

Article

Copyright, Culture, and Community in Virtual Worlds

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Abstract: Communities that interact on-line through computer games and other virtual worlds are mediated by the audiovisual content of the game interface. Much of this content is subject to copyright law, which confers on the copyright owner the legal right to prevent certain unauthorized uses of the content. Such exclusive rights impose a limiting factor on the development of communities that are situated around the interface content, as the rights, privileges, and exceptions associated with copyright generally tend to disregard the cultural significance of copyrighted content. This limiting effect of copyright is well illustrated by examination of the copying of content by virtual diaspora communities such as that formed around the game *Uru: Ages of Myst*; thus, the opportunity for on-line communities to legally access the graphical elements on which those communities are built is fraught with potential legal liability. This presents the reciprocal situation from efforts to protect the cultural properties of indigenous communities as traditional knowledge. Reconsideration of current copyright law would be required in order to accommodate the cohesion of on-line communities and related cultural uses of copyrighted content.

Keywords: copyright; fair use; *Uru*; *Myst*; fan fiction; traditional knowledge; computer game; diaspora; user generated content; UGC

1. Introduction

Computer gaming and related ventures constitute one of a number of industries that depend on producing and commodifying cultural content, which is generally to say, content that is adopted into the general industrialized culture ([1], pp. 44–45). There exists a direct relationship between copyright and such cultural industries. The express purpose of copyright law is to foster the development of art, music, literature, movies, and other cultural creations. Successful copyrighted works add to the fund of cultural content and practice, but generally through the mechanism of commodification, such that ownership and sale of copyrighted content is intended to provide a monetary reward to spur cultural creation. Indeed, copyright holders frequently target their creative and distributive efforts toward cultural adoption, and profit from the promulgation of their works as part of popular culture.

Consequently, given the goal of fostering new cultural content, the copyright system has been criticized with some frequency for failing to make allowances for access and re-interpretation of cultural materials [2,3]. Graphical, musical, audiovisual, and literary works constitute key components of shared culture. Full participation in society is impossible without access to such works, but access is controlled by an unsympathetic copyright regime. Some types of participation, such as criticism, commentary, and parody, are privileged under exemptions such as the fair use doctrine. But many, indeed most, types of participatory re-creation of such works are not contemplated within either fair use or other copyright exemptions.

This failure of the copyright system holds as true for participation in virtual communities as for society generally; indeed, given that virtual communities are largely mediated by copyrighted media,

it poses a particular problem for such communities. In this article I illuminate this problem by means of a case study, by following the migration of copyrighted content away from the defunct on-line game *Uru: Ages of Myst* to *Second Life* to other venues. Copyrighted graphics from the *Uru* game were reproduced by departing players attempting to maintain their distinctive virtual community and culture through shared iconic images. The unauthorized appropriation of content from the *Uru* game was crucial to maintenance of the virtual community but, as I show here, almost certainly constituted copyright infringement. I relate this problem to other aspects of cultural consumption that have received intense recent attention, but show that the question of consumption by virtual communities raises its own unique and distinctive issues.

2. The Uru Diaspora

Among the more striking examples of gaming community and culture is that of the *Uru* diaspora, which has been studied in detail by [4]. Pearce describes the unique gaming community that formed around the virtual environment of *Uru: Ages Beyond Myst* game, an on-line extension of the popular *Myst* and *Riven* desktop computer games. The on-line game proved unprofitable and was shut down by the provider. Although not a financial success, the game attracted a highly devoted cadre of players, who, in the face of the game's imminent closure, determined to retain and foster the community they had developed during their virtual association. In advance of the game closure, they identified and eventually colonized other virtual worlds where they could continue their community, importing with them into the alternative computer venues the distinctive design motifs of the architecture and artifacts from the *Uru* game world.

