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Creative Commons Licensing and Relations of Production in the Sound Industry

Abstract: This article describes current production practices taking place in the sound industry, concentrating on the process of implementation and popularization of Creative Commons. Existing studies have considered the role of classical copyright in the creative industries, pointing at its functions in regulating the creative process, but so far have not extensively examined its relationship to alternative intellectual property frameworks. This paper uses the empirical example of the largest sound repository to describe the change occurring in cultural production. The article posits that mass popularization of Creative Commons provokes transformation within three key and intersecting areas of production, including the subjects of property (creators), objects of property (creations) and articulation of usage (source information). The paper theoretically frames and expands our understanding of change provoked by open licensing and its relationship to the creative production process.

Keywords: Creative Commons, creative labor, intellectual protection, creative industries, popular music

Introduction

In recent years, researchers have examined the relationship between artistic production practices and the intellectual protection of cultural goods. According to the literature, technological change, connected to digitalization and the greater circulation of creative products, has led to shifting patterns in how copyright is approached (Berry 2008; Boldrin and Levine 2008; Hardy 2012). The last decades have brought about movements aimed at 'opening up' copyright and enabling the freer exchange of cultural products. Classic copyright law has traditionally been used to prevent the reproduction, adaptation or distribution of content without the copyright owner's authorization in order to foster capital accumulation. In response, a proliferation of communities has responded to the limitations posed by traditional copyright. At the forefront of this response was free/libre open source software (F/LOSS) licensing. The literature has addressed these changes in the software context (e.g., Dusollier 2006; Holtgrewe and Werle 2001), but only partial perspectives have been developed on the actual influence of these shifts on intellectual property law and artistic production. This paper introduces a theoretical perspective to the shifts provoked by alternative approaching of copyright in creative industries by examining a framework intended to open cultural production: the Creative Commons (CC). The CC framework proposes an alternative approach to intellectual property protection, giving it an important role in resisting current copyright practice, while enabling new models of collaboration.

The audio industry, which encompasses the production and distribution of musical and non-musical sound, allows this article to critically study the outcomes of the CC framework, in light of its relationship to the cultural production and music industry regulated by traditional copyright. CC has been adopted by creators, publishers and public institutions; it is estimated that in 2015 more than 1.1 billion works were licensed under the framework, and that those works were accessed more than 136 billion times (Creative Commons 2015). This paper takes the stance that the popularization of CC has its roots in technological change. The practice of cultural production is interwoven with the spread of new technologies, which have hindered the intellectual property regime (Caroll 2006; Goss 2007). Consequently, since the 1950s, this process has been led by the development of new types of recording equipment and technological innovations in the audio industry, reflecting the broader convergence of media and audiences (Jachimowski 2012; Jenkins and Ito 2015). These changes introduced a shift in the way consumers and producers treated intellectual property, as consumers, intentionally or unintentionally, began violating copyright by sharing work without the producer's permission.

Creative Commons (CC) responds not only to the restrictiveness and extensive control of the intellectual property regime, but also to the reorganization of the ways in which cultural production occurs. This study complements the literature by arguing that CC provides the means to resist these conditions within the creative industries, depicting it as an alternative path to the market position of music corporations, copyright intermediaries, and copyright collecting societies (Berry 2008; Hess 2007; Holtgrewe and Werle 2001; Juris 2005; Tkacz 2014).

The contribution of this article is twofold. Much of the empirical research on copyright protection has concentrated either on actions embedded in mainstream music markets (Fredriksson 2014; McLeod and DiCola 2011) or on underground scenes that have ignored the regulations (Marshall 2004, 2005). This work examines a case of licensing, which has not been extensively examined in creative industries, and which occupies a middle ground between both types of copyright. In addition, this case argues for the support of the theoretical position of uneven capital accumulation (Harvey 1990). Copyright practices rely on dominant industry actors, such as major record labels and collecting societies, which depend on copyright, influence its modification and concentrate power and control in the industry. Even though digitalization has changed their position, it still pushes the decline of creators' entitlements such as wages, social benefits or job security while dispossessing creators from ownership and control over their own work. As this case illustrates, CC offers an alternative path, one with no direct dependence on traditional institutions of copyright.

