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January 2012

## Minecraft as Web 2.0: Amateur Creativity in Digital Games

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## ***Minecraft* as Web 2.0: amateur creativity and digital games**

*Greg Lastowka\**

This chapter considers how the digital game *Minecraft* has both enabled and benefited from various Web 2.0 practices. I begin with an explanation of the concept of Web 2.0 and then consider how that concept applies to the space of digital games. I then look at *Minecraft* specifically. As I explain, *Minecraft*'s surprise success as an 'indie' game is largely attributable to the ways in which it tapped into the dynamics of amateur creativity. I conclude by suggesting that more games like *Minecraft* may be socially desirable, but noting how current laws discourage the creation of these sorts of games.

### **Web 2.0**

The media landscape of the twentieth century featured a range of media formats: television shows, movies, books, newspapers, periodicals, music, and digital games. The media trajectory during that time was largely dominated by the growth of past industries and the new creation of others. Specialised firms introduced a variety of new technologies (for example, radios, televisions, cassette tapes) to consumers that provided new capabilities for one-to-many media. Both old and new forms of media showcased, primarily, the works of professional writers, actors, artists, and musicians who were employed by the media production industries.

'Professional' creators played a central role in this media environment in part because the various technologies of media creation (for example, movie cameras, sound mixers, and lithographic presses) were expensive and therefore purchased primarily by commercially motivated firms. The technologies of media distribution (for example, broadcast stations, printing presses, delivery trucks) were also expensive. Firms who created media recouped their expenses by licensing their content to distribution companies, who recouped their expenses by either selling content directly (the model for books), supporting distribution with advertising (the model for radio), or pursuing a combination of these strategies (the model for newspapers). Notably, many forms of new media were dependent on the profusion of receptive consumer technologies (for example, televisions, radios, and turntables). These

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technologies were one-way receivers of media — they built audiences.<sup>1</sup> Technology thus drew a stark line between artist and audience, creator and consumer, author and reader.

In this world, few ‘amateurs’ were significant. Amateurs are creators who produce primarily (or exclusively) because they enjoy the act of production.<sup>2</sup> Professionals may enjoy their work, but they labor in expectation of a significant financial return. Amateurs do not. The professional/amateur distinction, like the work/play distinction, has a blurry boundary, but the ability of a professional to produce a work of commercial value seems to be the key delineating factor.

The labour of a creative ‘professional’ is commercially valuable within a market. Professional works are packaged and sold within the media industry. Those who are not successful at gaining entry into the commercial marketplace (the gallery, the book store, the television network) must be described as amateurs. Amateurs have traditionally had more limited means for making their creativity available to the public.

‘Web 2.0’ is the term used to describe the recent shift in this landscape. Internet technology, and the World Wide Web in particular, have supplemented the one-to-many media model with a many-to-many model. Web 2.0 describes online forms of ‘participatory media’ in which former audiences assume significant agency in content creation and distribution.<sup>3</sup>

Web 2.0 is commonly associated with specific technologies and platforms that enable amateur content creation and distribution. They include blogs, wikis (Wikipedia especially), photo-sharing forums, video-sharing forums, and other sites where individuals upload media in ways that permit mass distribution. A term often associated with Web 2.0 is ‘user-generated content’ or ‘user created content’, which highlights the value of ‘user’ (audience) contributions to Web 2.0 platforms.<sup>4</sup>

The terms ‘Web 2.0’ and ‘user-generated content’ are hardly the only neologisms used to describe this shift. Every commentator seems to have a different way to describe some aspect of Web 2.0. For instance, even before the term Web 2.0 was coined, law professor James Boyle was describing the ‘commons’ of culture and creativity.<sup>5</sup> Lawrence Lessig, in many popular books, described concepts like ‘remix culture’, where cultural products are (digitally) adapted and transformed by the public.<sup>6</sup> Clay Shirky has celebrated ‘crowdsourcing’, where

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<sup>1</sup> Henry Jenkins, *Convergence Culture: Where Old and New Media Collide*, New York: New York University Press, 2006, p. 13 (discussing ‘delivery technologies’).

<sup>2</sup> The word ‘amateur’ originates from the Latin *amator*, or ‘lover’.

