifetime and specific scope of the funded project. The term “Audio Commons Initiative” is used to imply i) our will to continue supporting the Audio Commons Ecosystem and its ideas after the lifetime of the funded project, and ii) our will to engage new stakeholders which are not officially part of the project consortium.

Audio Commons: generic reference to the Audio Commons core ideas, without distinguishing between the concept of the initiative and the actual funded project.



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Audio Commons Ecosystem (ACE): series of technologies and actors involved in publishing and consuming Audio Commons content.

Audio Commons content (AC): audio content released under Creative Commons licenses and enhanced with meaningful contextual information (e.g., annotations, license information) that enables its publication in the ACE.

Content creator: individual users, industries or other actors that create audio content and publish in the ACE through content providers.

Content provider: services that expose content created by content creators to the ACE.

Content user: individual users, industries or other actors that use the content exposed by content providers and created by content creators in their creative workflows.

Tool developer: individual users, industries or other actors that develop tools for consuming (and also potentially publishing) Audio Commons content.

Embeddable tools: tools for consuming Audio Commons content that can be embedded in existing production workflows of creative industries.



2 Business models from the ACE perspective

In order for ACE to actualize all the potential obtained from the projects results, for example in terms of licencing components, additional resources are needed to cover the technological, educational and other developments, to which the project could not allocate resources. These additional resources could be collected through the use of different business models that would be incorporated into the products and services that ACE is able to provide. As it has become evident, many of the tools and materials developed so far have a lot of potential in benefiting a wide array of audiences, ranging from content providers to consumers and enterprises of various sorts. In sum, in order for that full potential of ACE to be actualized and to enable its future growth, ACE needs to develop a business model that enables it to gather sufficient funding to finance these additional developments and to guarantee its future sustainability.

Deliverable 3.4 presented three different business models that can be applied to ACE in order to reach this sustainability. As noted in that document, “in the most general terms a business model describes the rationale of how an organization creates, delivers and captures value in economic, social and cultural contexts”. Business models can be seen as representations, conceptual tools, as a method or as a pattern (Arend, 2013; Baden-Fuller & Morgan, 2010; Shafer, Smith, & Linder, 2005; Teece, 2010; Zott et al., 2011). Following this, business models are seen as conceptual models that articulate the logic and activities put in place to create, deliver and appropriate value from a business. As Teece (2010) points out, business models act as the ‘architecture’ of a business which lays out the customer segments of a business, the ways the activities and resources are organized within it, and how it aims to make profit (Magretta, 2002; Teece, 2010).

However, in relation to ACE, the word business model in a manner highlights the key challenges related to the models. ACE derives its core principles from the Creative Commons framework, which advocates for production and consumption of content that is often not commercial in its nature and in most cases not meant to be used in profit making. Much of the audio content relevant for AudioCommons has been produced by people who are not seeking financial gains, but instead view themselves more as forming part of a community. They create and produce content that others can, within certain limitations depending on the license they deploy, use for their own purposes for free. Against this background, the notion of profit-making by an entity such as AudioCommons, which in many ways acts as a middleman between content creators and users, does not necessarily sit well. Among other things, this might impact the motivation of content producers to contribute, something that ACE is very much depend on in its quest to thrive.

The key point here though is understanding what is being monetized, how the revenue is utilized, and if and how it is distributed across actors such as content providers. Content that is licensed under Creative Commons can in some cases be complicated to sell as the requirements put forward in the licenses of content may trace back across various content creators. In addition, selling the content can be quite complex, already because the CC license of the content has implications for example on how profit should be distributed. Furthermore, as noted above, the more psychological dimensions linked to motivation to contribute might be affected and more difficult to overcome, even though the involved legal aspects could be solved. This in certain ways is similar to some of the challenges faced in relation to open source projects and monetization, where the issues of what drives people to contribute and how to make profit have been discussed more extensively.



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In this document, we discuss the issues linked to monetization, CC licencing framework and motivation to contribute and apply those for the three business models presented in the Deliverable 3.4. To some extent, these were already highlighted in the document through the usage of the modified version of the business model canvas, developed by the Creative Commons foundation. In its version, CC added few additional areas to their canvas: **Social Good**, **CC License**, and **Overall Environment Open Business Fits In**, as those are areas that “open” businesses explicitly need to define in their business models. This deliverable aims to take the analysis bit further, and looks into how to make revenue from ACE that at the same time is in line with the objectives of the project and the principles driving CC.

In the following, we will describe the three business models and for each of them, analyze their strengths and challenges from the perspective of the issues discussed here.