Historical Development of Copyright Regime in the Creative Industries

In sociology and social analysis, copyright law has been understood as a social construct created to secure rights to creative works and the economic regulation of their reproduction in a capitalist society. Copyright law was initially intended to protect creators, to prevent exploitation of their works by commercial distributors, and to stop plagiarism by other artists. Its creation coincided with industrialization, which influenced the creative

industries with revolutionary inventions such as the machine press and phonograph. These innovations were ground-breaking. For instance music, or more broadly sound, has been decontextualized and made into 'an immutable mobile' (Latour 1986) when it was disconnected for the first time from local environments and oral cultures, thus becoming a fictitious commodity inserted onto the global market. This market for copyright produced adverse effects, as it propelled the commodification of art, while constraining creative production and limiting the scope of material that artists may borrow. Turning creative products into fictitious commodities has been conceptualized since Walter Benjamin described the deep consequences of new technologies of mechanical reproduction of art, such as the loss of aura, authority, originality and authenticity of a work of art (Benjamin 1944). This signified for Benjamin the process of revolutionary inference into perception of art, opening it for politicization and introducing new modes of art appreciation. Accompanying these processes were changes in the ways in which cultural goods have been produced.

Adorno and Horkheimer (1979) showed the deterministic and threatening influence of the market on the creative industries (Adorno and Horkheimer 1979), which changed the cultural products themselves as well as in the tastes and orientations of their consumers. The commodification of art has always been controversial, and copyright provided a frame for the trade in cultural works (Boldrin and Levine 2002, 2008). The sociological debate produced a range of arguments on the outcomes of art commodification, for example showing how the market influences the type and quality of artistic goods (Griswold 1981). One important result of these enquiries has been the assertion of the deterministic nature of law and the regulations shaping cultural expressions. For instance, Dowd (2003) discusses a small number of works that demonstrate the socioeconomic functions of copyright by showing how the expiry of patents in sound recording technology brought a new genre of soul music.

Today's sound industry is dominated by powerful actors that solidified their activity through copyright. Their development is tied to the increasing commodification of intellectual property, which changed the legal regulations of global copyright law and increased the power of copyright holders at the cost of creators (Graber and Nenova 2008; Boyle 2004). This development favored powerful intermediaries, whose business models have relied on marketization and speculation of copyright (Fredriksson 2014; McLeod and DiCola 2011; Scherzinger 2014). In effect, since the early 20th century, major corporations have controlled the global music market (Negus 1998; Rayna and Striukova 2009) and generated profits through the slow industrialization of popular music (Firth 1987; Zagorski-Thomas 2016) and the standardization of music products (Firth 2001; Hirsch 1972; Weber 1958). As a result, the creative industry has become increasingly globalized and homogenous, and music labels shaped the kind of cultural goods produced and intellectual protection policy itself. These processes were theorized as a part of the process of capitalist accumulation (Coriat and Weinstein 2012; Fligstein 1990) and regulated by market logic (Griswold 1981).

In the literature, however, there has been an increasing emphasis on the discrepancy between regulations and the directions of cultural production. A large number of arguments underscored the legal system's inability to prevent the unauthorized use and reuse of cultural products (Marshall 2005; McLeod and DiCola 2011). Further arguments against the legitimacy of copyright regulations have been brought up in the context of technological development. Since the late 1960s, the popularization of home recording equipment has transformed the ways in which music is consumed and produced (Lopes 1992). Collage-like production techniques became available to anyone who possessed a recording system. This shift brought on problematic applications of copyright, for example in the context of bootlegging and copying music at home (Marshall 2004, 2005). Consequently, creators have changed their ways of production, adopting new remixed techniques that relied on other copyright-protected works (Rodgers 2003) to create sample-based musical genres. As sampling needs to be authorized for commercial circulation, composition needs to be accompanied with legal negotiations, which again proved constraining for artistic production (McLeod and DiCola 2011). The result has been a growing resistance.