<sup>3</sup> See, e.g., Sal Humphreys, ‘The Concepts and Conditions of Governance in Massively Multiplayer Online Games’ in Christoph Beat Graber and Mira Burri-Nenova (eds), *Governance of Digital Game Environments and Cultural Diversity: Transdisciplinary Perspectives* (Cheltenham, UK: Edward Elgar, 2010, p. 113; Clay Shirky, *Cognitive Surplus: How Technology Makes consumers Into Collaborators*, New York: Penguin Press, 2010, p. 19.

<sup>4</sup> Mira Burri-Nenova, ‘User Created Content in Virtual Worlds and Cultural Diversity’ in Graber and Burri-Nenova (eds) *Governance of Digital Game Environments and Cultural Diversity*, p. 74.

<sup>5</sup> James Boyle, ‘A Politics of Intellectual Property: Environmentalism for the Net’ (1997) 47 *Duke Law Journal* 87.

<sup>6</sup> Lawrence Lessig, *Remix: Making Art and Commerce Thrive in the Hybrid Economy*, New York: Penguin Press, 2008.

communities use their 'cognitive surplus' to create new content and share it with each other.<sup>7</sup> Henry Jenkins heralds the dawn of a 'convergence culture' where 'fans, bloggers, gamers', help to shape the media.<sup>8</sup> Jonathan Zittrain praises the 'generativity' of the Internet.<sup>9</sup> Eric von Hippel celebrates the role of user communities in 'democratizing innovation' by adding new ideas and value to many products.<sup>10</sup> Don Tapscott and Anthony Williams have promoted the term 'prosumer' as a way of describing productive consumers who add value to commercial platforms.<sup>11</sup> Yochai Benkler argues that prosumers are participants in a new economy of 'peer production' that draws on the 'wealth of networks'.<sup>12</sup> This is hardly a complete catalog of the Web 2.0 terminological buffet,<sup>13</sup> but it certainly suggests that many commentators believe that something new is afoot in online media.

Of course, the new is usually an evolution of the old, and veteran digerati might view Web 2.0's emphasis on user agency, innovation, community and creativity as embodying the 'hacker ethic' and the 'open source' philosophy that has been part of computing culture since the 1960's.<sup>14</sup> And, as some commentators have noted, the contemporary movement toward participatory media might be seen as a revival of the folk culture displaced by the mass media. Web 2.0 is certainly modeled, in many ways, on pre-digital amateur practices (for example, letters to the editor, art enthusiast clubs, and garage bands).<sup>15</sup>

Like the earlier shift to a mass media model, the shift to Web 2.0 has technological underpinnings. Cheap digital machines combined with the Internet's decentralised architecture have led past motivations and practices to take on a new power.<sup>16</sup> As Ithiel de Sola Pool observed over 25 years ago, certain technologies, once in place, exert a sort of 'soft technological determinism' on the shape of the culture that uses those tools.<sup>17</sup>

As the next section explains, the emergence of Web 2.0 amateur creativity has gone hand in hand with the emergence of the most popular forum of participatory media, the digital game.

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<sup>7</sup> Shirky, *Cognitive Surplus*.

<sup>8</sup> Jenkins, *Convergence Culture*.

<sup>9</sup> Jonathan Zittrain, *The Future of the Internet and How to Stop It*, New Haven and London: Yale University Press, 2008.

<sup>10</sup> Eric von Hippel, *Democratizing Innovation*, Cambridge, Massachusetts: MIT Press, 2006.

<sup>11</sup> Don Tapscott and Anthony D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, New York: Penguin Group, 2010 expanded edition.

<sup>12</sup> Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, New Haven and London: Yale University Press, 2007.

<sup>13</sup> See, e.g., Dan Hunter and Greg Lastowka, *Amateur-to-Amateur* (2004) 46 *William and Mary Law Review* 951.

<sup>14</sup> Steven Levy, *Hackers: Heroes of the Computer Revolution*, Garden City, New York: Anchor Press/Doubleday, 1994.

<sup>15</sup> Ramon Lobato, Julian Thomas and Dan Hunter, 'Histories of User-Generated Content: Between Formal and Informal Media Economies', SSRN eLibrary, 28 JANUARY 2011 <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1749803](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1749803)>.

<sup>16</sup> See Shirky, *Cognitive Surplus*, 19.

<sup>17</sup> Ithiel de Sola Pool, *Technologies of Freedom*, Cambridge, Massachusetts: Harvard University Press, 1983, p. 5.