3 Business model 1: paid API service for tool developers

3.1 Description

The first business model is a paid API service that is based on the usage of the tools and technologies developed under ACE. The key idea is to provide service to commercial consumers, which struggle with finding audio content of decent quality and appropriate for their needs. The model is based on facilitation of finding content that matches the needs and wants of customers, which is done through analytical tools annotating and sorting open content as the customized search allows easier browsing of content and integration of the catalogue with automated, machine-based operations.

In other words, the value given to commercial partners through the service is based on: 1) connectedness with the largest repositories of open sound; 2) unique sorting mechanisms and annotation of content; 3) greater ease of browsing, downloading and consuming content. This solves the problem of dispersed, poorly described libraries of open sound by enabling commercial partners to access content and use it in their commercial projects, such as computer games, virtual apps or other innovative initiatives, via an API. There is a usage fee for access to API over a certain number of requests, while a free service will be available to tool developers wanting to test the service (with a limited amount of requests via the API). This business model aims to encourage the emergence of API-based applications such as automatized usage of content for machine-based composition, multimedia tools or any other types of ventures. Use cases can be found from Deliverable 3.4.

3.2 Benefits and challenges of the model¹

When set up properly, the API model offers a relatively straightforward manner of monetization, which has also been tried and tested by entities such as Google and Here Technologies, although in contexts different from Audio Commons. It enables the interested parties to test the service before paying for the service, which on its part reduces the risk for the targeted customers and enables developing services using the API before signing up. In addition, applied to sectors such as gaming or other creative industries, the API tool in combination with sorting and annotation tools provides these actors an innovative way to use CC-licensed music in their projects. Furthermore, the API business model enables the users of the service to upgrade their plans as their businesses and usages expand.

The challenges regarding this business model relate to the question on what is it that exactly is being sold. The pricing is based on the connections made, but ultimately the users are paying for the service or the content they get via the API. From the perspective of the users of the API service, this question is not likely to be of importance at first instance, yet for the content creators it is. If they feel that

¹ This section as well as 4.2 and 5.2 draw from useful material written by Jonathan Robinson under the supervision of Kari Koskinen and Carla Bonina.



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Audio Commons is reaping benefits from something that they have done voluntarily, this might have implications for their willingness and motivation to provide content. Audio Commons has to find a way to either distribute those profits obtained via the API or making clear for the content providers that the mere purpose of the business model is to guarantee sustainability and to develop Audio Commons further, and get at least the majority of content creators and providers to accept this and continue contributing.

In the case of revenue from the API being distributed among the content creators, this might to some extent go against the ethos of CC. The licensing framework is based on the idea that it creates possibilities for reuse and consumption of content, in many cases for free. Furthermore, CC licenses are irrevocable, i.e. once content has been released under a particular license, that license cannot in principle be changed later on, with the slight exception of the possibility for the author to re-distribute the content under a different license. In practice this means that if content is licensed under CC0 license, which basically gives away all the rights and the users of the content can even sell the content for their own profit, the original creators of the audio are not going to receive anything from the revenue gained, nor can that content be sold. If the content is re-used and licensed under a different CC license, this can cause tension between the creators as the other one receives monetary compensation while the other does not. Also in the case the new content is licensed under the same CC0 license, this might raise suspicion among the API service users if they feel that they are paying for content that they could get for free as well. In this case, it is also important that the paying users of the API service hold the view that they are being charged for the convenience of the API and not for the content that it provides.

If users of the service view themselves more as paying for the content, one possible way to overcome the above challenges is to sell additional rights instead of content per se. This would mean that the payments only applies to content under more restrictive CC licenses and the users of the API service pay for getting additional rights to the existing CC license to use the content in a way they want. For example, if the license of content X prohibits commercial use (CC license NC), then the basis for the payment would be getting the additional rights to use the content commercially. This would also be in line with the norms and rules dictating CC.

However, technically this might be more difficult to achieve, especially in terms of configuring the API, and in case content is being re-used, there is also a need to have a record of the people who have participated in the making of the audio and on their rights regarding it. Finally, an agreement with the content providers is required on how much to charge as well as how to distribute the revenues across all the involved creators and Audio Commons. All these might be easier to address in the marketplace business model, which will discuss next. Overall though and as noted above, the best approach would be if the users of the service would see themselves more as paying from the technological tools and not so much from the content that is often free anyway, and in addition to this, the content creators would be happy with this type of arrangement.



4 Business model 2: marketplace

4.1 Description

The second business model proposition is an exchange platform, which is essentially a digital version of a traditional business model based on brokering transaction between parties for a fee. Its uniqueness will be based on providing an open sound exchange platform supported by analytical tools, permitting filtering of high quality results. It will offer free content without any fee, working as an invitation for users to test the service. The fee will be imposed on paid content by service providers, who transact with their customers and share the revenue with Audio Commons. The main access to the exchange platform will be through the web interface but it will also have an open API, allowing integration with other software.