As a result, *Second Life*, *There.com*, and other on-line environments acquired regions of virtual territory, constructed by *Uru* migrants, that to a greater or lesser extent resembled the design of the *Uru* graphical interface. *Uru* look-alike images comprising buildings, fountains, and other distinctive architectural icons began to appear in these colonized virtual worlds. For example, Figure 1 shows a distinctive fountain that was copied from the *Uru* game and reappeared in diaspora communities in *Second Life* and *There.com*.



Figure 1. Uruvian Diaspora Fountain.

In the interim the *Uru* game itself has undergone a series of incarnations under a variety of proprietors. The game has reopened under a new sponsor on new servers, subsequently closed again, been hosted on player-maintained servers, and the game code has been promised to its users for maintenance as an open source project. During this period, some of the venues to which the *Uru* diaspora migrated, such as *There.com*, have themselves encountered financial difficulty and have also closed their servers, further displacing the migrant *Uru* communities that had settled there.

This saga of the *Uru* diaspora makes for provocative social and cultural study, but it hinges to a large extent on the appropriation of intellectual property. The culture carried by migrants from the initial *Uru* game ultimately revolves around copyrighted works, in the form of distinctive images and audiovisual works that they encountered on the initial server; their culture is ostensibly owned by the developer of the game where the community first formed. The reproduction of images from the *Uru* game in *Second Life*, *There.com* and elsewhere thus implicates copyright in the original game. The original images—and despite the spatial façade of the game interface, at the end of the day, the virtual “structures” are indeed images—were part of the *Uru: Ages Beyond Myst* game, both as the

software of game and the audiovisual output of that software, and were owned by the developers of that game. Such intellectual property is transferable and devisable; it presumably passed via sale or bankruptcy to the new owners of the *Uru* game properties. But there is no apparent mechanism by which any similar interest would have vested in the players who diffused the images to new venues.

3. The Copyright System

Much of the creative material that constitutes computer games is subject to copyright law [5,6]. Both individual components of the game and the overall combination of those components may constitute copyrightable works. Graphics, music, and sufficiently original sound effects all fall within copyrightable subject matter [7]. The animated combination of sound and graphics constitutes a copyrightable audiovisual work. The underlying software that records and controls the audiovisual output also falls within the ambit of copyright. The libraries of game components, as well as databases of character information that undergird virtual environments, may constitute sufficiently original compilations for copyright to attach to them as well [8].

Copyright vests in the copyright holder the right to legally exclude others from engaging in certain activities vis-a-vis the protected work. In the United States, these activities include the unauthorized reproduction, distribution, adaptation, public performance, and public display of the work [9]. Other jurisdictions grant similar exclusive rights. The exclusivity of the copyright holder does not extend to the idea expressed in a protected work, but to the particular expression of that idea in the protected work [10]. Infringement of the exclusive rights renders the perpetrator liable for monetary damages, and usually subjects the perpetrator to a court order enjoining further such activity.

Thus, reproduction of the *Uru* images—indeed, conscious and willful reproduction of the images—is rather clearly a violation of the copyright owner’s exclusive right of reproduction, the “copy right.” Some of the re-created images are literal copies of content from the *Uru* game, some are substantially similar or derivative of the content from the *Uru* game, and some have the “look and feel” of *Uru* content. And, liability for the infringement might not be limited to the subscribers who create potentially infringing images in the new server locales of the *Uru* diaspora. A credible argument could be made that the proprietors of *Second Life* and *There.com* are liable for contributory or vicarious infringement, “aiding and abetting” a copyright violation by hosting the images on their servers. As the operators of e-Bay, YouTube, various file-sharing services, and some ISPs have discovered, simply providing a forum for copyright violation, without directly participating in the infringing activity, can sometimes create liability for infringement [11].

Under U.S. law, such secondary liability requires knowledge of the activity and failure to interdict the infringement [12]. Thus the publishers of on-line gaming and virtual world systems will typically impose on their users contractual Terms of Service (“ToS”) that include prohibitions against activities such as copyright infringement [13]. Violation of the ToS, if detected, usually results at minimum in preclusion of the offender from access to the publisher’s system. Thus, imitating the images of another game publisher on the server space of a new *Second Life* or *There.com* colony might well have constituted a ToS violation for which the *Uru* colonists could well have been expelled from their new virtual home.

