

Open public collaborative creation: a new archetype of authorship?

1. Introduction

The collaborative creation model enjoys a position of significance within mankind's cultural creation narrative. It is embedded within our folkloric tradition of storytelling and is also visible in experimental and populist artistic movements.¹ In a general sense, collaborative creation refers to a creation process within which a plurality of persons engage in the production of intellectual or informational content by sharing and combining their creative and informational resources, skills and knowledge.²

Within the existing copyright law framework with its individualistic focus and tendency to conceptualize the author as a romantic solitary genius³, the collaborative creation model has been relegated to a position of secondary importance. Nevertheless, the advent of the Internet and advancements in digital technology have led to a re-assertion of collaborative creation as a dominant model in the production of cultural content. In recent years, there has been an upsurge of creation projects that profit from the possibilities for remote collaboration and networking afforded by the new technological infrastructure. Crowd-sourcing⁴, remixing and mash-ups are examples of such new forms of collaborative creation. However, the question arises whether copyright law, as the default legal regime that regulates legal entitlements over intellectual expression, is able to adequately provide for these innovative forms of collaborative creation.

For a considerable period of time, the notion of authorship in copyright law has been subject to scrutiny on the grounds that it fails to adequately recognize and provide for new forms of authorship that have emerged within the digital humanities. In this article I focus on the inability of copyright law's notion of collaborative authorship to address a new form of collaborative

¹ For example, experimental art movements such as Dadaism and more populist movements such as the appropriation art movement, pop-art movement extensively use the collaborative creation model. See MoMA Learning, 'Dada' (MoMA) <www.moma.org/learn/moma_learning/themes/dada/artistic-collaboration> accessed 2 February 2018.

² See LM Camarinha-Matos and H Afsarmanesh, 'Collaborative Networks: Value Creation in a Knowledge Society', proceedings of PROLAMAT IFIP Int. Conf. On Knowledge Enterprise, China (2006) 3 <www.researchgate.net/publication/237142495_Collaborative_networks_Value_creation_in_a_knowledge_society_invited_keynote_paper> accessed 2 February 2018.

³ Jaszi and Woodmansee are the proponents of the theory that, the traditional notion of authorship in copyright law is based on the romantic conception of the author as a solitary genius who creates intellectual content flowing from his own personal inspiration and devoid of external influences. See Martha Woodmansee, 'The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the 'Author'' 17 *Eighteenth-Century Studies* 425; Peter Jaszi, 'Toward a Theory of Copyright: The Metamorphoses of Authorship' [1991] *Duke Law Journal* 455.

⁴ For example the collaborative graphic art project entitled 'Sheep Market' launched by Aaron Koblin <www.aaronkoblin.com/work/thesheepmarket> accessed 2 February 2018.

creation that is gaining wide acceptance on digital media, which I refer to as ‘open public collaborative creation’ (OPCC). At present, the best known examples of the OPCC model of authorship are *Wikipedia*⁵ and free open-source software (FOSS) creation projects such as *VLC*⁶ and *Debian*⁷. I argue that the OPCC model gives rise to a new form of collaborative authorship that is inclusive and dynamic and as such, cannot be adequately captured or expressed within the traditional notion of collaborative authorship recognized by copyright law.

In part 2 of the article I define the OPCC model and describe it in relation to three creation projects that employ it for the production of literary and artistic content. In part 3, I construct a notion of OPCC authorship and in part 4, I examine the extent to which the existing notion of collaborative authorship in copyright law is able to capture and accommodate this new archetype of authorship. In part 5, I attempt to identify the main points of divergence between these two notions of authorship. The objective of this article is to present OPCC authorship as a new archetype of authorship that cannot be adequately captured within the existing notion of collaborative authorship in copyright law. Nonetheless, it also engages in a brief exploration as to the possibility of revising the existing exclusivity based conceptual framework of copyright law in order to enable it to accommodate the notion of OPCC authorship.

2. The OPCC model

I define OPCC as, creation taking place through the contributions of a multiplicity of persons (contributors) under a model of sequential innovation, and resulting in the creation of a literary, artistic or scientific work which remains in a continuous state of change and development over an undefined period of time.

The term ‘work’ is used in the context of copyright law to denote that the OPCC process usually culminates in the production of intellectual content that would qualify for copyright protection. The openness of the model, which will be elaborated in more detail below, signifies that the creation process is open to participation by members of the public, as opposed to being limited to members of a closed group of persons.

It is noted that, the OPCC model closely corresponds to von Hippel’s model of ‘open collaborative innovation’ (OCI) that has been defined as development projects in which multiple users collaborate and contribute for free and openly share what they develop.⁸ However, the fact that

⁵ Wikipedia: the free encyclopedia <<https://en.wikipedia.org/wiki/Wikipedia>> accessed 2 February 2018.

⁶ VLC media player <<http://www.videolan.org/vlc/>> accessed 2 February 2018.

⁷ Debian operating system <<https://www.debian.org/intro/about.en.html>> accessed 2 February 2018.

⁸ Eric von Hippel, ‘Definition of open collaborative innovation’ (*Financial Times*) <<http://lexicon.ft.com/Term?term=open-collaborative-innovation>> accessed 2 February 2018; See also Carliss Y Baldwin and Eric A von Hippel, ‘Modeling a Paradigm Shift: From Producer Innovation to User and Open Collaborative Innovation’ <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1502864> accessed 2 February 2018.

this concept has been formulated with reference to innovation economics, and the vague terms in which it has defined, makes it unsuitable as a concept on which a legal analysis could be founded. On the other hand, my definition of the OPCC model is designed to deal specifically with the production of creative content that will come within the framework of copyright law as opposed to innovations taking place in the spheres of patent law or the law of industrial design. Therefore, it is possible to describe OPCC as a genus of the broader notion of OCI.