The underground music scene then emerged and practices such as bootlegging have been identified as movements against powerful copyright holders. These movements are driven by 'people locating their experiences and their selves against the commodification of popular music' (Neumann and Simpson 1997: 323). As Lee Marshall shows, even though these underground practices clash with copyright law, they were not necessarily harmful to the music industry (Marshall 2004). The resistance was met with strong counteractions from music labels, preventing unauthorised reproduction, and by developing DRM technologies to control the use, modification, and distribution of copyrighted works (Sinha, Machado and Sellman 2010).

These tensions have increased with digitalization, and new digital formats and sharing platforms burst onto the scene (Berry 2008; Juris 2005; Tkacz 2014), creating new cultures of participation (Jenkins and Ito 2015), based on growing media convergence (Jachimowski 2012). In the sound context, this convergence came in the storage and consumption of music with the development of easily transferable digital formats such as MP3 (Haring 2000) and digital distribution channels (Hardy 2012). With the availability of broadband internet, copying and sharing music became even simpler (Kretschmer et al. 2001).

The creation of peer-to-peer sharing technology has post another challenge to copyright protection (Jones and Lenhart 2004; Alexander 2002; Cooper and Harrison 2001). The literature on this intersection of technology and copyright has concentrated on the implications of digital distribution on industry practices, including copyright management (McCourt and Burkart 2003; Styven 2007), changing consumption habits (Molteni and Ordanini 2003), or emerging business models (Fox 2004; Vaccaro and Cohn 2004). Studies have emphasized both the success and power of major labels (Kretschmer et al. 2001; Young and Collins 2010) and the increasing power of smaller ones (Furgason 2009). Research has also theorized on digital commodities (Poster 2004) or explained the influence of digitalisation on the generation of economic value (Oberholzer-Gee and Strumpf 2007). In many ways studies on internet piracy understand it as a political movement aimed at restoring more democratic ways of private music consumption and challenging the existing copyright institutions (Hann 2007).

The article incorporates certain developments in social theory, and in cultural and legal studies, to posit the outcomes of the popularization of Creative Commons. By drawing on empirical research, it analyses how CC stimulates the change in cultural production by

inscribing it into a broader trend of cultural production based on collage techniques, also known as copy-paste or remix cultures. I argue that the dynamic development of CC is a response to the commodifying nature of the media and creative industries; at the same time, is an attempt to free creativity from constraints imposed by copyright intermediaries. This movement plays a significant role in transforming the way cultural creators are handled on the market and understood by artists and the public. This paper identifies changes in select aspects of creative production.

Studying Creative Commons: The Context and Methodology of Research

The Creative Commons framework offers an alternative to traditional copyright practices by providing simple licensing tools, based on 'building "a layer of reasonable copyright" on top of existing law' (Goss 2007: 977). While traditional copyright law creates the default rule of "All Rights Reserved," making permission necessary for every use of a work, CC facilitates an environment in which "Some Rights Reserved" or "No Rights Reserved" become the norm. In other words, CC seeks to "use copyright to authorize (rather than inhibit) copying, distribution, modification and reuse of software and other copyrighted works" (Dusollier 2006: 274). In nearly all cases, the content remains under the ownership of the original creator who is permitted to charge for additional permissions, like commercial application of the material. In contrast, the CC license allows only noncommercial usage.

The findings of this paper are based on qualitative research on the relationship of the CC and cultural production. The paper concentrates on the audio industry, which encompasses both musical and non-musical sound. This part of the creative industries has undergone significant changes, based on increasing digitalization and widening use of CC content. My study used the principles of interpretative research (Orlikowski 2000) as a qualitative approach is particularly useful to understand how creative production changes and the role of CC. To accomplish this, my article draws from an original study of the largest CC audio repository, Freesound, which relies on CC content to facilitate exchange of content and services among creators, tool developers and industry actors. It is an explanatory case study that allows for the evaluation of how theories of relationships apply to creative production (Yin 2002). To increase the validity of the research findings, this study is complemented by numerous data sources, including secondary data analysis, in-depth interviews with creators and expert interviews.