The purpose is to deliver value by enabling sharing and reselling open audio content that is hosted by content providers and owned by their users. The platform will facilitate browsing and searching for content because of unique annotation tools and tagging of content. It will also offer a unique system of prominence - allowing rating creators and owners of content and improving knowledge about content's owner and origins, which largely contributes to overcoming problems regarding commercial usage of CC-licensed content.

4.2 Benefits and challenges of the model

In relation to the API business model, the marketplace business model provides a clearer mechanism to approach the question on what is being sold and by whom. The users who come to the marketplace are basically looking to get access to audio content of certain characteristics, which is further facilitated by the technological tools provided by the ACE. Even though the issue on the compatibility of CC and profit-making remains to some extent an issue, the marketplace provides a clear area where this activity can take place. The content that is to be sold is either paid content by the service providers or then it is based on selling additional rights to CC licensed audio content. This is possibly more straightforward to carry out in a marketplace type of environment than for example in an API, as the characteristics of online marketplaces are widely familiar for users and also for the producers and creators of content. Other services, such as APIs of different purposes or technological tools such as annotation or audio creation tools can be incorporated into site hosting the marketplace and those can also function as additional sources of revenue.

In addition, the marketplace can have functionalities that enable interaction and, if so wanted, for example rating of content by others. These can be important for the content creators in terms of gaining recognition or simply being able to communicate with other actors such as content users. These can be further used to build for example analytical or other relevant tools that can help with content search among others.

Overall, it is important to keep in mind that the API and marketplace business models are not necessarily exclusive, but in some ways can also be combined. From the perspective of organizing



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the content and the tools, the marketplace approach provides a clearer foundation for gathering the content and tools for the same place as it requires the existence of a platform on top of which the transactions take place. However, this platform can also function as a foundation for other business models such as those based on APIs.

Similar to the API business model, the issue on how content creators would view the notion of making revenue and Audio Commons' role in it is also present in the marketplace business model. However, regarding the selling of additional rights, the marketplace business model is most likely better suited to do this than the API model, as challenges linked to revenue sharing are less complex to address, although the questions on profit distribution and how much Audio Commons can take has to be agreed also in the marketplace model.

Another issue that needs to be thought however is whether selling additional rights to existing licenses has the impact that more and more content providers start licensing their content under more restrictive terms with the hopes of making financial gains. This is something that is less likely to happen when the key motivation for uploading content is to gain recognition and being part of a community, which is also why the third business model that is based on donations is less challenging in this respect.



5 Business model 3: wiki-like

5.1 Description

Third type of business model is based on community participation and developed around a non-profit idea of increasing availability of sounds and audio under AudioCommons. Similar to the ways in which Wikipedia operates, this service will be community-based and reliant on member participation. It is financed from donations, and rests on the non-profit funding model directly tied to the reciprocal relationship that is cultivated with the beneficiaries of the work done by AudioCommons. Because of the non-profit nature, this approach will distinguish it from the more commercial approaches discussed above and connects with users and creators who are unwilling to follow the traditional sound and music industry path. The site will also be “all in one place” - so a unique service with multiple offerings - from separate sound bites to full songs and music services.

5.2 Benefits and challenges of the model

The advantage of this model is that it clearly differentiates itself from the other business models as the donations are voluntary and are in many ways in line with the ethos of CC. It is unlikely to be viewed as profit-seeking on the part of ACE by the content providers and creators, since the whole foundation of the approach rests on the idea of a community and voluntary contributions. This also means that it is less likely to impact the motivations of the content providers to continue providing content for the ACE, which relies and to a large extent is also dependent on these contributions. Furthermore, in terms of re-using CC licensed audio content this model might be less challenging as it does not need to generate revenue from selling additional rights to the content and as a result, to distribute the revenue.

What is noteworthy though is that this model needs a large scale of users of the service. Not everyone will donate, and the bigger the pool of those receiving value from the content, the more likely for the strategy to work. Allowing users to freely access the content and creating a community who will support actions of a platform outside of traditional music market institutions is hoped to create a sense of a public good and a social mission and attract large audiences and contributors. Related to this, it can be difficult to estimate the amount of donations coming in, and it can very well be that not enough revenue will be gotten to make ACE sustainable.

In relation to the amount of contribution to be expected, as an example Wikipedia during the 2014–2015 fiscal year saw more than 4 million donors give \$75 million USD to support Wikipedia through the Wikimedia Foundation. However, at the same these numbers have to be compared to the amount of Wikipedia users, and also to the fact that it is a well-known platform that has been more than 17 years in operation and has the ability to monetize through other channels. What comes to the amount of donations in monetary terms, the average donation that Freesound receives is around 8.5 euros and it gets approximately around 450 donations per month. Furthermore, it is noteworthy that



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Freesound does not get these donations automatically but this also requires marketing activities to get users to donate.