The following descriptions of three creation projects that employ(ed) the OPCC model in the creation of literary and artistic content serves to better illustrate its practical workings within the sphere of digital humanities.

a. Wikipedia

Commonly referred to as the free-encyclopedia, *Wikipedia* is a free-content, free-access encyclopedia supported by the non-profit *Wikimedia Foundation*. The Foundation provides a publicly accessible Internet platform and an array of software tools that enable individuals from across the world to collaborate in the creation of encyclopedia articles under an OPCC model. The articles, which qualify for copyright protection as literary works are made available to the public under a *Creative Commons-Attribution-ShareAlike 3.0 unported* (CC-BY-SA) license.

Participation in the creation process is open to any member of the public who agrees to abide by the terms and conditions of the CC license as well as the normative guidelines that apply to the platform. Contributors to the OPCC work are loosely organized into a creator community that can be categorized as an epistemic community, the members of which are brought together by a social consciousness to belong to a group, but nevertheless retain their individuality within the community.⁹ The normative guidelines (which are adopted by the community through consensus), are administered and enforced by a group of ‘administrators’ who are themselves contributors in good standing, elected by their peers. However, the powers of these administrators are limited to aspects of community administration and do not allow them to exercise creative control over the contributions made to the OPCC work. Thus, contributors enjoy a high degree of creative autonomy in determining the nature and scope of their contributions.

As any contribution made to the *Wikipedia* platform is subject to a CC-BY-SA license, any person has the ability to contribute content to an article by adding to, modifying, adapting and even overwriting or deleting content created by previous contributors. Apart from this, they can also engage in editorial functions, which although not directly resulting in the creation of intellectual content nevertheless play an important role in shaping the nature and form of the intellectual content. Discussion forums enable contributors to

⁹ Mélanie Clément-Fontaine, ‘Communauté Epistémique (Numerique) (Approche Juridique)’ in Marie Cornu, Fabienne Orsi and Judith Rochfeld (eds), *Dictionnaire des Biens communs* (PUF 2017) 237-238.

discuss and deliberate on aspects of the creation process. However, it appears that these are mainly used for discussions relating to technical matters and the resolution of disputes as opposed to issues that directly relate to the formulation of the original expression that is to be incorporated within a *Wikipedia* article.

*b. This Exquisite Forest*¹⁰

This Exquisite Forest is a collaborative graphic art project conceived by artists Chris Milk and Aaron Koblin and produced by the Tate Modern in London and the Google Data Arts team. It used the OPCC model to create graphic animations exploring specific themes that built upon each other, along a chain of sequential innovation.

The object of the project was to use graphic art as a medium for interactive storytelling and for the creation of fluid visual narratives. Several artists from the Tate created initial (so-called 'seed') animations based on specific themes and provided instructions as to how the theme could be explored and developed. Members of the public were also allowed to create their own seed animations. Succeeding contributors were invited to interpret and build upon those seed animations, according to the instructions set down by the initial artist, although compliance with these instructions was not considered mandatory. Contributors were allowed to branch-off each other's contributions, similar to the way in which collaborators branch-off computer code developed by others in the creation of FOSS programs.

While contributors enjoyed a high degree of creative autonomy and freedom in developing upon the existing content, their contributions were curated by the producers of the project for appropriateness and quality. The producers reserved the right to not include certain submissions in the common work or to remove certain submissions from the platform. Although the producers closed the platform to new contributions in 2014, the artistic content is made available on the project platform under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 unported (*CC-BY-NC-SA*) license. This means that it is possible for members of the public to continue to use, develop and to continue the OPCC process, although this would have to take place outside of the official platform. The creator community of *This Exquisite Forest* project was more diffused in comparison with *Wikipedia*. This could be attributed to an absence of discussion forums that could be used by contributors to interact outside of the creation process as well as the more centralized governance framework that was administered and enforced by the project's producers.

¹⁰ *This Exquisite Forest* <www.exquisiteforest.com/concept> accessed February 2, 2018. The project was operative from July, 2012 to August, 2014.

c. *Folding Story*¹¹

The *Folding Story* project uses the OPCC model to allow members of the public to collaborate in the creation of fictional stories over an Internet platform. Each contributor writes a line or a paragraph of a story that is added to by other contributors in order to create a short story or fictional narrative. Unlike in *Wikipedia*, contributors are not able to overwrite or change a contribution made by a previous contributor. They are only permitted to add to and build upon previous contributions in order to continue the initial narrative. However, a substantial amount of creative autonomy is allowed in determining how the narrative is developed and it is possible to introduce significant changes to the theme plot and characters. Use and access of the content made available through the platform is made conditional upon the acceptance of and compliance with Terms of use and access, that have been drafted by the owners of the platform. Thus, consent to the Terms is implied through the fact of use and access. It is unclear whether these Terms could have the force of contract. It is more likely that they constitute a bare license to use and develop existing content in making one's own contribution.

The creator community is less strong and autonomous in comparison with *Wikipedia* which could once again be ascribed to the absence of a general discussion forum within which contributors could interact with each other outside of the creation process. Thus, interaction between contributors to *Folding Story* is limited to the act of creation itself (i.e. contributing expressive content to an existing narrative or initiating a new narrative). On the other hand, this accentuates the experimental nature of the creation process and makes it difficult to predict the direction in which a particular narrative may develop.

Based on the above descriptions of the OPCC model in practice, I identify four main characteristics of the model that are of relevance in constructing a notion of OPCC authorship, these characteristics are discussed below.

i. Openness

Openness is a term that is widely used both in law as well as in the field of innovation economics¹² and has been defined in various ways. However, openness in the context of the OPCC model refers to the minimization of restrictions attached to participation in the creation process and to the use of the intellectual content that is produced through that creation process.

¹¹ *Folding Story* < <http://foldingstory.com/>> accessed February 2, 2018.

¹² For example 'open' innovation' as described by Chesborough; Henry Chesborough 'The Era of Open Innovation' (2003) 44 MIT Sloan Management Review 35, 'open' access in the context of informational commons; Yochai Benkler, 'Open-Access and Information Commons' in Francesco Parisi (ed), *The Oxford Handbook of Law and Economics* (2017).