This study is based on interviews with 17 European creators from a variety of music/sound genres and professional levels. Creators were recruited by using snowball sampling and referrals. Interviews were divided into two parts. The first part was open. Interviewees were asked to introduce themselves and talk about their work, narrating their personal and professional trajectory to contextualize their CC involvement. In the second part, they completed a semi-structured questionnaire with open answers. The research scenario was crafted around three key domains regulated by property law, and where the Creative Commons framework model incites transformation: (1) influencing the way in which subjects of law and labor operate (creators); (2) affecting the type and

usage of objects of law and labor (creative products), and (3) examining the shifts in the role of rights of usage, looking at the elements such as source information, patterns of collaboration and ways of marketization. Secondary data analysis includes legal documents and Internet forum discussions between CC activists and content creators. An analysis of these documents provides information about the changes in the creative process and its public image.

In the empirical section, following this part, I outline the changes driven by CC, especially the key dimensions of the production that have been strongly influenced by CC, including the subjects of property (creators), objects of property (creations) and articulation of usage (source information).

Subjects of Property

It is about the actual commitment to music. (...) not only there is so much data to be reused and within reach [under CC licence] but also, in particular, all that data has an address that you can use [for instance to contact the original author]. Most owners of that data are open to collaboration, open to making new arrangements, adjustments, and look forward to new projects. But even if they don't respond, their data is there to be used. This is what makes it worth it all. (...) Before [the CC] it was all impossible. All sound needed to be cleared or produced from scratch. (Sound engineer, UK)

The creative production process is the first to undergo transformation motived by the CC. As the excerpt illustrates, it relies both on the accessibility of production components and the increasing proximity between creators that share the ideal of collaboration. Creative production has traditionally involved interaction and collaboration, both between creators themselves, and between creators and their audiences (Toynbee 2016). As described in the literature review, this interaction has been facilitated by the development of technology, and, as the passage illustrates, CC not only provides a legal framework for reusage but also integrates works that are available for use by other creators. The literature recognizes "the networked computer music instrument," with the Internet's central role in allowing individual artists to access, shape and share recordings among themselves (Makelberge 2012). In this sense, computer technology changes the mode of production and distribution of content, also enabling collaborations among artists. In this context, CC facilitates access to cultural creations sanctioning the use, development and consumption of content, with no need for payment or negotiation. In other words, CC licensing offers a foundation for a new type of organization of networked creative production as material is not tied to any webpage and can be legally distributed across platforms as long as the terms of the license are respected.

The next two passages exemplify how creative production relies on collaborative relations enabled by the legal framework of CC, which mediates access to content and the availability of material, which reorganizes the production process.

The main issue has always been with [copyright] clearing. So many times it was such a painful failure. Last time we had an amazing [musical] intro, but it used this one sample which turned out to be impossible to clear (Music producer, France)

My music has always depended on authorization; you create using what you have, rather than what and how you want it to. The difference [that CC makes in sound production] is that it is all there to be picked up and with clear rules. However then, you struggle with finding the right piece. (Music producer, Hungary)

Creative Commons open a field of sharing and collaboration by extending collaborative relationships beyond interpersonal ones. Easy access to data transforms the form and nature of the creative process and the way an author perceives his/her own position, both in relation to other authors and the whole network. As a music producer in Poland noted in reference to the clarity of the permissions: 'you don't have to ask, you don't have to think, you just take it and put it in your track—everybody already agreed you can do it.' This process of creation generates data that can be used by every author who is willing to accept the terms of the license.

Open media licensing contributes to the evolving role of original copyright owners, who by choosing the open licensing frameworks make content available to potential re-creators. The licenses not only assert the copyright properties of the object, but also uniquely communicate the creator's openness to and readiness for virtual collaboration. In the classic copyright framework, artistic practice and license obligations are in opposition. Instead of creating barriers, the CC framework communicates both permissions and requirements. One of the artists interviewed for this project expressed his sense of belonging to a group: it is not only about a mention, CC licensing changes the game, and puts virtually everybody in touch with one another under the same flag (musician, Poland). One flag, in this case, expresses a shared idea of creative production, based on a commitment through product sharing and realized with the CC licensing.

