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Copies, Clones, and Genre Building: Discourses on Imitation and Innovation in Digital Games

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This article addresses the tension between innovation and imitation in the games industry based on a case study on a cloning conflict. Developing new games necessarily involves adopting existing elements, but recent disputes centering on alleged copying have gained prominence. What are the criteria to delineate legitimate inspiration from cloning? Given the ambiguous copyright situation, the legitimacy of imitation is contested. Drawing on discursive institutionalism, we investigate professionals' discussions around an alleged cloning case. We find that imitation is accepted practice in the industry. Originality can involve making small adjustments to existing games, but practitioners condemn wholesale copying of games. The article suggests that, even beyond the games sector, imitation is a necessary part of innovation. Discourses are important in governing innovation practices in creative sectors.

Keywords: digital games, innovation, originality, imitation, copyright, game design, mobile games, apps, cloning, discourse

Introduction

Throughout the history of game design and development, imitating other games and improving or expanding on them have always been at the core of the industry. From very early on, disputes about the alleged copying of successful game ideas and (supposed) infringements of trademarks and patents have been manifold (Kent, 2001; Tayebi, 2012). For instance, Atari, the publisher of the first commercially successful game, Pong (Atari, 1972), was accused of having stolen the idea of electronic table tennis from

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competitor Magnavox (Kent, 2001). However, the fact that new games build on existing ones has also resulted in the emergence of genres, such as first-person shooters and platform games, and, more recently, as a subgenre of simulation games, farming games. In general, a certain level of imitation is well accepted in the industry; it is even considered a driver of creative development and a promoter of innovation in game design (IGDA, 2003). Nonetheless, several cases of imitation continue to attract attention and provoke vibrant discussions among developers and the gamer community. Going beyond questions of imitation and cloning, these debates bring to the fore understandings of innovation and originality prevalent in the games sector.

In 2010, the small game development studio Vlambeer published a browser-based game called Radical Fishing. It planned to develop an iOS version of the game afterward, but focused first on other browser games. Unexpectedly, in August 2011, the small United States–based developer Gamenauts announced the release of a game called Ninja Fishing, which appeared to be inspired by Radical Fishing. Although the graphics differed considerably, the game mechanics and game play were effectively the same. This story could be retold endlessly with different game titles. For instance, in 1988, Data East sued developer Epyx for copying its game Karate Champ (Technos Japan, 1984), and in 2012, Xio Interactive was accused of making a clone of Tetris (Pajitnov, 1984). Many recent cloning cases have been in the casual and mobile area (Juul, 2010). Examples include Zynga's DreamHeights (2012), which allegedly copied NimbleBit's Tiny Tower (2011), LolApps' Yeti Town (2011), which was accused of copying Spry Fox's Triple Town (2011), the debate around Candy Crush Saga (King, 2012), and Threes (Sirvo, 2014) developer Ashmer Vollmer voicing his discomfort with 2048 (Cirulli, 2014).

Taken together, these cases reveal the continuing lack of clarity in the sector regarding the boundary between inspiration, which is considered instructive, and imitation or plagiarism, which is considered illegitimate. To date, game research has not yet thoroughly investigated where exactly these boundaries are situated. Legally speaking, the boundary is drawn by intellectual property legislation, especially copyright. However, because games have abstract rule systems and mechanics at their core, and copyright merely protects expressions while excluding (abstract) ideas or systems as such, the boundary between inspiration and plagiarism is a contested "gray zone" (Burke, 2003), leaving the criteria for delineating innovation from imitation blurry. Case law also does not provide a clear solution: Although publishers and developers have filed various lawsuits in the past decades, the outcomes have been dissimilar, with judges applying various terms and criteria (Tayebi, 2012). For scholars of copyright and the cultural industries this is a puzzling situation: Because they lack proper copyright protection, games may be copied as soon as they are published—or even earlier. Law and economic theory would assume that this lack of protection would lead to market failure, since innovation is not incentivized. But, in contrast, the games sector is flourishing.

The empirical approach in this article makes this unclear situation amenable to analysis by identifying the different understandings, conventions, and argumentative strategies that game developers mobilized in the controversy around the alleged cloning of Radical Fishing. In this debate, the industry actors articulated their implicit assumptions about originality and innovation. In consequence, the questions we are concerned with here go beyond the individual cases of alleged plagiarism. The findings highlight general notions of innovation and originality in the sector. In other words, by pinpointing a line

between inspiration and imitation, we reveal how the actors perceive these concepts. For example, are small changes to one of the elements of a game sufficient to create a new game, and thus to bring innovation to the medium as a whole? Does innovation necessarily imply originality?

To begin, we provide a short history of imitation in digital games. Then we develop our theoretical and methodological approach, which is grounded in discursive institutionalism. After presenting the findings of the discourse analysis, we conclude with a discussion of the findings and the implications for concepts of innovation and originality in the creative sectors.

The Tension Between Imitation and Innovation in Digital Games

From its outset, two paradoxical narratives have circulated in the games industry. On the one hand, alleged cloning—that is, copying—has been a cause of disputes and debates among game developers and publishers. On the other hand, imitation has always been considered a necessary and accepted part of game development.

The conflicts about the alleged copying started as early as the launch of the first commercially successful game: Pong. In 1972, console manufacturer Magnavox accused Atari of having stolen the idea and technology for electronic table tennis on a television screen from Magnavox employee Ralph Baer (Kent, 2001). This case did not make it to court, as Atari bought a license to exploit Pong for many years to come. In turn, the enormous popularity of Pong caught the attention of competitors, and it turned out to be difficult to protect Pong as intellectual property. This spurred many Pong imitations:

> No sooner had Pong become the hottest innovation in amusement machines than dozens of potential competitors began studying it. . . . Bushnell had entered into an industry in which success spawned imitation, and everybody considered Pong a success, with Pong machines earning $200 per week. There was no way to stop companies from copying it. ⦃Kent, 2001, p. 60⦄

Many similar cases followed. These cases involved developers and publishers accusing other developers or publishers of copying their work, and of infringing the original creator's copyright. As mentioned, in 1988, publisher Data East sued developer Epyx for copying its game Karate Champ (Technos Japan, 1984), and in 2012, The Tetris Company accused Xio Interactive of cloning Tetris (Pajitnov, 1984). Not all disputes made it to court. More recently, there have been many cases of alleged cloning. Some of them have been covered by the media, such as Threes (Sirvo, 2014), and Flappy Bird (Nguyen, 2013), but some of them are also less well known, such as . . . And Then It Rained by Berlin-based indie studio Megagon Industries (2014), which claims its game has been cloned four times.[1]

It is remarkable that some developers have stood on both sides of the fence. For instance, after the conflict around Pong, Atari accused Amusement World of imitating its 1979 game Asteroids (Atari,

[1] Mentioned by Megagon Industries developer Daniel Helbig in the German podcast *Le Brunch: Angriff der Klonkrieger* on July 27, 2014.