## Digital games as Web 2.0

Oddly, digital games are often excluded from discussions of Web 2.0. To some extent, this may be attributable to the lower cultural status of digital games. Despite broad consumption demographics, there is still a cultural bias against digital games. Erroneously, digital games are often seen as the exclusive domain of young boys.<sup>18</sup> The academic treatment of digital games sometimes reflects this stereotype or does nothing to challenge it. Digital games are rarely studied today in most humanities programs and are often excluded from the universe of legitimate art forms by critics. Ironically, the prejudice against digital games may be attributable to their amateur roots.

Video games as a form of media were birthed with the technology of Web 2.0, the computer. In the 1960s and early 1970s, due to the high cost of computing equipment, there was little chance of marketing digital games to consumers, so most game creators had no prospect of securing a financial return for their creative labor.<sup>19</sup> *Space War*, for instance, was one of the first multi-player shooter games and is a lineal ancestor of contemporary shooting games, such as *Starcraft II*. *Space War* was written collaboratively by graduate students at MIT.<sup>20</sup> Its creators saw very little in the way of an economic return for their efforts — but they did enjoy making and playing their game. One of the most popular early text-based computer games, *Adventure*, was also not written for sale, but for the author's children. *MUD*, one of the first multi-player online games, was written as a graduate student project at the University of Essex.

The first computer games were not only written by 'amateurs', they also incorporated amateurism into their structure. Digital games depend on constant interactions between the game player and the program that produce the game's 'text'.<sup>21</sup> A film is a crafted work to be enjoyed and deciphered, with every detail attributed to the genius of the author or the production crew. A game, by comparison, turns the 'reader' into a 'player' and offers her a chance to influence the direction of the text.<sup>22</sup> Digital game designers must build in room to accommodate diverging paths of play. This may explain, in part, why the digital game genre is not a favorite of traditional critics — the text of a game varies based on the capabilities of the player. This makes criticism a much more difficult (and time-consuming) task.<sup>23</sup>

Despite the amateur roots of digital games and the amateur agency they entail, digital game production today is certainly a professional activity. As the computer and digital game industry matured and consumer technology costs were reduced, amateur inventions were made

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<sup>18</sup> Aphra Kerr, '(Girls) Women Just Want to Have Fun: A Study of Adult Female Players of Digital Games (Paper presented at Level Up: Digital Games Research Conference, Utrecht University, 4–6 November 2003).

<sup>19</sup> Steven L. Kent, *The Ultimate History of Video Games*, New York: Three Rivers Press, 2001; Aphra Kerr, *The Business and Culture of Digital Games: Gamework and Gameplay*, Sage, 2006, pp. 13–15.

<sup>20</sup> Stewart Brand, 'SPACEWAR: Fanatic Life and Symbolic Death among the Computer Bums', *Rolling Stone*, 7 December 1972, p. 50.

<sup>21</sup> David Myers, *The Nature of Computer Games: Play as Semiosis*, New York: P. Lang, 2003; Kerr, *The Business and Culture of Digital Games*, pp. 21–41.

<sup>22</sup> Espen Aarseth, *Cybertext: Perspectives on Ergodic Literature*, Baltimore: Johns Hopkins University Press, 1997.

<sup>23</sup> Espen Aarseth, 'Playing Research: Methodological Approaches to Game Analysis' (2003) 17 *Fine Art Forum* (available at <<http://hypertext.rmit.edu.au/dac/papers/Aarseth.pdf>>).

profitable by professional firms. *Space War*, *Adventure*, and *MUD* all gave birth to commercialised versions of these same games with these same names.<sup>24</sup> Companies like Atari and Infocom effectively profited from making cheaper versions of amateur games and introducing them to consumers.<sup>25</sup> Today, sizeable corporations like Sony, Nintendo, Microsoft, and Electronic Arts dominate the landscape of digital gaming and the cost of producing digital games has expanded tremendously.<sup>26</sup> Many companies spend millions or even tens of millions of dollars to develop new titles.

Game design is clearly 'professional' today, which may be why we think of game players not as amateurs, but as consumers. We have learned that forms of professional media entail the existence of an audience, so players fill that role for games. Additionally, our failure to recognise the creative nature of gameplay may be the converse of the suspicion of the aesthetic merit of the digital game genre. If digital games are less culturally worthy due to their inclusion of amateur participation, then it follows that game players, to the extent they are creative, are less authorial due to their engagement with the work of the game's creator. We may also assume that playing a digital game produces no commercially valuable content and therefore is not a form of amateur creativity.