That said, in some legal contexts, CC activity is excluded from the mainstream market, imposing limitations on the creators. This clash was most visible in Europe, where royalty-collecting societies and powerful copyright intermediaries, such as major record labels, often have a monopoly on representing signed artists and limiting their decision-making on their work, such as extending control over future creations and activity and preventing them from leaving that group of artists (Rochelandet 2013). Since sharing works using CC might undermine that control, collecting societies openly opposed the use of Creative Commons by the signed artists (Communia Association 2021).

On the European level there have been efforts to normalize the use of Creative Commons, including formal EU-level obligation of collecting societies to allow their members to decide with what license to release their works (EU Directive 2014/26/EU). The result of this legislation has been opening of societies to CC, but to the creators interviewed here, the approach of collecting societies remains incompatible with CC. In this context, interviewees express their understanding of the CC framework as a decision in favor of greater autonomy and independence, also because neither labels nor societies can guarantee any significant profits. For instance, a music producer who is not signed with a collecting society stated:

I doubt that my loops can bring me significant money through the [copyright] collecting society. Instead I prefer to share it and find my own way of making money on of it. (...) In the future I might actually start a musical project and self-publish. (Music producer, Poland)

Some creators evidently assume that they might be unable to monetise their niche products. As shown below, instead of hypothetical revenue from collecting societies, this creator values collaboration in CC networks, which means reusing CC-licensed sounds for electronic music composition:

The openness is the enabling factor for composition. By limiting myself to royalties, I would be dependent on sample clearing, which would probably either kill my workflow or my style. I definitely think that I am winning. (Music producer, Poland)

This producer purposefully seeks alternative paths to his music career, also committing to his own independence, taste and style, which in his view might not be compatible with traditional dynamics of the industry.

In the current concentration of both music market and internet communications, publishing using CC licensing offers some independence from the industry's powerful actors. Opening content instead of publishing it through traditional intermediaries causes controversy. Quite often CC-licensed products can become elements of larger commercial projects and services, sometimes posing challenges for the original authors of the works. The number of possibilities makes it impossible for the author to predict the direction and context in which the creative work might be used. This ambiguity could have both positive and negative effects. One of the most illustrative cases of this is the reuse of a CC-licensed picture of a teenager in Virgin Mobile's advertising campaign. The firm used a fragment of the work with the insulting caption, "Dump Your Pen Friend." The original picture had been taken by the teenager's youth pastor and uploaded to Flickr with a Creative Commons license that allowed its commercial use (Pletcher 2009). Many examples of reuse outlined by the respondents of this study describe very successful re-uses, such as using sound effects in blockbuster films. In these cases, this type of collaboration is an important professional step, as the author's name, download site and CC license type appear on the credit list. Networks thus enable new collaborations, only requiring that the original creator chooses the appropriate license.

Objects of Property

My track is never finished; it is an ongoing process. I love to get people involved and let them work on the material however they wish. The possibility of sharing on content hosting platforms is good. It makes other people work on music and upload it back, which is great. I think this is where music should be heading. (Music producer and DJ, Israel).

As the quote above demonstrates, protecting cultural objects with CC connects works to others under the same license and opens them up to new types of reconfigurations and modifications. The second aspect of the creative labor process concerns the objects of labor. My research suggests that open licensing creates "networked objects of creative production" that are shared and understood as a combination of original content and other objects from the network. Unlike other online forms of music composition, such as remote online improvisation between two musicians, networked objects are a unique form of collaboration, as the actions of the collaborators are not synchronized in time and there are no limits on the number and type of collaborating artists. Networked products are elements of proprietary interrelations based on the disconnection of creative works from a single artist that are inserted onto sharing platforms, therefore becoming a potential element of a future work for other authors. Co-creation occurs in a democratic and autonomous manner giving the potentially involved parties time, freedom and autonomy only and uniquely

through the object. Objects are a medium of collaboration, decontextualized, positioned against and combined with other objects as well as opened to unregulated, asynchronous collaboration. As one of the creators put it, participating in Creative Commons signifies agreeing to this form of reciprocity:

It becomes apparent that by displaying my music I am open to all forms, such as mashup or remix. It is impossible to be part of the game and oppose remixing or the freedom to share (Composer, USA).