1979).And former plaintiff Data East was accused of copying Capcom's (1991) Street Fighter 2 (McArthur, 2013). In other words, the same companies are not always the alleged cloners or original creators. In some cases—for example, with Tetris—the plaintiff won the case; in most of the cases, however, the defendant was deemed right.

Parallel to this history of disputes is a narrative representing the other side of the coin. This narrative involves the prominent and accepted role of imitation in the games sector. It is common practice to develop games by iterating upon existing game ideas—for example, by fiddling with proven game mechanisms and being inspired by successful game designs (Arsenault, 2009; IGDA, 2003; Salen & Zimmerman, 2004). This practice has resulted in the emergence of genres in which a certain proven core game mechanic (e.g., walking around in a three-dimensional environment from a first-person perspective while aiming at objects) is reused and reinterpreted time and time again. This results in the fine-tuning of the genre and its mechanics and conventions, which is boosted by ever-advancing technical possibilities. Sometimes this reuse and reinterpretation prompts the emergence of new genres (Juul, 2010). Several game scholars have traced back such paths of inspiration and visualized them as "family trees" of the genres. Jesper Juul (2010) has presented a graph on the evolution of matching tile games in his book *A Casual Revolution* (see Figure 1), and Raph Koster (2004/2014) has visualized the evolution of two-dimensional shooters in *A Theory of Fun*. Dominic Arsenault (2009) has described the development of the shooter genre, and how the three-dimensional first-person shooter, engendered by technological possibilities, truly became a genre distinct from two-dimensional shooters. These processes of genre consolidation indicate that imitation is generally considered a necessary part of innovation in the games sector—as has been shown for the fashion industry and TV formats (Bechtold, 2013; Singh & Kretschmer, 2012; Raustiala & Sprigman, 2012).

The fact that a certain degree of imitation is common in the sector is also reflected in industry handbooks that advise aspiring game designers on how to learn the profession. These widely used handbooks encourage their readers to get inspiration by playing and analyzing a multitude of games from different genres in order to build a large repertoire of knowledge. They then suggest taking these existing game mechanics—or sometimes entire games—and playing around with them—for instance, by trying to give the game (mechanic) a new twist (e.g., Fullerton, 2008; Salen & Zimmerman, 2004; Schell, 2008).

In offering this type of advice, these books are not alone: The industry's branch association, the International Game Developers Association (IGDA), also acknowledged the high degree of imitation in the sector in its 2003 white paper on intellectual property:

> In today's game design world many people practice the art of . . . stealing and modifying, although some prefer "borrowing and adjusting" or "using and tweaking" or "derivative." You take the best ideas from some other game and you change them around the way you like. (IGDA, 2003, p. 37)

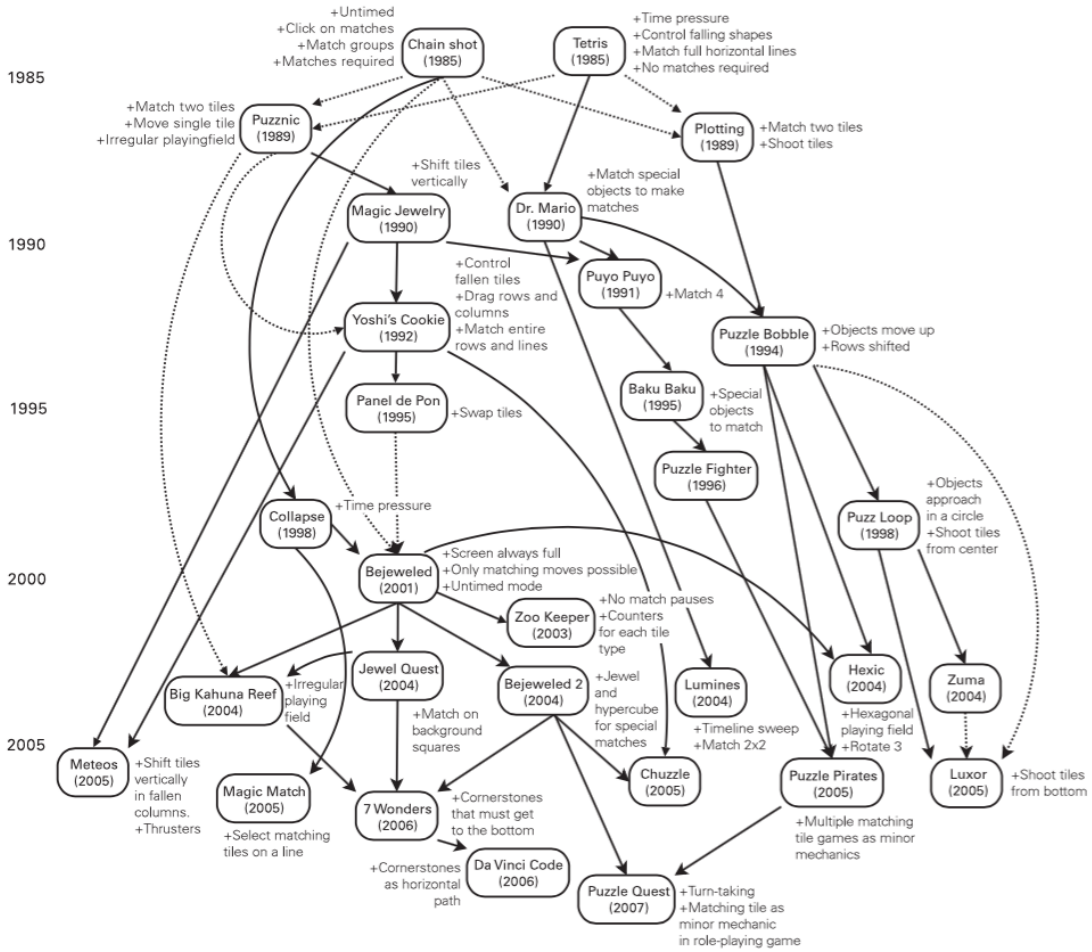

Figure 1. A family tree of matching tile games (Juul, 2010, p. 86).