Of course, copyright liability attaches only to unauthorized uses of a work. One solution to the threat of liability is to seek permission or authorization for use of the work; but this is often not simple, practical or even feasible. An example related to this paper illustrates the point: the argument of this paper benefits from inclusion of an example of the kind of graphic material reproduced in the *Uru* diaspora, for example an iconic fountain that appears in Figure 1. Use of the image in a scholarly work is permissible under the copyright laws of many—although by no means all—countries. Any uncertainty as to the use of the image could be clarified by obtaining the permission of the copyright owner.

But it is entirely unclear who one would even begin to approach to gain permission—the original image has been modified by largely anonymous players, moved from server to server; control of the

content has been transferred multiple times, and several of the entities that might own or control the content have gone into bankruptcy. The difficulty of determining whom one would approach to clear the rights for inclusion of an *Uru* diaspora image in an academic volume indicates the difficulty that a user community would have in obtaining permission for their use of an iconic cultural image or motif. The general problem of obtaining permission for use of such “orphan works” whose ownership is obscure or indeterminate has become a recognized impediment to productive uses of many copyrighted works [14,15]. Unauthorized uses of such works may go indefinitely uncontested by absent or indifferent owners, but are more likely to be chilled by the uncertainty of a sudden unexpected infringement action.

Alternatively, joint ownership of the relevant images by players might convey the necessary authorization to avoid infringing use. Some commentators have suggested that the choices exercised by players during game play constitute copyrightable original expression, making certain game outputs either derivative works or co-authored works ([16], pp. 1548–50; [17], pp. 986–87). But, even accepting such arguments for some aspects of a game’s output, it is unclear whether the images of interest to *Uru* refugees would qualify, being primarily stock, static images out of the game’s visual library, rather than user generated images. Moreover, game publishers routinely impose contractual terms of service on their players, typically requiring them to surrender any proprietary rights they might accrue during game play ([13]; [18], pp. 981–82). Thus any proprietary interest that the players might have developed while engaged with the *Uru* game would likely have been previously defaulted back to the publisher.

4. Failing Fair Use

If copyright poses an impediment to diaspora players’ use of *Uru* images, the question then becomes whether the *Uru* publisher’s copyright is subject to any strictures that might accommodate such use. Like other property rights, copyright is not absolute, but is subject to a variety of privileges, exceptions, and exemptions that limit or curtail the exclusive rights of the copyright holder, often in particular contexts or situations. The exemptions differ from nation to nation, but the majority of them in any nation are narrow and specific and unlikely to apply to cultural appropriations such as those considered here, or for that matter to other takings for purposes of cultural or communal meaning.

In the United States, the best known of these user privileges or exemptions is likely the statutory fair use provision, which allows context specific uses of the protected work without authorization of the copyright owner [19]. A handful of other countries have adopted the same or similar statutory exemptions. Often the first instinct when an unauthorized use seems compelling is to rely on the “fair use” provision to justify taking the protected content, and this might seem the natural justification to advance for the unauthorized community use of material from the *Uru* graphic interface. However, the fair use provisions were not necessarily intended to accommodate such takings, and have not necessarily been interpreted in a manner that would justify them.

The U.S. copyright statute indicates four factors that are to be weighed in deciding whether a given use is fair: first, the purpose for which the material is being taken; second, the type of work from which the material is taken; third, the extent of the material taken; and fourth, the impact of the taking on the market for the work from which the material is taken. Courts have at times given extra weight to the final factor. The Supreme Court has also suggested that fair use is one of the statutory features necessary to mediate between the constitutional demands of free speech and the exclusive rights to expression granted by copyright: although copyright constitutes a governmental constraint on speech, fair use provides a measure of activity free from the constraint [20]. Consequently, uses of copyrighted material for purposes of public discourse, such as criticism, commentary, and parody, are given particular preference when considering whether the use is fair.