Applying any CC license to a sound inputs a work into the system with a set of requirements, for instance that any resulting copies or adaptations are bound by the same licensing framework, or that the works cannot be used commercially. This mechanism propels growth and spread of content, based on continuous reproduction and progressive growth. New objects are either new creations or made from existing objects through recreation. This way collaboration can be asynchronous and reliant on incorporation of others' work through musical collage or remix:

When I sampled [from non-CC sources], I used to think about it as prototyping: I would take a sample and paste it to my DAW [digital audio workstation] but with the intention to replace it with content that I can use. (...) I started to open to CC content due to the fact that it's just easier and gives less possibilities, but realistically also allows for publishing the work. This way I also know that it is important to grow the commons [refers to CC content] (music producer, Spain)

This creator outlines how CC provides him with enough material for production, without the worry that it would be impossible to publish the content. At the same time, the creator specifies that it is necessary to expand the content available for the others, thinking of it as of common good.

Open licensing also broadens the availability of different types of objects available to artists. Prior to open licensing, creators and composers looking for sound samples for their projects either relied on stock libraries, where they could buy samples for a fee, or sound effects and guitar riffs recorded by themselves. Popularization of open media has completely changed the availability of sound samples. Media components, such as singular loops, beats or sound effects, previously with a low presence on the market, were included into the networked production, representing an alternative to closed databases. This not only increased the amount of sound at the disposal of creators, but also created a new market for trading and exchanging by offering new ways of commodification and collaboration. As an artist specializing in this type of sound explains:

The new scope opens up the market, allowing commercial activity in new fields, such as computer gaming (...) it also opens it up for use of multiple sounds, not limiting it to a few agencies. It might sound ridiculous, but this means that many people don't have to go out to record the sound of wind. Before, if they did not want to buy it, they could only do it themselves. (Computer gaming sound artist, UK)

Some sound artists solely work by providing samples for music composition or multimedia. Groups specializing in field recordings, called foleys, consider their products raw material, which other creators can use. Considering this a discipline of growing significance, with CC their objects obtained a legal status allowing greater freedom to share, at the same time regulating the possibilities of their reusage. Objects entering

creative networks have become open-ended raw materials that can be put into new contexts, combined with other creative products or processed by using sound effects.

The nature of objects in networked creative production inverts the creative process. Instead of relying on availability, price and type of sound provided by intermediaries, Creative Commons framework alleviates copyright negotiation costs, which lies at the heart of the resistance argument regarding F/OSS, which was described in the literature review. Having over a billion of objects at their disposal, problems of creators shift into another dimension, navigating and finding suitable licensed objects. All creators interviewed for this project agreed that one of the biggest challenges is finding the right object. In response to this difficulty, CC activists and hosting platforms include descriptions of the sound files, develop technologies that filter sound and include CC-licensed media in popular search engines. In the case of open sound, objects thus not only represent sound, but also include a description created by the authors and filtering scripts that create tags that help to catalogue the objects. My research suggests that this additional information will be highly significant for future machine-based organization of sound within creative networks.

Rights of Usage

Under the traditional intellectual property framework, collaborations mediated by samples or recordings were realized through market transactions. By opening up the content, Creative Commons has changed the practice by simplifying creator-to-creator transactions by including a set of basic requirements, combined into six forms of licensing: Attribution (BY)—to credit the original creator; ShareAlike (SA)—to license derivative work under identical license; NoDervs—prohibiting derivative work; and NonCommercial (NC)—prohibiting commercial usage of content. Additionally, the CC framework gives a possibility of using works with no requirements (CC-0 license). This clarity of permissions and removal of negotiations responds to the practice of creators, described below.