At the same time, the white paper explains that one should avoid crossing the line and copying too much. However, where exactly this line is drawn legally is not specified. Moreover, the advice remains rather tentative, stating that developers should "consider" giving the original developer "some" credit:

> The most important thing is to avoid plagiarism. One must avoid any outright stealing of other's work. It is not fair to them and you would likely find yourself in trouble eventually. You should also be mindful of giving credit to others where due, although that does not allow you to use their copyrighted property without permission. Even if you were only inspired by someone else's work then consider giving them some credit. (IGDA, 2003, p. 38)

Imitation is thus a well-accepted part of innovation in the games industry, but it is unclear exactly where the line is drawn between accepted inspiration and objectionable imitation. As noted above,

the many conflicts among developers as well as the IGDA guidelines indicate that there *is* a line to cross; a point where being inspired becomes copying or cloning. But in an industry where imitation is an inherent part of innovation, this distinction is a gray area.

The law does not make matters clearer. Intellectual property and copyright legislation do not offer an easy answer to this question, because the complicated nature of video games makes it difficult to define exactly where to draw the line. This is reflected in the case law, where outcomes greatly differ and judgments draw on varying arguments. For example, with Tetris, the plaintiff won the case; in many other cases, however, the defendant was deemed right (McArthur, 2013).

Digital games are composed of many elements—such as programming code, graphical elements, interface elements, sounds, and game mechanics—many of which cannot be grasped by merely taking a look at the game, to say nothing of the complicated interplay between them (Lastowka, 2013). For example, a game designer might copy parts of an existing game (e.g., a rule system or interface design) while adding new, original parts—or while taking these parts from yet another game (e.g., the graphics). It is, then, hard to define the extent to which the whole work was copied.[2] Moreover, whereas it might still be relatively easy to recognize the graphics or source code when they have been copied, particularly in the case of the interactive rule system, it can be difficult to define whether there is any intellectual property infringement. This is due to the fact that the rule system only becomes manifest in interaction with a player, which is unique every time the game is played. Because of this unique experience, a game can hardly be considered a fixed expression. Since copyright law protects fixed expressions as opposed to abstract ideas, protecting the rules of a game as a copyrighted work poses a challenge (Boyden, 2011; Lastowka, 2013).

Thus, there is remarkable legal uncertainty when copyright law is applied to digital games. The generally leaky and unstable nature of copyright is even reinforced in this sector through the characteristics of its creative products. The multifaceted and interactive character of digital games allows for considerably more leeway when interpreting the boundary between legitimate inspiration and plagiarism than is present in other sectors.

This gray zone prompts questions of what originality and innovation mean in the rapidly growing games sector. Several game scholars and well-known game designers have voiced their unease with the degree of originality in the industry, especially when it comes to game principles or game play (Abbott, 2011; Fullerton, 2008; Salen & Zimmerman, 2004; Schell, 2008). They have claimed that the same game mechanics are used over and over again, which causes a general lack of innovation.[3] However, as noted above, these scholars and practitioners have also encouraged the reuse of existing game mechanics as a means of exercise and inspiration. Arsenault (2009) describes this practice as "a crucial tradition in game

[2] A historical overview of this complexity and the challenge it poses for judges is given by Tayebi (2008).

[3] Many authors even attribute the industry crisis 1983–1984 to the lack of originality in the sector (Herman, 1994; Kent, 2001; Kline, Dyer-Witheford, N., & De Peuter, 2003).

production: the imitation of a model game, either as a 'clone' of a famous game for cash-in opportunism, or as a genuine attempt at improving a formula" (p. 164.

The question that Arsenault and others, however, leave open is where to draw the line between a clone and a genuine attempt. Whereas copyright and regulation research would address this gap as a problem, we take this situation as an instructive starting point for an investigation of game professionals' understandings of creativity and innovation. When is a developer contributing to the development and innovation of the genre, and when is he or she ripping off someone else's hard work? How do developers deal with this tension between inspiration and innovation? By addressing these questions, this article aims to contribute to the broader understanding of originality and innovation in the games industry.

In asking these questions, we depart from most of the research in the field of imitation and digital games. This research tends to focus on piracy, property rights on user-generated content, and virtual property, and it is thereby mainly interested in the relationship between the player and the developer/publisher (e.g., Poor, 2012; Postigo, 2008; Reunanen, Wasiak, & Botz, 2015). Instead, we concentrate on shared understandings and conventions that govern the relationship *between developers*. In this way, we gain more insight into not only games as cultural artifacts but the dynamics within the community of game developers and the game sector as a creative industry.

Theoretical Perspective: Discourses and Ordering

To investigate these shared and contested understandings of originality and innovation in the games sector, we turn to a perspective grounded in neoinstitutionalist approaches. Because copyright law neither resolves nor regulates the tension between imitation and innovation, this perspective allows us to investigate whether the sector is establishing and negotiating its own set of conventions and routines with regard to the legitimacy of imitation. Institutions are traditionally regarded as routinized forms of action that provide an orientation for individuals who seek modes of action that conform to society (Durkheim, 1895/2006). In this view, institutions are understood as a reality that is external to individual action; they are thus static and reproductive. Rational choice institutionalism understands institutions as structures of incentives in which rational actors pursue their preferences by following a "logic of calculation" (see, e.g., Ostrom, 1990); historical institutionalism defines institutions as regularized patterns and routinized practices that have developed over time according to a "logic of path-dependence" (e.g., Hall & Taylor, 1996); finally, sociological institutionalism defines institutions as socially constituted and culturally framed rules and norms in which social agents act according to a "logic of appropriateness" (Berger & Luckmann, 1966; DiMaggio & Powell, 1991). In summary, all three neoinstitutionalist approaches frame institutions as static entities that determine or shape human action according to one specific logic while only allowing change initiated by external influences, such as exogenous shocks (Schmidt, 2010).

This classic, static conception of institutions—which ascribes agency to external factors—has been subject to critique in recent years (Boltanski & Thévenot, 2006; Schmidt, 2010). Critical authors argue that the presupposition of an established institutional order should be abandoned and that, instead, empirical investigations should focus on the ways norms and shared understanding emerge and evolve—that is, how normative orders are achieved and constantly reified (Wagner, 1994).

When investigating coordination on the games market, a focus on stable, external institutions proves to be particularly problematic. Game developers are constantly struggling with normative expectations regarding their behavior. As we have noted, the tension between legitimate inspiration and plagiarism is situated at the center of game design and development. This is reinforced by the rapidly changing nature of the game industry on the one hand, and the unclear legal framing of games in copyright law on the other. In consequence, the external or institutionalized rules that could guide actors' behavior in this field are remarkably weak. The standards for legitimate behavior are debated anew in every specific case of game cloning.