Depending on the factual context of these criteria, it may be permissible to use some, all, or none of a copyrighted work in a given situation without authorization. The determination of fair use has both the virtue and the vice of being highly fact-specific. Such context specificity makes the provisions

highly plastic, adaptable to a wide range of situations, including new and unforeseen situations; but at the same time, because the outcome varies with the context, the application of the provisions is often unpredictable. But however flexible it may be, fair use is like a rubber band: you can only stretch it so far before it snaps. Whether or not a use will be judged fair in a given situation is frequently a matter of some doubt until a court renders a verdict on the question. But certainly maintaining the cultural integrity of a virtual diaspora is not a use that courts would immediately recognize as fair.

4.1. Purpose and Character of the Use

In assessing the first factor, courts will tend to ask whether the unauthorized use is “transformative”, that is, whether the appropriated material is the basis for a new or altered work [21]. The transformativity test essentially constitutes an inquiry into whether the unauthorized use socially valuable use, at least in the dimension of originality. Uses that produce new works are favored; presumably if the goal of the use is simply to re-cycle or re-use the existing work, society is gaining little, and the courts assume that the appropriator could just as well seek the owner’s permission.

It is unclear how often the use of cultural icons, in a situation such as the *Uru* diaspora, will fit the transformativity test, as the test makes assumptions about unauthorized uses that are orthogonal to cultural or community uses. In some cases an image or motif will be incorporated into a new design or graphic representation, but just as often it will reproduce the initial image from which it was drawn. Indeed the diaspora uses may be intended to reproduce the previous image as faithfully as possible. Novelty is not at all the point of such takings, but fidelity. The goal in appropriation of a cultural icon is frequently not to transform it into something new, but rather to preserve its existing social meaning, even in a new context.

4.2. Nature of the Copyrighted Work

Neither is the second fair use factor likely to favor diaspora uses of copyrighted materials. The nature of a work determines the degree of copyright protection it receives, and so the severity of infringement in unauthorized use. Certain types of works receive “thin” or minimal copyright protection if the expressive content is sparse, and the majority of the content is unprotectable under copyright. For example, the copyright protection for factual compilations is typically “thin”, as the facts themselves cannot be protected by copyright, but only their original selection and arrangement. Unauthorized uses of minimally expressive works is more likely to be fair, as there is less protectable expression. More creative, expressive works receive more robust copyright protection, and so are reciprocally less amenable to fair uses.

The images taken in the *Uru* situation are not factual or minimally expressive. Quite the contrary, they are likely to be viewed as creative and original in the sense of copyright law—that is, the expression they contain originates with their authors. As fanciful works, drawn primarily from the creativity of their authors, they are likely to receive full copyright protection. They fall squarely within copyrightable subject matter, in the category of graphic works, and as components of audiovisual works; consequently analysis under this factor likely militates against a determination of fair use.

4.3. Amount and Substantiality of Material Used

A third question to be considered in fair use analysis is assessing how much of the protected work was taken. Assessing the weight of the portion taken from the copyrighted work immediately presents the problem of defining the work in question. As indicated above, an audiovisual work like a computer game comprises a constellation of individual copyrighted works, as well as constituting a copyrighted work in total. Thus, it is difficult to assess what the work at issue may be for purposes of fair use; the appropriation may be fractional or total, depending on the quantum chosen for analysis. For the most part, players in the *Uru* diaspora did not take the entire audiovisual work—although eventually they ran the full game on private servers, this was done with the acquiescence, and perhaps the formal permission, of the game publisher. Rather, players tended to appropriate particular images

from the game for replication in other virtual worlds. One might argue that the relevant work is the game as a whole, and lifting a discrete image out of the entire game constitutes a minimal taking. On the other hand, the image itself may constitute a copyrighted work, and taking that image could constitute taking that work in its entirety.