<<http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199684205.001.0001/oxfordhb-9780199684205-e-021?print=pdf>> accessed February 2, 2018.

Firstly, the OPCC process is 'open' to any member of the public who fulfills minimal formalities (e.g. free registration) or agrees to abide by the generally applicable terms and conditions of participation. Thus, the borders of the creator community are porous and there are minimal barriers to entry. Secondly, an OPCC work constitutes an 'open-resource' that can be accessed, used, adapted and modified by any person both within and outside the platform. In the case of *Wikipedia* and *This Exquisite Forest* the openness of the resource is given legal effect through the application of a CC license. In the case of many FOSS programs this function would be carried out by the General Public License (*GPL*). In other instances, it could be carried out by requiring those who hold copyright over their individual contributions to grant a 'bare license' to potential contributors and users that permits use and re-use of those contributions within the OPCC process. This openness is facilitated by the non-rival and non-excludable nature of an OPCC work that enables it to be shared and enjoyed among an infinite number of persons at the same time.

ii. Chain of sequential innovation

The OPCC process involves a multiplicity of persons building upon and adding to contributions made by each other within a sequential innovation process. This means that each contribution to the OPCC process holds the potential to inspire and to direct the nature of succeeding contributions. It also means that the OPCC work is in a constant process of change as a result of contributions that are being made to it over an indefinite period of time.

A distinctive feature of the OPCC model is the absence of a specific pre-determined creation goal or scheme of creation. Although contributors to a *Wikipedia* article may share a consensus that their contributions should lead to an encyclopedia article on a particular topic they would not have a common design as to how the article should be structured, the sequence in which the facts should be presented, or the nature and content of each contribution. The fact that collaborators tend to be distanced both spatially as well as temporally along the sequential innovation process makes it even more difficult for them to share such a common design.

On the other hand, unlike in traditional models of collaborative authorship, there is very little interaction between contributors outside of the creation process. As noted above, although contributors to *Wikipedia* may interact over discussion forums, these discussions tend to focus around the technical issues. Very rarely do they relate to the formulation of the actual 'expression' of an article. On the other hand, in *This Exquisite Forest* and *Folding Story* projects there is no possibility for such discussion and interaction among contributors takes place indirectly through the act of creation itself.¹³

¹³ On indirect interaction through the act of creation see Mélanie Clément-Fontaine, *L'oeuvre Libre* (Larcier, Brussels 2014) 175.

iii. Creative freedom and autonomy

The OPCC process is also characterized by an absence of organizational hierarchy that is usually present in traditional collaborative endeavors such as the creation of films, operas or compilations where one or more co-authors have the ability to direct the creative activity of others and to determine which contributions should be included in the final work. The OPCC model is heterarchical¹⁴, meaning that each contributor enjoys an equal degree of power and authority in determining the direction and outcome of the creative endeavor. This gives to contributors the freedom to exercise a high degree of creative autonomy within the creation process. Accordingly, each contributor has the ability to develop or change the narrative of the work in a way that could not have been predicted by preceding authors. Furthermore, contributions to an OPCC work tend to be random and sporadic and to proceed according to the personal preferences and discretion of each contributor. This means that there can also be a significant variance between contributions in terms of both quantity and quality; one person contributing an entire paragraph while another's contribution is limited to a small editorial modification.

iv. Ideology

The OPCC model of creation is influenced and supported by a particular creation ideology¹⁵ based on equality, democracy, collectiveness and sharing. This ideology is usually shared by contributors to OPCC projects and serve to incentivize their participation in the creation process. Unlike conventional models of collaborative authorship recognized under copyright law, OPCC authorship is not driven by considerations of direct or indirect pecuniary reward. Instead, participation is incentivized *inter alia* by the possibility of gaining peer-recognition, being a part of a community and engaging in a socially valuable creation activity. Peer-recognition in particular can be a powerful factor that motivates contributors to continue to engage within the creation process or to enhance their degree of participation. For example, within the *Wikipedia* project, a high level of peer-recognition could be rewarded through election to administrative positions as well as greater appreciation and respect for the contributor within the community. In *Folding Story* contributors who show a high level of commitment to the creation project are honored

¹⁴ Axel Bruns, 'Towards Producers' in Fay Sudweeks, Herbert Hrachovec and Charles Ess (eds) *Proceedings Cultural Attitudes towards Communication and Technology* (2006) 275, 279. A 'heterarchy' has been defined as "(...) the relation of elements to one another when they are unranked or when they possess the potential for being ranked in a number of ways." Carole L Crumley, 'Heterarchy and the Analysis of Complex Societies' (1995) *Archeological Papers of the American Anthropological Association* 1,3

<<http://web.sonoma.edu/users/p/purser/Anth590/crumley%20heterarchy.pdf>> accessed 14 February 2018.

¹⁵ See Andrea Forte and Amy Bruckman, *Why do People Write for Wikipedia?* Georgia Institute of Technology (2005) <<http://www.andreaforte.net/ForteBruckmanWhyPeopleWrite.pdf>> accessed 26 September 2017. See also Ruediger Glott, Philipp Schmidt and Rishab Gosh, *Wikipedia Survey-Overview of Results* (UNU-MERIT 2010) 9-10. <http://www.ris.org/uploadi/editor/1305050082Wikipedia_Overview_15March2010-FINAL.pdf> accessed 26 September 2017. See also Y Benkler, 'Peer Production and Cooperation' in Johannes M. Bauer and Michael Latzer (eds), *Handbook on the Economics of the Internet* (Edward Elgar 2016) 105-109.

through the blog posts and announcements made by the platform owner and a scoring system that ranks their activity within the platform. Thus, recognition of authorship and the ability to preserve one's identity within the creation project attains considerable significance within the OPCC framework.