Overall the amount of donations ACE requires depends on the form it eventually takes and the services it provides. However, it has to be recognized that especially in the very beginning it can be difficult to raise enough donations as ACE has not had sufficient time to be established itself properly among its targeted users.



6 Combination of the three business models

Due to the factors discussed above, a combination of the three models is the recommended path for the future of ACE. The foundation of ACE could be built on the wiki-like model in order to foster the community around Audio Commons. In order to avoid being solely dependent on donations, services that function on the basis of the other two models could be added later on. This would enable viewing the API and marketplace as additional services, in which the main factor for their deployment would be in the services they provide and facilitate, and not so much on the actual content that flows through them. As noted, the risk is that if seen otherwise, this can have implications to users' motivation to contribute and to some extent contradict with the ethos of CC.

The API model could be used in relation to the API developed in the project and the selling and operating the API would be done via the site. This could have the added benefit of guaranteeing that the users of the API would not be paying for the content but more from the convenience and possibilities provided by the API. Furthermore, done this way Audio Commons would be in line with the core principles of CC as the content would be provided free of charge within the limitations of the license used for the content. A somewhat more challenging issue can arise from connecting the API to the marketplace that would enable the purchase of additional rights to content or content hosted by content providers. In other words, for this to function users of the API should be able to configure the API in a manner that it would also provide content they have paid to have the additional rights for. Combined with the marketplace, and under this considerations, a freemium model for the API service would be suggested, so different customers could be charged for different type of uses; for example, allowing individual users to access ACE content or tools within a limit for free.

As noted, the marketplace model would be based on selling the content of content providers but also could be used for selling additional rights for CC-licensed content for those interested. As noted above, in this case the idea would be not so much of actually selling content, which might be cumbersome from the perspective of CC. Instead, the marketplace would enable selling additional rights to audio content that had been uploaded into the site and licensed under particular CC licenses such as BY-NC for example. The revenue from this could be shared between the creators of the content while Audio Commons could take a small share of this to cover its costs. One risk regarding the marketplace would still exist though regarding more restrictive rights. The possibility of selling additional rights on the platform might lead content creators to choose more restrictive license types over the more permissive ones, which might have detrimental impact to the community character of ACE.

To avoid this, the API and the marketplace applications could be provided from separate locations, which would mark their distinctiveness from the wiki-like Audio Commons community site. The arrangement would share some commonalities with certain open source business models, in which the payment comes from the services and support that have been built around the open source project that still retains its open source character. This would also enable the integration of the other tools developed under ACE and the monetization of those in order to make Audio Commons financially sustainable. What is more, the approach of keeping content and the services and tools in separate locations would offer a way to develop further the emerging businesses models identified in the Deliverable 3.4 in relation to the machine-to-machine, human-to-machine and human-to-human models.



7 Conclusions

In this deliverable we evaluated further the business models presented in the Deliverable 3.4 for the Audio Commons Ecosystem (ACE) and particularly looked at their benefits and challenges taking into account the specific characteristics of ACE and with that the Creative Commons (CC) licensing framework. We provided recommendations regarding the form ACE could take and ways to incorporate the three business models into this format. Overall, turning ACE into a sustainable entity requires the understanding of the core principles of CC, which impact the ways business models are to be deployed under ACE.

Regarding the recommendations provided in this deliverable, we highlighted the need to provide services that are built on top of CC-licensed audio content and to approach the selling of content from the perspective of enabling the sales of additional rights to the content. The financial sustainability could be reached through a combination of donations, marketplace and services that provide and facilitate the interactions that take place between parties interested in using CC-licensed audio content and the content creators themselves.



8 References

Arend, Richard J. "The business model: Present and future—beyond a skeumorph." *Strategic Organization* 11.4 (2013): 390-402.

Baden-Fuller, Charles, and Mary S. Morgan. "Business models as models." *Long range planning* 43.2 (2010): 156-171.

Magretta, Joan. "Why business models matter." (2002): 86-92.

Shafer, Scott M., H. Jeff Smith, and Jane C. Linder. "The power of business models." *Business horizons* 48.3 (2005): 199-207.

Teece, David J. "Business models, business strategy and innovation." *Long range planning* 43.2 (2010): 172-194.

Zott, Christoph, Raphael Amit, and Lorenzo Massa. "The business model: recent developments and future research." *Journal of management* 37.4 (2011): 1019-1042.