Courts have also considered the qualitative dimension, rather than the quantitative dimension, of unauthorized takings for fair use. This type of scrutiny recognizes that different portions of a work have different degrees of significance, regardless of the amount of material. Even if the quantum of material taken from the copyrighted work is small, it may be that the material taken constitutes the “heart” or essential aspect of the work [20]. Unauthorized taking of essential material may be more intrusive on the rights of the copyright holder than would be a more extensive unauthorized taking of nonessential material. In such cases, even a relatively small taking may disfavor fair use.

Here again, when considering the qualitative aspects of this fair use factor in the *Uru* diaspora, the analysis may turn on the definition of the work under consideration. If the work at issue is the *Uru* game as a whole, then the copying of certain culturally evocative images or motifs hardly seems to go to the heart of the work. Certainly the players who were relocating to new servers were consciously trying to reproduce the “essence” of the game they had left, but this is probably not the kind of core feature that the fair use test is intended to assay; the test looks rather for the unauthorized taking of some feature that gives the copyrighted work its value. The images of buildings or architectural motifs that migrated with the *Uru* diaspora are probably not core features of the *Uru* game in this sense.

However, the analysis likely changes if the focus moves from the audiovisual work of the game to the individual components of the game, which as indicated above, constitute copyrightable works in their own right. If the works at issue are the particular images that comprise the visual features of the game, not only does the scale of the fair use comparison change, but perhaps also the level of significance for a given taking. A particular motif from an *Uru* image, copied to *Second Life* or elsewhere, might well constitute the “heart” or gist of that particular image, even if it were not the “heart” of the game as a whole.

4.4. Effect on the Market

The final statutory factor in the fair use analysis is the impact of the unauthorized taking on the market for the copyrighted work. Here again, the definition of the work at issue is critical, as is the definition of the market. Courts have in some cases tended—somewhat tautologically—to define the market in question for this factor as the market for licensing the portion taken [22]. And, of course, it follows from this definition that an unauthorized taking of material necessarily displaces sales in the market for licensing of that particular material, making damage to the market something of a foregone conclusion. This seemingly inevitable outcome is somewhat ameliorated by consideration of whether a mechanism exists to facilitate licensing in such a market—whether there exists a clearing house or intermediary or set of commercial practices that would allow potential licensees to find and negotiate with the copyright holder [23].

On the one hand, it might be argued that the appropriation of content from the *Uru* game is likely to have minimal impact on the market for the game. In the diaspora, there seems to be no market for the game; players appropriated the images because the market failed. Moreover, the reproduced images are not likely to be market substitutes for the *Uru* game; indeed, even the diaspora colonies incorporating the images would likely not constitute market substitutes for the game. Players would clearly have preferred to continue playing the original game were it available; images from the game were transferred to other venues only because the original was unavailable. No real mechanism is apparent by which former players could instead have licensed the game or its contents, suggesting that there was not even a market for the individual images.

At the same time, one can imagine scenarios in which the migration of the *Uru* content could be said to damage the actual or potential market for subscriptions to the original game or its successor. While some commentators have suggested that there cannot be a market for works with missing

owners [24], bankruptcy may place the work into new hands. As described above, ownership and control of the *Uru* game passed through several different hands, with repeated attempts to re-launch the authorized version of the game. This is not particularly unusual; game providers come and go; they sometimes experience bankruptcies, and the assets of the company, including its content may well be acquired by a new owner. When a new owner attempts to re-launch a defunct game, or to attract players to refurbished content, the presence of copied alternates in other venues might prove a deterrent. Removal of copied content from *Second Life* or similar diaspora sites might encourage former players to return to the authorized version of the game if it becomes available once more.