3. Constructing a notion of OPCC authorship

As per the characteristics of the OPCC model discussed above, I proceed to construct a notion of OPCC authorship in relation to the elements of inclusivity and dynamism, which I argue constitute the core elements of the notion of OPCC authorship.

i. Inclusivity

Inclusivity denotes the shared and collective nature of OPCC authorship. In this sense, it can be viewed as a counterpoint to the exclusivity based copyright law notion of authorship with its strong individualistic bias¹⁶ and accompanying view of an author as a solitary genius.¹⁷ The element of inclusivity emerges in relation to several aspects of OPCC authorship.

Firstly, it is apparent in its acknowledgement of authorship as a collective exercise within which the individual ideas and experiences of a plurality of persons entwine and react with each other to give rise to creative expression. The element of inclusivity also emerges through its recognition that authorship is not only about the creation of new or original content but also includes a strong component of adapting, refining and re-interpreting existing content within an incremental process of creation.

Secondly, the architecture of the OPCC model affirms that, the value of an OPCC work will increase corresponding to the number of contributors that are engaged in the creation process and the diversity of their knowledge, skills and experience. Thus, OPCC authorship is founded on the assumption that the greater number of contributors who could be channeled to the creation process, and more diverse their intellectual backgrounds and experience, the greater the utility and value of the intellectual output (OPCC work) that will ensue through the creation process. In this sense OPCC authorship reflects a collaborative value creation exercise within which individual creators make their creative contributions in the expectation that the value of those contributions would be enhanced through their combination with other contributions and the modifications and improvements effected by downstream contributors.

¹⁶ Craig notes that within the theoretical framework of copyright law authorial activity is viewed as an individual act rather than a communicative act. Carys J Craig, *Copyright, Communication and Culture: Towards a Relational Theory of Copyright Law* (Edward Elgar 2011) 11.

¹⁷ (n3)

Thirdly, OPCC authorship is inclusive in its refusal to discriminate among different types of contributions or the different roles played by various contributors within the creation process. For example, a person who contributes a paragraph of original copyrightable expression to a *Wikipedia* article obtains a similar claim to the authorship of that work, as a person who corrects a grammatical errors or a refines the syntax of a sentence of that paragraph. It is likely that the degree of peer-recognition that would accrue to these two persons within the creator community would vary. However, as per the ideology of the OPCC model both would be considered as having had contributed to the authorship of the OPCC work in equal measure. Thus, each contribution is afforded equal value within the OPCC authorship process notwithstanding the fact that individual contributions tend to vary both quantitatively as well as qualitatively.

ii. Dynamism

The element of dynamism in OPCC authorship arises primarily through the use of the sequential innovation model, the absence of a creation hierarchy and the creative autonomy enjoyed by contributors to the OPCC process. This creative autonomy allows any contributor to transform the direction or perspective of an OPCC work according to his own individual discretion and in a way that could not have been foreseen or predicted by preceding contributors. This is especially true in the case of projects that focus on the production of creative and artistic content such as *This Exquisite Forest* and *Folding Story*. Although, in certain cases project initiators or platform owners may be able to screen contributions for appropriateness and quality, their role is usually limited to guarding against acts of vandalism and the prevention of contributions that violate community norms and guidelines from being absorbed into the OPCC work. It does not enable any person to exercise control over the creative or artistic decisions made by the contributors at large or to determine the form and nature of the OPCC work.

On the other hand, each contribution made to an OPCC work holds the potential to direct and inspire succeeding contributions and to determine the trajectory of the creation process. This also serves to imbibe OPCC authorship with an inherent dynamism. As such, it becomes impossible to discount the importance any contribution no matter how small, as even something as commonplace as a suggestion or idea could serve as a source of inspiration for future contributors. This is accentuated by the random and sporadic nature of contributions, that enable contributors to instantly and spontaneously react to the creative contributions made by each other as well to developments taking place in the world around them.

The open-endedness of the OPCC model and the absence of a pre-determined creative goal or objective, allows wide scope for experimentation, iteration, creative exchange and cross-fertilization within the authorship process. Thus OPCC authorship acts as a creative incubator within which different creative visions could be expressed, developed or rejected. This also highlights another aspect of the dynamic quality of the notion of OPCC authorship, in that authorship is linked to both a product (i.e. the OPCC work) as well as a creation process. Thus as opposed to the notion of authorship in copyright law that is defined in relation to a static work,

OPCC authorship needs to be defined both in relation to the OPCC work as well as the OPCC process.

Having, attempted to construct a notion of OPCC authorship, I proceed to consider the extent to which OPCC authorship could be accommodated within the existing notion of collaborative authorship in copyright law. In doing so, I refer to the ways in which collaborative authorship has been conceptualized and applied in the copyright law frameworks of France, the US and the UK.

4. Collaborative authorship in copyright law

Buccafusco correctly points out that copyright jurisprudence was not initially founded upon a theory of authorship, neither has it worked one out.¹⁸ Nevertheless it is possible to draw a notion of collaborative authorship in copyright law from the way in which authorship has been conceptualized and interpreted in relation to works created through collaborative creation endeavors.

Copyright law recognizes three models of creation that give rise to works of plural authorship, namely the joint, derivative and collective models of creation. This classification applies consistently across different copyright law systems, albeit with nuances in the ways in which they are defined and interpreted. Authorship and the distribution of exclusive rights over works of plural authorship are determined according to the model of creation within which the particular work of plural authorship has been produced. What is interesting is that copyright law's conception of plural authorship appears to be limited to these three specific models. At the moment, copyright law does not offer a catch-all-category (or a category *droit commun*) that would be equipped to deal with a work that fails to fall within any one of these categories. As such, there is no indication as to how a work that is created through the efforts of a multiplicity of persons through a process that does not fit within any of these three models would be treated under copyright law.