Normally when you start your adventure [with music-making], you first work on samples that you really like. So you choose classics, like Funkadelic, James Brown. But then once you start progressing, you realise you are in a trap. There is no way you can clear it all (...) instead, you start compromising, work on what's there. (Music producer, UK)

The passage describes how the CC framework has responded to the issues that the sound industry faces: problems with obtaining rights of use. Three out of six CC licences require only one type of compensation for the original creator, attribution, which requires specifying the name of the author of the work and the source of content and displaying this information in the credits. Every time a work licensed under CC is reused, attribution sanctions the right of usage.

Attribution is the central mechanism of Creative Commons that protects the creators' interest. For the artists, attribution is a tool for reputation building, and a mechanism to facilitate their work. Interviewed artists perceive the reuse of their work as a positive phenomenon, often understanding copyright restrictions as an outdated concept. As a music produced in Poland emphasized, 'Attribution works in a similar way to credits; I enjoy to

hear melodies that I once made in entirely new tracks. This is my trademark'. Another creator outlines the expanding scope of his own popularization through attribution:

reusage broadens my audience, usually in a way I would never think of. Attribution makes sure that I am somehow recognized. It is not really about being remixed or covered, not like in the old times. This time [under CC licensing] it is almost like I made part of somebody else's track, like I built the base of it, or some decorative elements. I have to get recognition, that's the absolute minimum I can get as a co-creator. (Music producer, France)

In both cases the creators are professional music producers for whom the perceived gain from free reuse is greater than using intermediaries to negotiate the transaction. Commercialization of creations occurs through different channels: artists provide composition, mixing and mastering services, or establish collaborations with other artists. Increasingly, they prefer to gain recognition from availability.

In those times it is not important to sell your tracks unless you have the whole promotional machinery of a big label behind you. These days you make money on concerts, merch, anything but music. (Music producer, Sweden)

Similarly, creators recording sound effects emphasize that although the monetization of sound might be problematic, gaining recognition allows for new types of collaborations and projects, possibly commercial. In both cases, attribution is a guiding mechanism of building recognition, preserving the work's source and connecting the author to the product.

When one violates this right of usage, for instance by ignoring the attribution requirement, the result might be legal sanctions regulated by property law. Creative Commons builds on intellectual property law by expanding it, providing standardized contracts, and promoting its recognition. In so doing, it fosters adaptation of frameworks and recognition of associated symbols and codes (such as names of licenses, logo of organizations). All works created under a CC license remain under copyright protection. When there is a copyright dispute, for example if a creator used a work licensed under CC-NC (non-commercial) for a commercial purpose, the original owner of the work can use all of the instruments provided by standard copyright law to pursue a legal case. However, enforcement of CC licenses is weaker, especially when compared to closed works managed by external organizations. That said, the community around CC is guided by the principles of commonality and violations of CC frameworks occur rarely and are quite quickly removed from circulation. It is safe to assert that CC adds and broadens existing copyright law and does not counteract or neglect it.

Creators face problems in connection to enforcing attribution, for instance being notified by finding out that their sound is in commercial productions, despite the requirements in the license.

[anonymised name of an American comedian] used one of my anime sound effects in one of his episodes. Actually, two of his episodes and I was like freaking out because I was watching it on TV and I heard my sound and here's like 'what was that?' It was like, it had the same delay and everything. So I knew it was my sound. It just blew my mind. (...) It was like, it had the same delay and everything. So I knew it was my sound. It just blew my mind. (American producer)

This quote raises another problem: the problems with the protection and enforcement of a CC license. The respondents who have witnessed the violation shared stories that they tried to intervene, for example asking TV producers for attribution but they usually received

no response or were offered a 'small compensation that was a couple of hundred bucks' (UK music producer whose content was used in an American TV series). The interviewed creators resigned from any form of mitigation due to financial and time-related constraints.