5. Cultural Production and Copyright

The interdependence of copyrighted materials and community in the *Uru* diaspora reflects in microcosm several recurring issues in the broader relation of copyright to cultural coherence. Certainly the most commercially successful copyrighted works now routinely become integrated into popular culture [25,26]. Children act out *Star Wars* fantasies with their friends, or dress as Disney characters for costume parties; workers hum popular tunes at the office, or sport t-shirts emblazoned “Stark Industries” or drink from mugs reading “Live Long and Prosper”, or refer to their boss as “He Who Must Not Be Named.” At times such widespread adoption of commercial content occurs spontaneously, even unpredictably, generating unexpected sales and unexpected profits for the creator of the material. But the potential for profit from sustained and pervasive sale of content that has been integrated into the general culture increasingly prompts strategic campaigns to ensure cultural adoption of commercial content. Corporate marketing departments flood media channels with advertisements, product placements, discount coupons, and even carefully orchestrated “grassroots” campaigns to direct public attention to new creative works in the hope of prompting their integration into popular culture ([27], pp. 201–4).

The result is an increasingly frequent and paradoxical incidence of conflict between the exclusive rights of the copyright holder and the customary use of the work in society at large. Such conflicts have been exacerbated by the spread of digital media tools in the form of computers, smart phones, and other data processing devices, together with widespread telecommunications access. Such devices allow a widening majority of ordinary people who were once classed as simply content users, to digitally manipulate copyrighted materials and visibly disseminate the results. Content consumers have, of course, never been simply engaged in consumption; they have always re-interpreted the stories available to them, including commercially produced stories ([28], pp. 454–55). But access to digital technologies facilitates such re-interpretation and makes them noticeable. Children no longer merely act out *Star Wars* fantasies with their friends; they now video record such fantasies and upload them to the Internet where the reenactment can be widely seen.

Copyright owners have a fraught relationship with such communities ([29], p. 228). The existence of enthusiastic followers indicates that the creative work was at least something of a success; even otherwise obscure or unprofitable works can be kept viable by an interested group of fans. The Internet and related media now provide channels for dissemination of fan discussions, debates, and demands; the Internet also provides focal gathering points for otherwise scattered or marginal followers that at one time might have gone unnoticed. In some senses, enthusiastic fans are an author’s best commercial resource; the continuing devotions of fans to a particular work helps provide ongoing public exposure, promotion, and consumption, typically all for free.

At the same time, because fans of a work are not in the employ of the copyright holder, the activity and interest provided by fans can represent a loss of control over the work. Again, widespread Internet access has fostered the exchange of stories, artwork, and video elaborating on the content of popular copyrighted works. Creative fans may incorporate aspects of the work into user-generated materials that extend the work in directions the initial creator did not intend, or to which the initial creator may object ([30], pp. 30–31). For example, a number of scholars have studied the phenomenon of “slash” fiction, in which followers of popular movies, books, or television programs recast the

relationships in these works to explore the possibilities of homoerotic romances between characters such as DC comics' Batman and Robin, JK Rowling's Harry Potter and Ron Weasley, or Paramount Picture's Captain Kirk and Mister Spock [31]. Copyright holders might approve of such pastiches, or might view them as unwelcome intrusions into the initial author's creative territory, or may even view them as problematic treatments of the material that could impair the commercial value of the work in more conventional settings.

The exclusive rights held by commercial content developers offer a potential deterrent against unwelcome uses of copyrighted content; unauthorized uses of the content can be removed from public circulation, either by the threat of a lawsuit or if necessary by court order. But liberal use of such deterrents may anger or alienate the copyright holder's most enthusiastic customers. Thus, the response of copyright holders to unauthorized derivative use of their commercial works has been varied [32,33]. Some copyright holders will tolerate or even encourage the derivative works of creative followers in order to reap the free promotional benefits of continued enthusiasm for the initial work. Other copyright holders have attempted to deter or suppress such works, using their copyright as a threat against unauthorized uses of the material. Yet other copyright holders have attempted to co-opt fan creativity, allowing specified uses of the works under controlled conditions, all under the background threat of legal action for unapproved uses [34].