At the outset it must be noted that an OPCC work would not fit within any one of the categories of collaborative creation currently recognized under copyright law. The joint creation model, envisions a group of persons collaborating together in the creation of a specific and as yet unfinished work,¹⁹ with the creation process automatically coming to an end once the joint work has been realized. Thus the joint creation model fails to capture the open-ended nature of the OPCC process which is not directed towards the production of a specific work but can continue indefinitely.

¹⁸ Christopher Buccafusco, 'A Theory of Copyright Authorship' (2016) 102 *Virginia Law Review* 1229, 1230.

¹⁹ In the US case of *Ashton-Tate Corp. v. Ross* [1990] 916 F. 2d 516, 522, it was affirmed that where a contribution is made to a pre-existing work it would not result in a joint work but in a derivative work. Similarly, Bently and Sherman observe that poem written by one person and translated by another will not be a joint work but a derivative work. Lionel Bently and Brad Sherman *Intellectual Property Law* (4th edn OUP, Oxford 2014) 131.

Similarly, an OPCC work cannot be categorized as a derivative work. The derivative creation model envisions the creation of a new work through the modification, alteration or adaptation of a pre-existing work. Thus the new work 'derives from' an existing work and constitutes a work of multiple authorship in the sense that it represents a fusion of expression belonging to the author of the pre-existing work and the author of the derivative work. However, the derivative work constitutes an independent work that exists separately from the pre-existing work and *vice versa*. Thus, the derivative creation model fails to capture the dynamism that is inherent in the OPCC model whereby any contribution that modifies, adapts or builds upon an existing contribution is absorbed into the common work without enjoying a separate existence from it.

The collective creation model envisages the creation of a collective work through the compilation or arrangement of the creative contributions made by a multiplicity of authors, within a logical sequence. The characteristic feature of the collective creation model is that the different authors do not collaborate with each other within a common creative endeavor, but instead work independently on their individual contributions. These contributions are later collated together to form a single collective work by a person who is usually attributed the authorship of the collective work.²⁰ As such, the absence of collaboration among the different authors within the creation process and the fact that these different contributions usually remain separate and distinct from each other, clearly prevents the OPCC process from being located within the collective creation model.

However, in the absence of a general notion of collaborative authorship in copyright law, I am compelled to construct a notion of collaborative authorship by having reference to the way in which authorship has been conceptualized in relation to these three creation models. Of these, the collective creation model gives rise to a work of single authorship as opposed to a work of collaborative authorship as the collective work is attributed to the sole authorship of the person responsible for arranging or compiling the creative contributions made by the other authors. Thus, the collective creation model is not useful to an inquiry into the notion of collaborative authorship in copyright law. Therefore, I proceed to consider the way in which authorship has been conceptualized and interpreted in relation to the joint and derivative creation models.

I argue, that the notion of collaborative authorship in copyright law hinges upon three main elements. Firstly, the existence of a static (in the sense of unchanging) work to which authorship is attributed. Secondly, the contribution of original expression (the criterion of originality being determined according to the standard applicable to each jurisdiction). Thirdly, the degree of control exercised by the author over the creation process, which refers to the author's ability to control the artistic or creative judgments that are reflected in the original expression incorporated in the work.

²⁰ Provided that the compilation and/or arrangement of the different contributions display sufficient originality in order to qualify him as an author.

4.1. Static Work

The notion of collaborative authorship in copyright is constructed in relation to a static ‘work’, the nature and form of which remains constant. Any modifications or additions to this static work will result in a new derivative work (provided that the modification or addition satisfies the requisite threshold of originality), but the work itself will remain unchanged. Linking the notion of authorship to a static work emphasizes authorship as a relationship that exists in relation to a product and fails to take into account its relationship to a creation process.

Interestingly, in a determination delivered by the Court of Appeal of Versailles²¹ in France, a distinction was drawn between a new ‘version’ of a work and a ‘new’ work. The Court of Appeal held that, the technical and functional developments effected in the successive versions of a software program did not result in the creation of a new software program, but merely a represented stage in the technical and functional evolution of that software program at a given time. The Court of Appeal acknowledged that software programs, such as the one under review, would necessarily constitute an evolutionary product by reason of the practical need to adapt to rapid technological developments, and that this evolutionary process would continue so long as the software program was in the process of commercialization. This decision therefore represents an acknowledgement on the part of the Court of Appeal of Versailles as to the evolutionary nature of software programs and a refusal to artificially compartmentalize each stage of their evolution as a new derivative work. The Court of Appeal concluded that rather than constituting a series of independent derivative works, the different successive versions constituted a collective work within which the personal contributions of various authors are merged together without it being possible to attribute to them a separate right over the final work.

In this instance, the software program was created under a proprietary model which made it easier to categorize it as a collective work which had been created under the authority of the corporate entity under whose name it had been divulged. However, in the context of an OPCC work, the categorization of different stages of a work’s evolution as a collective work is not possible especially since under French law such categorization requires the existence of an authoritative entity who takes the initiative for creation²² which is clearly not present in the case of an OPCC work.

4.2. Original expression

‘Originality of expression’ is the cornerstone of copyright law. The objective of copyright law is to provide protection to authors in respect of their original expression by means of granting exclusive rights that enable them to control the ways in which such original expression is used

²¹ CA Versailles 4 octobre 2001, *Thomas et SARL Ready Soft c. SARL Codat Informatique et Mattern*, 327 RJDA 3/2002, 276.

²² Michel Vivant and Jean-Michel Bruguière, *Droit d’Auteur* (Daloz 2009) 245-247.

and exploited. Thus an author is defined as the person who creates the original expression that qualifies for copyright protection.