Therefore, we base our argument on conceptions from political science that have recently emerged around the notion of "discursive institutionalism" or the "fourth new institutionalism" (Schmidt, 2010). This loosely connected theoretical strand in political science departs from the three previous "new institutionalisms" in that it perceives institutions not as static entities but rather as dynamic constructs of meaning that are subject to change. This conceptualization of institutions gives insights into institutional change by focusing on the normative orientations and preferences of actors that interact discursively in institutional contexts. Institutions, then, are not external rule-following structures but rather serve "both as structures that constrain actors and as constructs created and changed by those actors" (Schmidt, 2008, p. 314). Discursive institutionalism proposes that scholars should empirically address phenomena of institutional construction by focusing on discourses between actors—on the "ideas, concepts, and categories through which meaning is given to phenomena" (Hajer, 1993, p. 45). In this view, discourses frame problems; "they distinguish some aspects of a situation rather than others" (Hajer, 1993, p. 45). Hence, discourses construct problems, but they also form the context in which phenomena are understood. As such, they are systems of meaning that order the production of conceptions and interpretations of the social world in a particular context (Lynggard, 2007).

These considerations form the basis for the methodology we deploy to empirically understand informal coordination on the games market: By studying controversies between game developers about alleged cases of cloning, we aim to shed light on the mutual expectations in this sector. What are—applying Hajer's perspective on the object under investigation—the ideas, concepts, and categories through which meaning is given to the widespread phenomena of imitation and cloning in the games industry? We understand these mutual expectations as informal norms that become institutionalized in discourse and thus provide an orientation for game developers' future actions in game design. At the same time, these institutionalized norms are not static and can be debated anew in each subsequent case of plagiarism. However, we propose that the arguments and expectations brought forth are similar in most cases of plagiarism. Thus, the articulated informal norms can be assumed to give guidance to developers in an unstable legal environment.

Method

Various disputes have arisen within the games community when it comes to drawing the line between legitimate inspiration and plagiarism. One case of asserted plagiarism, already mentioned in the introduction, has provoked intense discussions between game designers and developers: the case of Ridiculous Fishing and its alleged clone Ninja Fishing.

Ridiculous Fishing (Vlambeer, 2013) is a game for Apple's mobile touch device iPad, developed by Dutch indie developer studio Vlambeer and released in 2013. Three years earlier, in 2010, Vlambeer published a Flash-based game called Radical Fishing (Vlambeer, 2010). This game is about controlling a fisherman casting a fishing rod. By controlling the device, the player tries to avoid touching the fish while the hook sinks, whereas when catching a fish, the player tilts the device to catch as many fish as possible en route to the surface. When they are afloat, the fish fly into the air, where the player then has to shoot them in order to score.

Although it sold its Flash game to a Web gaming hub soon after publishing it, Vlambeer retained the rights to develop an iOS-version for Apple devices (Pitts, 2013). Because the developers needed money to produce the iOS version, they concentrated on developing several other browser games before starting to work on the iOS version, which was then called Ridiculous Fishing. Notably, Vlambeer kept its idea of developing an iOS version a secret (Knight, 2012).

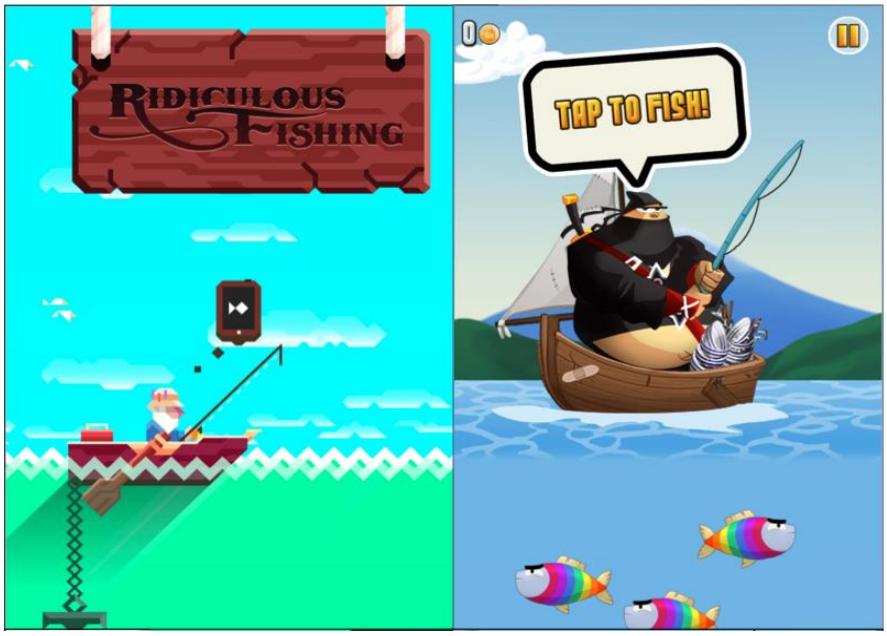

Figure 2. Comparison of art style of Ridiculous Fishing and Ninja Fishing. Source: Screenshots by authors.

Unexpectedly, in August 2011, the United States–based indie developer studio Gamenauts announced the release of a similar version of the game entitled Ninja Fishing. The underlying fishing mechanic is the same as in Radical Fishing. However, the graphics are different; the gun is replaced by a

sword, and instead of shooting the fish, the player slices the fish. Additionally, the fisherman was replaced by a ninja (see Figures 2 and 3).

The announcement of Ninja Fishing's release took the original developers completely by surprise, according to a blog entry by developer Rami Ismail from Vlambeer (Ismail, 2011). After reaching out to Gamenauts and asking it to delay the release until Vlambeer had finished its iOS version of the game, Gamenauts' founder Stanley Adrianus declined. However, he said that Gamenauts would mention Vlambeer's original in the credits as their source of inspiration. Gamenauts released Ninja Fishing in August 2011 supported by the App Store and quickly soared to the top 10 app list, whereas Vlambeer was still in the beginning of the development process of its iOS game Ridiculous Fishing (Jones, 2011; Rose, 2013).

Vlambeer knew it had little chance of success if it sued Gamenauts, because case law had demonstrated that mechanics are difficult to protect by intellectual property legislation. But after a period of discontent, Vlambeer decided to continue with the development of Ridiculous Fishing anyway (Pitts, 2013). The iOS game was finally released in March 2013. It was well received by iOS consumers and was the highest-rated iOS game in April 2013. Apple made Ridiculous Fishing its iPhone game of the year and also awarded it the Apple Design Award in 2013 (Pitts, 2013; Rose, 2013).