Previous commentators have suggested that, at least in the United States and similar jurisdictions, fair use offers a legal haven for fan fiction and similar re-uses of commercially generated content in popular culture [32,33]. The use of such content is frequently transformative, adding significant original expression to the underlying cultural properties, the use is seldom commercial, and seldom displaces the market for the original work—if anything, fan fiction attempts to fill imaginative gaps, and satisfy fan demand, that the creators of the underlying work have left unfilled. One might suppose that this analysis would point in the direction of fair use in the *Uru* diaspora. Popular culture "fanfic" communities bear some resemblance to virtual communities such as the community of the *Uru* diaspora. Although their shared cultural icons may have been drawn from print, broadcast, or media other than the audiovisual representation of virtual worlds, these other communities have also coalesced around a particular creative works developed for commercial audiences.

Yet as I have indicated in my discussion of the four fair use factors, it is unclear how well the fair use arguments advanced for fan fiction apply to use of commercially developed icons to establish communal identity. Unlike the fanfic communities, whose use of commercial properties often tends toward exploring, recasting, extending, or reinterpreting their shared icons, the *Uru* diaspora community was engaged in use of commercial property that tended toward stability for cultural icons, rather than transformation. Fan fiction communities of course also require some degree of iconic stability in order to maintain their identity as a community, often drawing sharp lines between "canon" and "non-canon" depictions of their particular distinguishing works. Drawn—not surprisingly—from religious scriptural classification, such terms denote certified treatments of the work, that much like scripture form the commonly accepted narrative core of fans' community interaction. This balance between dynamism and continuity is to some extent needed in the shared narratives of all living cultures, even when based upon commercial production. Justin Hughes has for example pointed out that society has some interest in a stable meaning for copyrighted properties; this might to some extent counterbalance the social interest in "remixing" or transforming cultural works [35].

However the question posed by the *Uru* diaspora scenario is not so much a question of transforming or re-using copyrighted material to create new, probably derivative works in the manner of a fan fiction community. Fair use analysis for fan fiction and similar user generated content has focused on whether it is fair to incorporate the initial author's work into text, images, audiovisual works, and other works that re-interpret the initial material. Certainly some of this activity will occur in game communities or other virtual societies; the social interaction of *Uru* or *Warcraft* or *Star Wars Galaxies* surely spills over into fan fiction and other re-interpretations. But the central fair use question

disclosed by the history of *Uru* is whether exact or nearly exact reproductions of non-transformative game content should be fair in order to anchor community.

6. Indigenous Communities

In this criterion of stability or cultural preservation, the deployment of virtual world designs as cultural icons to some extent inverts a long-standing conversation regarding cultural appropriation. The denizens of virtual worlds such as *Uru Online* necessarily appropriate copyrighted materials in building community; fan fiction writers, cosplay participants, and other devotees of popular media content do the same. But copyrighted material is not created *ex nihilo*; there is, as C. S. Lewis once observed, no human ability to create intellectual works *de novo*; rather the themes and tropes of new entertainment are always drawn from pre-existing cultural materials ([36], p. 203). Often what seems most novel or interesting about the content of popular entertainment is components that are unfamiliar to the present audience. And often inspiration for seemingly exotic or alien elements of commercial content is drawn from cultures that are geographically or socially removed from the target audience of the final work [37].

The search for novelty from geographically or conceptually foreign starting materials, coupled with the fact that much of the globe's commercial copyright production is sited in developed countries, means that a likely source for inspiration or appropriation is often found in less developed regions or indigenous societies. Similarly, the basis for new commercial content may be drawn from the cultural creations of subordinated groups scattered among the larger consuming population—for example African-American jazz, blues, rock, and hip-hop music [38]. This strategy of mining less familiar cultures moves traditional handiwork or cultural icons into mainstream commercial entertainment. The ethnic groups or indigenous cultures from which such materials originate may in some cases complain that the materials were re-purposed without permission, or in some cases assert that the re-purposing distorts or denigrates the original meaning of the appropriated materials, or in some cases object if they do not participate in revenue generated from the materials. But the appropriated cultural materials are typically designated by copyright law as belonging to the public domain, and so are not subject to copyright or similar proprietary constraints that might prevent their incorporation into new copyrighted works [39].