This conceptualization of authorship also pervades the notion of collaborative authorship in copyright law. The following discussion exemplifies how the criterion of original expression is applied in relation to joint and derivative works.

i. Joint works

Authorship requires that the creative contribution is directed towards the expression of the work. This effectively precludes persons who contribute information or ideas and make purely technical contributions such as refining and correcting existing content, from claiming authorship over the joint work. French law necessitates that a co-author demonstrates that his contribution qualifies as an original creative contribution. The criterion of creativity requires that his contribution is directed towards the expression (*mise en forme*) of the work. Similarly, US law enunciates that an author is a person who actually creates a work by translating an idea into a fixed, tangible expression that is entitled to copyright protection.²³ Thus persons who merely contribute non-expressive elements in the form of research assistance or commentary are precluded from qualifying as joint-authors.²⁴ The law of the UK takes the same position by requiring a putative joint author to contribute the ‘right kind of skill and labor’²⁵ in the sense of contributing to all or any of the constituent parts of a work by way of authorship.²⁶

The problem with limiting authorship only to those persons who have contributed towards the expression of the work is that, it effectively discriminates against those contributors who engage in vital tasks of editing and commentary which while they do not directly contribute to the expression of an OPCC work, are crucial in sustaining the OPCC process. Such discrimination militates against the ideology of equality and democracy on which the OPCC model is founded and could serve as a disincentive for contributors from continuing to carry out these tasks.

Furthermore, UK copyright law also notes that the contribution must be made towards the authorship of the work in the sense that it must find itself expressed in the final work.²⁷ This gives rise to the question as to what would happen if the original expression contributed by a person becomes obliterated within the sequential innovation process. This could take place by reason of a succeeding contributor intentionally deleting or overwriting the expression²⁸, or by reason of

²³ *Community for Creative Non-Violence v Reid* [1989] 490 US 730.

²⁴ *Sheshadri v Kasraian* [1997] 130 F.3d 798.

²⁵ *Fylde Microsystems Ltd v Key Radio Systems Ltd.* [1998] FSR 449

²⁶ *Cyprotex Discovery Ltd. v University of Sheffield* [2004] RPC 4.

²⁷ Kevin Garnett, Gillian Davies, Gwilym Harbottle (eds), *Copinger and Skone James on Copyright* Volume I (16th edn Sweet and Maxwell, London 2011) 248.

²⁸ Such overwriting is allowed within certain creation projects that use the OPCC models such as *Wikipedia*, though not all.

the expression becoming obliterated along the sequential innovation process.²⁹ In either case, under the existing copyright law framework of the UK, the authorship status of such a contributor would be precarious.

As regards the requirement of originality, US law requires that, in order to qualify as a co-author of a joint work, “(...) the contribution must represent original expression that could stand on its own as the subject-matter of copyright.”³⁰ In the decision delivered in the case of *Childress v. Taylor*³¹, the Second Circuit affirmed this view and noted that co-authorship required the making of a contribution that could be independently copyrightable. The copyright laws of France and in the UK do not include such an explicit rule. However, as copyright conceptualizes originality as a personal relationship between an author and his expression,³² it is possible to argue that the copyright laws of these jurisdictions would also not allow a contributor to make a claim of authorship in relation to an original expression, the originality of which cannot be attributed to him.

The main difficulty in applying the criterion of originality to OPCC works is that, within the ‘tweaking’ process that is commonly used (especially in the creation of *Wikipedia* articles), an amalgamation of expressions contributed by different persons within the sequential innovation process, which on their own would fail to satisfy the standard of originality may through their combination with each other give rise to an original copyrightable contribution. In such an instance it would be difficult to determine who should be vested with authorship over that contribution, perhaps none of the contributors would qualify as authors under the existing originality test notwithstanding the fact that an original work has come into being.

ii. *Derivative Work*

The author of a derivative work is the person who creates a new work by modifying the original expression belonging to an existing copyright protected work and combining it with his own original expression. Thus two requirements need to be fulfilled in order to be considered as the author of a derivative work.

Firstly, the contributor must contribute his own original expression to the new derivative work. Desbois explains that under French copyright law, such originality must manifest itself through the new expression that is contributed to the composite work by its author, or through its composition; meaning in the way in which the author structures or arranges the pre-existing

²⁹ I do not consider contributions that are rejected at the outset by the community or by the curators of the project for being inappropriate and/or damaging to the quality of the OPCC work, since these contributions are not considered to be absorbed into the OPCC work in the first place, which denies authorship to these contributors.

³⁰ Paul Goldstein, *Copyright: Principles, Law and Practice* (Little Brown 1989) 379

³¹ *Childress v. Taylor* [1991] 945 F. 2d. 500.

³² For example, in France the criterion of originality requires that the work reflects the stamp of the author’s personality (n22) 266. In the UK, originality is defined as origination in the sense that the work originates from the author’s skill, labor and judgment. Bently and Sherman (n19) 96-97.

work.³³ It is clear that mere acts of tweaking will not be able to fulfill the requisite standard of originality nor would simple edits or contributions to the factual information in *Wikipedia*. In the UK it has been held that, in order to secure copyright protection it is necessary that the labor, skill and capital expended by the author of the derivative work “(...) should be sufficient to impart to the product some quality or character which the raw material did not possess and which differentiates the product from that raw material.”³⁴ Hence it appears necessary for the author to imbibe the expression belonging to the pre-existing work with some material alteration or embellishment that qualifies as being original.³⁵ Similarly, in the US, it is necessary that the derivative work demonstrates a sufficient level of originality in the sense that it incorporates a distinguishable and non-trivial variation from the pre-existing work.³⁶

Secondly, it is necessary that the new derivative work incorporates original copyrightable elements belonging to the underlying work. French law holds that such incorporation could either take the form of a ‘material incorporation’ (i.e. that the protectable element is incorporated as it is and without modification in the composite work) or an ‘intellectual incorporation’ (i.e. that the protectable element is incorporated with modification as in the case of adaptations or translations where it is the spirit of the intellectual element that is incorporated in the derivative work and not the element *per se*).³⁷ Similarly, in the UK it is required that the derivative work appropriates a substantial part of the original expressive content³⁸ belonging to a pre-existing work.³⁹ US law has a somewhat higher threshold by requiring not only that the derivative work should incorporate original expression that belongs to a pre-existing work, but that this expression should also be transformed, recast or adapted.⁴⁰

As noted above, in the discussion relating to joint works, not all contributions that build upon existing content would be able to demonstrate an original independent contribution on their part so as to qualify as authors of a derivative work. Furthermore, not all new contributions would incorporate copyrightable content belonging to a pre-existing contribution as required under the copyright laws of France and the UK. It would be even more difficult to find contributions that transform or adapt expressive content belonging to pre-existing contributions as required under US copyright law.