In addition to its high visibility among game developers, this conflict provides an instructive case study because it epitomizes the tension between imitation and innovation. Is taking the idea of a competitor's game and changing the artwork legitimate behavior in this industry? Is it okay to "port" a certain game idea to another platform—that is, to make it accessible for other target groups? What are the criteria for innovation and originality? Where is the line between legitimate inspiration and plagiarism? In this conflict, game developers mobilized their general expectations and understandings with regard to innovation and originality to support their claims. The mobile and casual games market is especially vulnerable to these kinds of conflicts because these games are typically based on relatively simple game ideas that are easy to grasp and to copy.

The game developer community actively communicates in online forums. Various websites and platforms provide news, reviews, and journalistic articles about games and offer opportunities for community members to exchange opinions on games and issues in game design. We based our analysis on data derived from one of these websites. Gamasutra focuses on all aspects of game development, such as programming, art, audio, design, and production. The website was founded in 1997 and is hosted by the London-based media company UBM TechWeb. It is the online sister publication to the print magazine *Game Developer*, which was closed in 2013. Gamasutra provides games news, features, and critical essays by developers and blogs as well as a job switchboard. It is a key site for professional game development worldwide.

Figure 3. Comparison of fishing sequence in Ridiculous Fishing (left) and Ninja Fishing (right). Source: Screenshots by authors.

The audience of Gamasutra consists of professional and aspiring developers, businesspeople, and game scholars. Articles can be filtered by game types such as console, social/online, or independent games or by profession types, which include programming, art, audio, design, production, and marketing. Articles and comments on articles are of a high quality due to a strict set of publishing rules. The comment posting terms and conditions require users to stay on topic, to be respectful to other users, and to use full names when commenting. The rules also ask for comments that add substantial thoughts to the discussion. The strict comment policy is reflected in the high quality of comments and the absence of the kind of hostile interactions that occur on other websites with looser rules—even if discussions become quite emotional at some points. Accordingly, its relevance and the high quality of articles and comments make the website a solid source of data for the analysis.

Data were gathered by searching for articles that were tagged with the keywords *ridiculous fishing* and *ninja fishing*. The search algorithm included news articles, features, and blog articles. All the matching results were reviewed according to their relevance, meaning that articles that did not have one of the two concerned cases as their main topics were excluded. This selection process resulted in a data set of seven articles and 247 comments. The articles and the comments were manually scanned for statements regarding the criteria that could define the boundary between legitimate inspiration and plagiarism. The findings include arguments that developers bring forth to define innovation and plagiarism in technical terms in the specific case. They also include more general statements on perceptions and

expectations of creativity and coexistence on the games market that were classified by overall frames. These frames correspond to the arguments that discussants used to underline their view and explain their perception. This includes, for example, the conflicting views on whether it is the market that determines the quality of a game or the creative vein of the game designer, or whether imitation actually means progress or regression for the games industry as a whole. The frames were identified after an initial sample of half of the statements. Consequently, we incorporated statements into the data set that (1) made a clear assertion on how legitimate inspiration and/or objectionable plagiarism can be defined and (2) indicated understandings and perceptions of creativity or made an assertion on what the interplay of imitation and innovation in the games industry should look like. This selection process resulted in 193 statements.

Findings

Where to Draw the Line?

The discussions on Gamasutra revealed dissent about the legitimacy of the cloned game Ninja Fishing. Some discussion participants indeed argued that Ninja Fishing has its own originality. They mostly referred to the art style, which had been changed. More important, they pointed out the minor changes that were made in Ninja Fishing, such as the original fisherman is replaced by a ninja, and the game included a slicing mechanic that substitutes the original game's gun with a sword:

> Ninja Fishing actually did include some innovations: the art style is different, and more mass market than the original Radical Fishing (which looks . . . ahem . . . shitty), and they included a slicing mechanic (which is lifted from Fruit Ninja and a number of iOS games). These are small, but they are technically innovations. (Commentator AS)

Here, the different art style and the deployment of a slicing mechanic were regarded as innovations. This viewpoint suggests that a game can be considered innovative when it merely innovates on the stylistic level and that an improvement in the mechanics or the technology is not required.

However, most of the commentators argued that Ninja Fishing is not original enough. Developers distinguished between the copying of game mechanics and the copying of a game as a whole:

> There is a certain granularity of copying that is acceptable: making a cartoon about a mouse is OK, but when you make him look exactly like the mouse, or give him the name Mickey Mouse, then that's infringement. I think my argument that copyright should extend to game mechanics draws the line of granularity at copying a whole work of game design. I am most definitely against patenting or copyrighting individual mechanics. The difference I am trying to draw here is that we still need a free marketplace of ideas from which new games can grow, but protecting innovators against wholesale ripoffs is a good thing. (Commentator AS)

Whereas most developers agreed that core game mechanics should be free to copy, it was obvious that distinguishing a single mechanic from the whole game is especially difficult in this case, because the entire game is principally based on the specific fishing mechanic itself and does not include many elements that go beyond this:

> I think the problem (and main source of confusion) here is that there is very little that can be called as characterizing the game except the peculiar fishing mechanic itself. It is also true that at first sight it would seem that the iPhone game is simply a carbon copy of the first with different graphical assets. (Commentator LS)

What all the statements that tried to define the boundary between legitimate inspiration and plagiarism have in common is the underlying expectation that game mechanics should be free to use, whereas wholesale or one-to-one copies of games should not be tolerated.

Notions of Creativity and Innovation

We found several perceptions of creativity and innovation. Developers drew on arguments from very different angles to determine the conditions that constitute a good game. Some developers emphasized the importance of the market—and, hence, of the consumer—in determining the quality of a game. Thus, a good game corresponds to the logic of the market and satisfies demand by bringing fun to the consumers:

> I know plenty of businesses that are interested in more than just profiting. Many game designers are in the business of making games to entertain their fans, profiting off that is secondary to their primary goal. These people are not soulless individuals or heartless monoliths. They seek a profit because it allows them to do what they truly want to do, entertain others. (Commentator EZK)

In line with this, Ninja Fishing was regarded as a legitimate copy by a few commentators, because Gamenauts found a novel idea on the Internet and wanted to bring the same experience to iOS devices. This, according to the following commentator, is not a crime or bad behavior, but rather "good business":

> What Gamenauts did was find a game they liked that was only available on the browser. They saw there was no similar game on the iPhone and no indication that that game was coming to the iPhone. So they used their considerable resources . . . and made it happen. They saw an untapped market and tapped it. That is not unethical. That is good business. (Commentator EZK)

Developers that argued from this perspective perceived competition on the market as the main force that prompts creativity.