Such commercial re-purposing of indigenous cultural icons is well illustrated by the widely debated incident regarding the incorporation of New Zealand Maori themes into the *Bionicle* products created by the Danish building brick toymaker Lego [40]. The *Bionicle* project attempted to market a new toy building assembly system by means of an accompanying elaborate narrative; stories incorporating heroes, villains, and designs from the *Bionicle* building system were promulgated by the Lego firm via videos, comic books, and a set of Internet web sites. A central feature of the *Bionicle* marketing plan was to build a user community around the fictional characters and storylines associated with the toys and physical products. This effort was fairly successful, as the product developed a devoted fan user base, who in turn developed their own websites, fan fiction, and discussion groups. Many of the user ideas and enhancements were incorporated by Lego back into the official *Bionicle* product.

However, in creating the product storyline, the *Bionicle* developers incorporated various names and terms that had been lifted from the Maori language, as well as some themes from Maori legend and history. Maori representatives complained to Lego about the use of the Maori terms, asserting that they had cultural significance that was degraded by use out of context, particularly by commercial use out of context. Maori representatives eventually met with Lego representatives to work out an agreement that removed many of the Maori terms from the *Bionicle* themed materials. The conflict has drawn attention for the somewhat ironic attempt to create a brand identification and a product community by using concepts appropriated from existing cultural communities, creating a clash between traditional and virtual communities [40].

Similar commercial borrowing, appropriation, and inspiration drawn from indigenous cultures occurs with some frequency. Were misappropriation to be an available claim under copyright, Lego's

use would very likely meet the fair use test—use of the Maori themes in *Bionicle* was transformative, and unlikely to constitute a market substitute for the original cultural materials. But because indigenous cultural icons are typically ineligible for copyright, protection for such materials comes under a wider and more inchoate international patchwork of protections for “traditional knowledge”—in some cases protection from appropriation is available under national statutes, or may be inferred from the texts of international treaties [41].

That route is not available for virtual communities such as that surrounding the *Uru* materials. Cultural though the materials may be, the images were generated by contemporary commercial ventures, and adopted by a decidedly non-traditional community, leaving them ineligible for inclusion within traditional knowledge. The player community may have in some sense been indigenous to their virtual world, but this is not the type of community traditional knowledge protection is oriented to protect. Indeed, having been appropriated by the community from a corporate entity, the *Uru* to some extent turns the usual problem of traditional knowledge on its head. Control over the materials via copyright is available to the industrial producer, but no countervailing right is available to the virtual indigenous community.

7. Conclusions

Virtual worlds do not occur by happenstance; they are technological artefacts created with a purpose, often a commercial purpose. The business entities that host such artefacts may fail; indeed there is evidence that they may be failing with some frequency, meaning that the *Uru* diaspora will not be an unusual occurrence [42]. In the actual *Uru* diaspora, the game publisher who holds the copyright to the appropriated content has been surprisingly indifferent to the unauthorized uses by former players [4]. But it need not have been, and other owners in other situations likely would not be. Additionally, as discussed above, the Terms of Service for most virtual worlds forbids infringing activity; even without copyright enforcement by the holder of the *Uru* copyrights the unauthorized uses of *Uru* graphics in *Second Life* and other diaspora could prompt action by owners of the diaspora venues to bar the *Uru* migrants from their new places of residence due to ToS violations.

Adoption of iconic graphic elements by on-line gaming communities presents something of a “Catch-22” situation. To the extent that the success of multiplayer games depends upon social networking, that network is necessarily built upon the sounds, graphics, and software that constitute the game, all of which are the subject of copyright. Yet this detailed analysis of the disposition of cultural icons in the *Uru* diaspora demonstrates the antipathy of copyright law to such unauthorized uses of material found in MMORPGs and similar virtual environments. The use of the iconic components of the game by the communities that are built upon those elements is restricted under the current copyright regime. Commentators have argued in favor of recognition of such communal and cultural uses of copyrighted works [33] but the legal system has yet to adopt such arguments, leaving control of virtual cultural icons entirely in the hands of developers, with little regard for the communities that adopt them.

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