³³ Henri Desbois, *Le droit d'auteur en France* (3rd edn Dalloz, Paris 1978) 33

³⁴ *McMillan and Company Ltd. v K and J Cooper* (1924) 40 TLR 186.188.

³⁵ *Interlego v. Tyco Industries* [1989] AC 217, 268

³⁶ Jane C. Ginsburg and Robert Gorman, *Copyright Law* (Foundation Press, 2012) 42-43.

³⁷ Frédéric Pollaud-Dulian, *Le Droit d’Auteur* (2nd edn Economica, Paris 2014) 402-403.

³⁹ (n27) 7-30.

⁴⁰ William F. Patry, *Patry on Copyright* (Thomson/West, USA 2006) 3-141.

4.3. Control

The element of control refers to the notion that in collaborative creation endeavors, authorship will accrue to those persons who exercise control over the creative decision making process in determining the nature and form of the original expression that is incorporated in the final work. Although not as clear-cut as the other two elements discussed above, the element of control can be discerned in the notion of collaborative authorship in all three jurisdictions.

In the context of a derivative work, control is not only exercised by the author of the derivative work who makes creative decisions with regard to the new expression that is contributed by him as well as the way in which protectable elements of the pre-existing work is incorporated within his new derivative work; it is also exercised to a certain degree by the author of the pre-existing work who is able to impose limitations and restrictions as to the way in which portions of his work can be used and modified within the derivative work. Thus, the author of the pre-existing work is able to exercise some 'negative' degree of control over the creation process by preventing the author of the derivative work from using his work in certain specific ways.

As regards the joint creation model, under French law, in order to categorize a collaborative work as a joint work it is necessary that all collaborators work together under a 'common inspiration' (also defined as a 'spiritual intimacy') which enables them to work towards a common goal by means of a 'creative concerted effort'. Although an exact universally acceptable definition of this term is yet to be discovered, Desbois explains this to mean that the distinct efforts have been applied towards a common goal and that the various contributions have been realized in contemplation of others, in the sense that each contribution is made following a mutual exchange of ideas among the different co-authors.⁴¹ The requirement of common inspiration evokes a mutual rapport among authors as to the nature and form of the final work that would be achieved as a result of their creative collaboration. Thus, each contributor to the joint work would engage in the creative activity with an understanding and agreement as to the common work that will arise through their joint efforts. The existence of a 'common inspiration' means that the task of creative decision making is shared among all the authors which means that they all enjoy a degree of control over the final nature and form of the work.⁴² Thus, in the *Le Prince Igor* case⁴³ the Court of Appeal of Paris, refused to treat two students of the composer Borodine as his co-authors in an opera that had been left unfinished at the time of Borodine's death on the basis that it was not possible to attribute to Borodine a spiritual intimacy with his students in finishing the work. Such a 'common inspiration' is clearly absent in the case of an OPCC work, where any downstream contributor is able to modify or change the narrative of the OPCC work in a way that does not accord with the creative vision of upstream authors and is outside their control.

⁴¹ (n33) 165.

⁴² Clément-Fontaine is also of the opinion that such a spiritual intimacy cannot be attributed to collaborators of an open work due to an absence of direct interaction among them. (n13) 282.

⁴³ *Le Prince Igor* Paris 7e ch. 8 juin 1971: D 1972 383.

Similarly, the law of the UK requires that in creating a joint work, the co-authors collaborate to produce a copyright work of a single kind in prosecution of a common design.⁴⁴ This seems to indicate the existence of a pre-agreed scheme of creation on the part of all contributors that allows them to collaborate in the achievement of a shared goal or objective.⁴⁵ In the case of *Robin Ray v Classic FM*⁴⁶ it was determined that in order to establish authorship it was essential for the contributor to have direct responsibility for what appeared on the page and that a joint author must participate in the writing and share responsibility for the form of expression in the literary work. Furthermore in the case of *Hadley v Kemp*⁴⁷ a musical composition was considered to be a work of sole authorship as opposed to being a work of joint authorship, because although a plurality of persons contributed to the creation of the musical work, the strict control exercised by one member of the band over the creation process and in determining the nature and form of the final musical work, made it a work of sole authorship. On the other hand, in the case of *Stuart v Barrett*⁴⁸ a musical composition that was produced by a ‘jamming’ session by members of a band, with each member playing a significant and creative role in bringing the music of a song to its final form, was considered to be a joint work that was the product of the compositional skills of all members of the group. The difference in the determinations reached in these two situations can be explained both in terms of the original contributions made by the band members in the latter case, as well as the fact that all those persons shared a degree of control over the creation process.

In US copyright law, the link between control and authorship has been affirmed in a series of decisions delivered by the Ninth Circuit, that adopts a control-based test of authorship whereby authorship is determined based on the creative and financial control exercised over a joint work.⁴⁹ For example in the *Aalmuhammed v Lee*⁵⁰ case, the Ninth Circuit rejected a claim of joint-authorship by Aalmuhammed who had claimed to have reviewed and revised a film script and to have even written entire scenes that had been enacted in the film, on the grounds that he did not at any time have superintendence of the work and that he was not the person who actually formed the picture by putting people in position and arranging the place. These aspects were controlled by the director of the film and the production company. Furthermore, the Ninth Circuit held that, although Aalmuhammed was able to make helpful recommendations to the director, the director was not bound to accept any of them. The Court reasoned that the work would not benefit in the slightest unless the director chose to accept those recommendations. The Ninth

⁴⁴ W R Cornish, *Intellectual Property* (4th ed Sweet and Maxwell 1999), 386.