On the contrary, a considerably bigger group of developers defined creativity by setting it apart from mere responses to market needs. These developers did not conceive of game design and their industry as a market but rather as art: "[Game design] is an art, not a science, and as such every designer brings their own personal touch to a project."

Sharing as Part of Innovation

Many comments described game designers as a community characterized by a culture of sharing:

> Gamenauts is a small independent studio ripping off a game by another small independent studio, which released their game to the public not as a way to earn fortune, but so as to share their idea with others. Simply put, the independent games community thrives in the sort of collaborative environment Radical Fishing was released in. . . . it's hard to sit in an apartment all day working on ideas by yourself. You need to share them with those around you because that's where your energy comes from. . . . Independent games are completely dependent upon the free and honest exchange of ideas for the benefit of everyone involved. The existence of companies like Gamenauts forces indie developers to hold their cards close to their chest to avoid getting their ideas stolen from them—which, in turn, stifles innovation even further. The release of Ninja Fishing is a clear statement from Gamenauts: "If you're going to come up with a fun new game, and you don't profit off it immediately, it's up for grabs." I certainly don't want to live in a world like that. (Commentator EJ)

Sharing ideas with the community is not only assumed to be a common practice for every indie developer; it is, in fact, the driving force behind innovation, according to the commentator. This view especially touches on the difficult balance that game developers have to achieve: guaranteeing the free flow of ideas to keep the industry thriving while simultaneously financially profiting from their own game ideas.

Imitation as Part of Innovation

In general, most discussion participants agreed that imitation is a crucial practice in the sector, arguing, for example, "the game industry is built on the backs of slightly modified clones." They emphasized that borrowing ideas is "the driving mechanism of innovation in the games." The comments referred to the historical development of the games industry and argued that there would "only be one FPS [first-person shooter], one city builder, one real time strategy game" if copying was not allowed. In that vein, the commentators acknowledged that the building of genres resulting from copying other developers' games has always been the driver of innovation in the industry: "After all, what is a genre but a whole bunch of clones with small differences?" However, the discussants also emphasized that "it would be cost prohibitive for all but the most powerful to create new work." Hence, the developers admitted that they "all are inspired by the work of others and to pretend otherwise would be hypocrisy at best."

As long as a clone is not a one-to-one copy of the original game (referring to graphic assets, mechanics, and sound), it is able to advance a genre, and therefore imitation is preferable to any sort of imposed control:

> In the casual game industry, which is where Gamenauts cut its teeth, cloning is rife, but it has produced some real gems that have advanced the genre, as well as a whole slew of just great fun to play games that game players around the world love. So as long as the graphics and mechanics (and sound) aren't copied 1:1 (like some well known iOS rip offs) I personally don't have a problem with it and would hate to see more controls put in place to stop it. (Commentator JB)

According to this line of argumentation, and abstracting from the concrete example of Ridiculous Fishing, innovation does not necessarily have to mean that a game is based on a unique and original idea; it can also be legitimate to remix elements from different games. Copying mechanics and remixing is generally regarded as a way to spread ideas among different platforms and thus promote innovation in the whole games sector.

Ethical Guidelines Instead of Legal Regulation?

When discussing the role of law in ensuring or circumventing innovative processes, most of the commentators agreed that stronger legal protection—contrary to conventional wisdom—is not desirable, because it would only cause "all kinds of legal headaches" and would mean "shooting ourselves in the foot," because the basic copying of game mechanics is assumed to be conducive to creative innovation. An additional argument here is that protecting game mechanics would especially impede indie developers' creativity, because they would not have the financial resources at their disposal to buy licenses. Legal regulation was regarded as an impediment to innovation. Instead, the developers called for openness toward copying, because it promotes innovation and the progress of the games industry.

Developers did not argue for more legal measurements to prevent cloning, albeit a few did suggest social norms that can keep the games industry an honest sector where the credits for creative ideas or hard work go to the right people. Concerning developer ethics and their role in innovative processes, several normative expectations emphasize the importance of decency as a constitutive principle of coexistence in the community:

> I'd prefer if someone was so inspired and wanted to make a game, copied or incredibly similar to mine—they would have the decency to mention it to me first. There is no need to be shady, least of all non-crediting. I just think that the line between being a dickhead cloner, and an actual homage/honour/innovation/inspiration/flattery/etc is pretty obvious, at least when communication is involved, mandatory. . . . Awareness, credit, and accountability are good things if we want growth and ACTUAL innovation. (Commentator SB)

Communication seemed to be important for several commentators, because they proposed that individual developers should ask the original developers for permission if they plan to copy elements of the game: "I think contacting the original inspiring developers is a good first step. At least asking them what they think, if they are planning something to move on." According to many commentators, referencing the source of inspiration is a common normative expectation: "In the absence of copyright protection, what should game designers do? ALWAYS CREDIT YOUR GAME DESIGN INSPIRATIONS. Educate the public on the inspirations behind other games." Others even went further and proposed "financial incentive[s]" or "royalties" for the original authors when someone wants to copy the whole game:

> That said, my article doesn't call for copying to be impossible at all, I'm just calling for SOME protection being offered in the form of royalties to the original creators if someone wants to rip off an entire game, wholesale. I'm also calling for some protection so that the creator is allowed to be the first to commercially profit from the game. (Commentator AS)

As a strategy to cope with cloners, another commentator called for a "cultural change" instead of taking legal action. Some commentators regarded awareness raising as a reasonable strategy to sanction cloners who cross the line: "Spread the facts and let the morality of the consumer help out some. It may not do much but spreading facts and information is never a wrong thing to do." To summarize, instead of advocating for stronger legal protection, the commentators emphasized morality and a sense of community. They would rather build on a broader set of informal tools to reveal illegitimate behavior than take legal action.

When it comes to defining innovation in game development, on the one hand, developers agreed that single game mechanics are and should remain free for everyone to copy. On the other hand, game practitioners disapproved of the exact copying of entire games by other developers.

In sum, innovation can take place on different levels—for example, by changing the mechanics and rules of the game but also by changing the graphics. However, in the latter case, commentators believed that developers should also change some of the game play to prevent the game from being a "carbon copy" of the mechanics, or a "reskin." Furthermore, the objectionable wholesale copying of games should be regulated by norms and community standards rather than by more legal protection, according to most commentators on Gamasutra.