Commercial actors face problems using the CC content that permits commercial usage (does not contain NC requirement). One of the creators argued that in his experience 'there is no trust in content because there is no moderation and anyone can upload anything using CC' (musician, Poland). This argument can be interpreted as risk management strategy, to minimize the chances of potential infringement, for example if otherwise protected work was illegally uploaded under a CC license. The interviewees have outlined that in this context their efforts are often aimed at building their credibility through regular uploads. For instance: "my profile is 11 years old, I have content that is pretty uniform, I doubt that anyone could think I just ripped it from somewhere" (DJ Israel). In this context, there has been debates about establishing a system of automatized attribution, similar to scholarly citation, thus making re-used material easier to track (Creative Commons 2021).

Attribution ties a work to the respective creator as well as future creators to that work and provides a mechanism for communicating this connection. Uniquely enough, attribution signifies that each portion of data is not anonymous and allows for tracking. A potential collaborator, fan or client could approach a creator in a direct way, for instance to pay for a custom-made composition or re-arrangement of a musical track. For example, a Russian producer describes his experience: (...) so all of a sudden I learn that seven of my sound effects are part of a game that is on Steam. (...) They put me in the credits and somehow I really like their aesthetic (...) (techno music producer, Russia). The described situation later led to permanent collaboration with the creator, who currently works on sound in two of the studio's projects. Similar stories of building a professional trajectory through exposure of content, as well as user profile were shared by other users who through their profiles got offers to collaborate or sell content with no restrictions to commercial actors.

Conclusion

This paper has examined the changes in copyright practice within the creative industries. Based on an instance of relations of production in the sound industry it has shown that Creative Commons challenges traditional ways of production and collaboration embedded in traditional copyright, which has shaped and dominated the industry. This reorientation has its roots in a wholesale shift caused by the rapid growth of technological culture and the power of new technologies, which results in an abundance of content, the ambiguous situation of licensing of online material, and very few standards for online rights management. CC responds to this situation by normalizing the legal status of works and facilitating their co-creation and exchange.

The theoretical argument of this paper relies on the assumption that CC emerged as closely tied to the creative production and changed the way cultural production occurs, modifying existing ways of collaboration and creating a large network that allows for exchange of objects. The first change occurred in the domain of authorship. Instead of

creating barriers, as in the case of copyright, CC opened possibilities of easy access to cultural creations giving way to the specific model of networked cultural production. This model of distribution provided a response to the popularity of composition techniques based on mixing and modifying existing works. Creators producing sample-based sound were given an important legal tool for sampling and remixing content that they do not own, a so they did not require copyright clearance. The contribution of CC to this new organization has not been previously conceptualized.

In addition, the change provoked by CC has shifted the status of creative products, the objects of labor. Opening them up to the public has created a set of objects which could become available to an unlimited number of users who follow the terms of the license. These types of objects under classical copyright regime were either sold as niche products or excluded from the market and thus not easily accessible for creative work. Having millions of objects available has influenced the ways in which creative production occurs, replacing permission seeking with content seeking and filtering, in parallel to the popularization of licensing which has increased the importance of metadata and annotation.

Finally, I mentioned the mechanism of attribution. I exemplified how attribution is tied to property law, and violations could be sanctioned in courts. However, instead of copyright institutions, creators emphasized the role of trust and community moderation. Instead of looking for breaches of the attribution requirement, creators concentrated on positive outcomes. My research has shown that for many artists this mechanism is an important vehicle for reputation-building and the tracking of content usage. Even though free content leads to increased flexibility in the creative process, it also is useful for establishing collaborations.

The study has important implications for further research in this area. The findings concerning the importance of CC in the creative labor process need further examination. It is very likely that it can be best uncovered through online participant observation, perhaps based on online tracking of content reusage and studies of co-authorship within existing creative networks. It is necessary to learn about the transformations in other creative industries as well as in domains such as computer programming, as the changes that they undergo also require networked forms of work. These contexts and the interrelated production processes and property law demand more investigation and scholarship.

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