⁴⁵ Bently and Sherman interpret the common design as the existence of a shared goal on the part of all co-authors. (n19) 131.

⁴⁶ *Robin Ray v Classic FM* [1998] FSR 622

⁴⁷ *Hadley v Kemp* [1999] EMLR 589

⁴⁸ *Stuart v Barrett and Others* [1994] E.M.L.R. 448

⁴⁹ Melissa Dolin, ‘Joint Authorship and Collaborative Artwork Created through Social Media’ 39 AIPLA QJ (2011) 548. Dolin distinguishes between the approach of the Ninth Circuit and the approach of the Seventh Circuit that uses an intent-based test that require contributors to prove intention to merge their contributions into a single work. *Ibid*

⁵⁰ *Aalmuhammed v Lee* [2000] 202 F. 3d 1227.

Circuit concluded that Aalmuhammed lacked control over the work and that “(...) absence of control is strong evidence of the absence of coauthorship.”⁵¹

This element of control is lacking in the notion of OPCC authorship as no person has the ability to exercise control over the creative process or in determining the nature and form of the original expression that is incorporated in the OPCC work. The open-ended nature of the sequential innovation process and the creative autonomy exercised by each contributor makes such control impossible as well as irrelevant to the notion of OPCC authorship.

5. Revisiting copyright law to accommodate the notion of OPCC authorship

I argue that the divergence of the notion of OPCC authorship from the existing notion of collaborative authorship in copyright law can be traced to a fundamental difference in the ideological basis on which these two notions of authorship are founded; OPCC authorship being based on a notion of inclusivity while copyright law is based on a notion of exclusivity.

Copyright law is primarily a tool for the propertization of intellectual content in order to allow it to circulate in the marketplace as a commodity.⁵² As Aufderheide notes, authorship has an extraordinary convenience for this purpose insofar as it affixes the origin of the work and provides an original property holder.⁵³ Biron and Cooper concur with this view by observing that the purpose of authorship for copyright law, is amongst other things, to determine the first instance ownership of property rights.⁵⁴

Ensuring the efficient propertization of a copyright protection work necessitates that the transaction costs associated with the use and re-use of such a work is maintained at a minimal. This requires firstly, that the copyright is vested in an identifiable person or persons so as to minimize the search costs of potential users in identifying and communicating with rightholders in the license clearance process and secondly that, the fragmentation of the copyright is avoided as far as possible in order to prevent the costs of use and re-use from increasing. In this regard the elements of original expression and control act as useful mechanisms in limiting the number of authors who could claim copyright over a collaborative work by ensuring that only those who satisfy these criteria will be granted exclusive ownership rights.

The limitation of the individuals who could claim authorship over a collaborative work may be justified and even necessary, where the authorship claim leads to the ownership of exclusive rights over the work. However, I argue that, in light of the ideological shift from inclusivity to exclusivity that is discernible within the OPCC context, the application of artificial criteria in order to limit authorship could not only be redundant but damaging to the sustainability of the OPCC

⁵¹ Ibid 1235.

⁵² Patricia Aufderheide ‘Creativity, copyright and authorship’ in Cynthia Chris and David A Gerstner (eds), *Media Authorship* (Routledge 2013) 22.

⁵³ Ibid

⁵⁴ L Biron and E Cooper, ‘Authorship, Aesthetics and the Artworld: Reforming Copyright’s Joint Authorship Doctrine.’ (2016) 35 *Law and Philosophy* 55, 68.

model as it could in some instances militate against the basic ideological norms of equality and democracy on which the OPCC model is based.

Accordingly, I argue that that the notion of authorship in copyright law should be revisited and expanded in order to accommodate the OPCC notion of authorship based on inclusivity and dynamism. As a means of achieving this, I propose that the notion of the 'work' should be expanded to include dynamic evolutionary works such as OPCC works. This would allow authorship to be understood in a broader sense not only as a direct relationship between the author to the original expression contributed by him to a specific work, but as relationship to a particular creation process. Thus, any person whose contribution has been directed towards the creation of the OPCC work and absorbed into the creation process, should be recognized as an author of that work, regardless of the nature of that contribution or its originality.

The requirement that the contribution should be absorbed into the creation process denotes that it is incorporated into the creation process in some way, in the sense it has not been rejected at the outset either by the members of the community, an editor or an accepted curator. It simply means that it should be accepted as a *bona fide* contribution whether it be an addition or modification to the common work, a comment made towards the general discussion on a *Wikipedia* forum or a contribution made towards the debugging of a FOSS software program or the suggestion of an idea for the development of the theme or plot of a fictional narrative on *Folding Story*, regardless as to whether these contributions are visible in the OPCC work at a particular stage of its evolution. On the other hand, by requiring that the contribution be directed towards the actual creation of the OPCC work persons who carry out functions that are 'neighboring' to the creation process, such as the provision and maintenance of the digital space (platform) on which the creation process takes place and the provision of digital tools that are used in the creation of content will be precluded from making a claim of authorship.

As Jaszi observes, authorship is a culturally, socially, politically or economically constructed category rather than a real or natural one.⁵⁵ As such, social shifts and transformations in the way creation is carried out and creativity is viewed, necessarily lead to changes in the way the notion of authorship is constructed. This is not to say that the conventional notion of collaborative authorship in copyright law is no longer relevant. Nonetheless, it is necessary to acknowledge that recent shifts in creative and cultural practices indicate that exclusivity and propertization is no longer the sole accepted canon in the production of cultural content. It is increasingly being challenged by the new creed of inclusivity and sharing. Therefore, if it is to maintain its relevance as a legal doctrine that is *in sync* with current creative practice, copyright law needs to be able to cater to both sides of the ideological divide.

⁵⁵ Jaszi (n3) 459.