Discussion

Cases of conflict within the games sector such as the one around Ridiculous Fishing bring implicit underlying values about imitation and innovation to the fore. Statements made by the commentators go beyond this single case as they indicate where the line is drawn between inspiration and imitation. Furthermore, they reflect notions of originality and innovation among game practitioners. Although a single discourse analysis does not provide complete answers to these questions, it can contribute to our understanding of these concepts.

The interplay between and mutual dependence of imitation and innovation in the games industry is reflected in the comments: In this sector, to a great extent, innovation is spurred by imitation. In this respect, the findings of the discourse analysis correspond to handbooks and industry guidelines of the IGDA as well as Arsenault's (2009) statement that imitation is a crucial practice in the sector. Most of the commentators argue that if copying game mechanics were not possible, then creativity—and, consequently, the development of the whole games industry—would stagnate. In other words, innovation can be found in small changes as much as in major leaps.

It seems, however, that making changes only in graphics and leaving the rule system of the game untouched—that is, making a so-called reskin, is considered too much imitation. In the view of the commentators, making a reskin does not suffice for a game to be original or innovative, even if it is legally difficult to prove any copyright infringement. In the case of Ninja Fishing, opinions differed about whether this game was a mere reskin or it involved actual small-step innovation with regard to the mechanics. But in general, reskinning is condemned by game developers. As the commentators are aware of the legal difficulties, and moreover fear that more legal protection would backfire on creativity, they would rather respond to these uncertainties with stronger norms and community standards, such as asking for permission. This corresponds to the IGDA's guidelines to credit original developers in cases where developers were heavily inspired by other developers.

Most game scholars and handbook authors go beyond single cases of cloning and address the role of imitation for the sector in its entirety. Although they acknowledge imitation as a part of innovation, they also express a general dissatisfaction with the level of innovation in the sector when it comes to game play and game mechanics. In other words, although they encourage being inspired by existing games, they also emphasize that a certain newness should be added, and they are generally disappointed by the lack of innovative game play in the games sector. Some authors regard the current state as commercially dangerous; they do not consider the games industry a healthy sector due to the number of "repetitive, derivative" (White, 2009), whereas others consider it a creative crisis (Fullerton, 2008; Salen & Zimmerman, 2004). This broader scope is less extensively reflected in the Gamasutra comments, as they are mostly concerned with the case of Ridiculous Fishing and the consequences for individual developers rather than the sector as a whole.

Conclusion

This article addresses the tension between innovation and imitation in the games industry. In this sector, they have always been siblings. The development of new games necessarily involves adopting mechanisms and elements from existing games. In recent years, however, disputes around alleged cases of cloning have risen to prominence, especially in the mobile sector.

Our investigation of these controversies has demonstrated that the tension between imitation and innovation is not easily resolved. There is no clear-cut line between legitimate inspiration and objectionable cloning. The findings suggest that imitation is generally considered a common practice in the games industry. Developers acknowledge that innovation is indeed spurred by imitation, not hindered. The emergence and consolidation of game genres would be impossible without a certain degree of imitation.

From the neoinstitutional perspective applied here, imitation can be considered an institution in the sector: It is a generally accepted practice, and even a shared, mutual expectation among developers. But the acceptance among game developers is limited. Obvious one-to-one clones are condemned; a mere change in graphics is also not considered legitimate.

These findings on innovation have implications that go beyond the games sector. With regard to the regulation and framing of innovation, law is not the only mechanism that regulates innovation practices in creative sectors. Building on discursive institutionalism, we have argued that the industry debates about creative practices and products are a relevant source of evaluation. Consequently, what is considered legitimate is not only simply determined by copyright provisions; it is negotiated and consolidated in discursive spaces. Given the complicated situation of copyright protection in the games industry, discursive regulation is particularly prominent in this sector. But since our findings accord with studies on the self-understanding of creators and processes of community formation in other sectors (Raustiala & Sprigman, 2012; Silbey, 2014), it seems plausible that discourses and their framing of creative work are indeed an important source of evaluation and regulation throughout the creative industries.

One of the key frames we have identified is that imitation is common practice within the industry. The games sector reveals something that is possibly true for all creative sectors: Imitation is always an inherent part of innovation. Building something original and innovative is not about building something entirely new from the ground up; it is about the creative combination of many known and a few unknown elements into a creative work that facilitates new experiences. Thus, copies, clones and genre building are not antagonists; instead, they are necessary ingredients for an innovative sector. Imitation and innovation are two sides of the same coin.

References

Abbott, M. (2011). It's a B+ world [Web log post]. Retrieved from http://www.brainygamer.com/the_brainy_gamer/2011/07/its-a-b-world.html

Arsenault, D. (2009). Video game genre, evolution and innovation. *Eludamos. Journal for Computer Game Culture*, *3*(2), 149–176. Retrieved from http://www.eludamos.org/index.php/eludamos/rt/printerFriendly/vol3no2-3/125

Atari. (1972). Pong [Video game, arcade]. Sunnyvale, CA: Atari.

Atari. (1979). Asteroids [Video game, arcade]. Sunnyvale, CA: Atari.

Bechtold, S. (2013). The fashion of TV show formats. *Michigan State Law Review.* doi:10.2139/ssrn.219166.

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge.* Garden City, NY: Doubleday.

Boltanski, L., & Thévenot, L. (2006). *On justification: Economies of worth.* Princeton, NJ: Princeton University Press.

Boyden, B. E. (2011). Games and other uncopyrightable systems. *George Mason Law Review*, *18*(2), 439–479.

Burke, C. (2003). The gray zone: Inspiration vs. plagiarism. In International Game Developers Association (Ed.), *Intellectual property rights and the video game industry* (pp. 77–83). Mt. Royal, NJ: IGDA.

Cirulli. (2014). 2048 [Video game, Android]. Cirulli

Capcom. (1991). Street Fighter 2 [Video game, arcade]. Osaka, Japan: Capcom.

DiMaggio, P., & Powell, W. W. (1991). Introduction. In W. W. Powell & P. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 1–38). Chicago, IL: University of Chicago Press.

Durkheim, É. (2006). *The rules of sociological method: And selected texts on sociology and its method.* Basingstoke, UK: Palgrave Macmillan. (Original work published 1895)

Fullerton, T. (2008). *Game design workshop: A playcentric approach to creating innovative games.* Burlington, MA: Elsevier/Morgan Kaufmann.

Gamenauts. (2011). Ninja Fishing [Video game, iOS]. San Francisco, CA: Gamenauts.

Hajer, M. (1993). Discourse coalitions and the institutionalization of practice: The case of acid rain in Great Britain. In F. Fischer & J. Forester (Eds.), *The argumentative turn in policy analysis and planning* (pp. 43–76). Durham, NC: Duke University Press.

Hall, P. A., & Taylor, R. C. R. (1996). Political science and the three new institutionalisms. *Political Studies*, *44*(5), 936–957.

Herman, L. (1994). *Phoenix: The fall and rise of home videogames.* New York, NY: Rolenta Press.

IGDA (International Game Developers Association). (2003). *Intellectual property rights and the video game industry*. Mt. Royal, NJ: Author.

Ismail, R. (2011). Ridiculous fishing. Retrieved from http://www.vlambeer.com/2011/07/21/ridiculous-fishing/

Jones, E. (2011, August 15). Radical plagiarism: The ethical lessons of the Gamenauts controversy [Web log post]. *Gamasutra*. Retrieved from http://www.gamasutra.com/blogs/EvanJones/20110815/8195/Radical_Plagiarism_The_Ethical_Lessons_of_the_Gamenauts_Controversy.php

Juul, J. (2010). *A casual revolution: Reinventing video games and their players.* Cambridge, MA: MIT Press.

Kent, S. L. (2001). *The ultimate history of video games.* New York, NY: Three Rivers Press.

King. (2012). Candy Crush Saga [Video game, various platforms]. Stockholm, Sweden: King.

Kline, S., Dyer-Witheford, N., & De Peuter, G. (2003). *Digital play: The interaction of technology, culture, and marketing.* Montreal, Canada: McGill-Queen's University Press.

Knight, Z. (2012, August 8). Back and forth cloning battles with Zynga continue with new EA chapter [Web log post]. *Techdirt*. Retrieved from https://www.techdirt.com/articles/20120806/19331419949/back-forth-cloning-battles -with-zynga-continue-with-new-ea-chapter.shtml

Koster, R. (2014). *A theory of fun for game design* (2nd ed.). Sebastopol, CA: O'Reilly. (Original work published 2004)

Lastowka, G. (2013). *Copyright law and video games: A brief history of an interactive medium*. Manuscript. SSRN E-Library. doi:10.2139/ssrn.2321424

LolApps. (2011). Yeti Town [Video game, iOS]. Hong Kong: 6waves.

Lynggaard, K. (2007). The institutional construction of a policy field: A discursive institutional perspective on change within the common agricultural policy. *Journal of European Public Policy*, *14*(2), 293–312.

McArthur, S. C. (2013, February 27). Clone wars: The five most important cases every game developer should know [Web log post]. *Gamasutra*. Retrieved from www.gamasutra.com/view/feature/187385/

Megagon Industries. (2014) . . . And Then It Rained [Video game, iOS]. Berlin, Germany: Megagon Industries.

Nguyen, D. (2013). Flappy Bird [Video game, various platforms]. Vietnam: .GEARS.

NimbleBit. (2011). Tiny Tower [Video game, various platforms]. Poway, CA: NimbleBit.

Ostrom, E. (1990). *Political Economy of Institutions and Decisions: Governing the commons: The evolution of institutions for collective action.* Cambridge, UK: Cambridge University Press.

Pajitnov. (1984). Tetris [Video game, various platforms]. Various publishers.

Pitts, R. (2013, April 24). Cloned at birth: The story of Ridiculous Fishing. [Web log post] *Polygon.* Retrieved from http://www.polygon.com/features/2013/4/24/4257958/cloned-at-birth-the-story-of-ridiculous-fishing

Poor, N. (2012). When firms encourage copying: Cultural borrowing as standard practice in game spaces. *International Journal of Communication*, *6*, 689–709. doi:1932-8036/20120689

Postigo, H. (2008). Video game appropriation through modifications attitudes concerning intellectual property among modders and fans. *Convergence: The International Journal of Research Into New Media Technologies*, *14*(1), 59–74. doi:10.1177/1354856507084419

Raustiala, K., & Sprigman, C. (2012). *The knockoff economy.* Oxford, UK: Oxford University Press.

Reunanen, M., Wasiak, P., & Botz, D. (2015). Crack intros: Piracy, creativity, and communication. *International Journal of Communication*, *9*, 798–817.

Rose, M. (2013, March 8). Ridiculous fishing: The game that nearly ended Vlambeer. *Gamasutra*. Retrieved from http://www.gamasutra.com/view/feature/188097/ridiculous_fishing_the_game_that_.php

Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals.* Cambridge, MA: MIT Press.

Schell, J. (2008). *The art of game design: A book of lenses.* Burlington, MA: Morgan Kaufmann.

Schmidt, V. A. (2008). Discursive institutionalism: The explanatory power of ideas and discourse. *Annual Review of Political Science*, *11*(1), 303–326. doi:10.1146/annurev.polisci.11.060606.135342

Schmidt, V. A. (2010). Taking ideas and discourse seriously: Explaining change through discursive institutionalism as the fourth new institutionalism. *European Political Science Review*, *2*(1), 1–25.

Silbey, J. (2014). *The eureka myth: Creators, innovators, and everyday intellectual property.* Stanford, CA: Stanford University Press.

Singh, S., & Kretschmer, M. (2012). Strategic behaviour in the international exploitation of TV formats – A case study of the Idols format. In K. Zwaan & J. de Bruin (Eds.), *Adapting Idols: Authenticity, identity and performance in a global television format* (pp. 1–26). Farnham, UK: Ashgate.

Sirvo. (2014). Threes [Video game, iOS]. Sirvo.

Spry Fox. (2011). Triple Town [Video game, various platforms]. Seattle, WA: Spry Fox.

Tayebi, A. (2012, February 10). Interactivity, immersion and innovation: Can videogames be adequately protected by copyright law? [Web log post]. Retrieved from https://aryatayebi.wordpress.com/2012/02/10/interactivity-immersion-and-ideas-can-videogames-be-adequately-protected-by-copyright-law/

Technos Japan. (1984). Karate Champ [Video game, arcade]. Tokyo, Japan: Data East.

Wagner, P. (1994). Dispute, uncertainty and institution in recent French debates. *Journal of Political Philosophy*, *2*(3), 270–289. doi:10.1111/j.1467-9760.1994.tb00025.x

Vlambeer. (2010). Radical Fishing [Browser game]. Utrecht, The Netherlands: Vlambeer.

Vlambeer. (2013). Ridiculous Fishing [Video game, iOS]. Utrecht, The Netherlands: Vlambeer

White, M. (2009). The senescence of creativity: How market forces are killing digital games. *Loading . . .*, *3*(4). Retrieved from http://journals.sfu.ca/loading/index.php/loading/article/viewArticle/54

Zynga. (2012). Dream Heights [Video game, Facebook]. San Francisco, CA: Zynga.