To the extent that game play is not recorded, this may be true. However, digital games have often been associated with substantial amateur creativity in fixed forms. Since their earliest origins, users of digital games have found ways to creatively 'remix' the games they enjoy by rewriting portions of their code. In some cases, tools for this sort of user creativity have been built into the games. Since the 1980's many computer games have allowed players the ability to design customised 'levels' or 'maps' and share these with other players. Many of the earliest digital games were fully 'remixed' by later creators, starting from the very early programs of the 1960's and 1970's. For instance, Don Woods essentially revised and edited the amateur game of *Adventure* as it was developed by Will Crowther, making the game's canonical version an early act of amateur remixing.<sup>27</sup> An early Atari 2600 version of the same game was another 'remix' of that title. Starting in the 1980's, many computer-based games gave rise to communities of 'modders' who augmented and developed the software to introduce new content and functions.<sup>28</sup> In some cases, these later modifications became as popular as the original games.

Given the interactive nature of gaming, it is natural that many producers of digital games have also experimented with ways of facilitating amateur creativity by building design tools into their

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<sup>24</sup> Greg Lastowka, *Virtual Justice: The New Laws of Online Worlds*, New Haven and London: Yale University Press, 2010, pp. 37–43.

<sup>25</sup> Nick Montfort and Ian Bogost, *Racing the Beam: The Atari Video Computer System*, Cambridge, Massachusetts: MIT Press, 2009, pp. 8–12.

<sup>26</sup> Christian Reimsbach-Kounatze and Sacha Wunsch-Vincent, 'Online Games and Virtual Worlds: Business and Policy Developments' in Beat and Burri-Nenova (eds), *Governance of Digital Game Environments and Cultural Diversity*, p.3.

<sup>27</sup> Nick Montfort, *Twisty Little Passages: An Approach to Interactive Fiction*, Cambridge, Massachusetts: MIT Press, 2003.

<sup>28</sup> Hector Postigo, 'Video Game Appropriation Through Modifications' (2008) 14 *Convergence: The International Journal of Research Into New Media Technologies* 59.

software. As Aphra Kerr has noted, '[d]igital games also encourage their users to become "authors" and to produce game content which can be circulated and played by other users'.<sup>29</sup> In the 'sandbox' genre of games, for instance, the game is often primarily about the pleasure of exercising creative power over a complex simulation. *SimCity*, for instance, is a game about building and maintaining a simulated city. The developer of *SimCity*, Will Wright, is perhaps the most well known creator of sandbox games. His most recent game is *Spore* (distributed by Electronic Arts).

In standard *Spore* gameplay, players must customise the appearance of their creatures and environments. This creativity is shared with other players, who can encounter copies of user-generated content in their own games. If players wish to search for new objects and creatures, *Spore* provides a built-in platform for doing so. In one *Spore* expansion pack (*Galactic Adventures*), users can design adventure challenges for other users. Players can then rate those challenges and leave notes for the amateur authors who created them.

In addition to sandbox games, massively-multiplayer online role-playing games (MMORPGs) are another genre of games often associated with a high level of user-generated content and amateur creativity.<sup>30</sup> As Sal Humphreys, T.L. Taylor,<sup>31</sup> Thomas Malaby,<sup>32</sup> Mira Burri-Nenova and others have noted, this is often true, although the exact sort of user-generated content created varies considerably between gaming platforms. In the game *City of Heroes*, for instance, players are given extensive tools to develop the appearances of their avatars, which can lead to considerable creativity.<sup>33</sup> In *The Lord of the Rings Online*, players can write their own musical notation to be played on virtual instruments. And even in an MMORPG like *World of Warcraft*, which offers very few in-game creative tools to the player, 'user generated content' of a certain stripe plays a role. In *World of Warcraft*, players often enjoy playing in groups or in social proximity and use the game's platform as a tool for conversation and community.

The game of *Second Life* (which is arguably not a game at all) is often described as a leading example of a platform for user creativity. *Second Life*'s marketing materials often describe it as a virtual world built by its users and this is largely a true statement.<sup>34</sup> *Second Life* combines the features of a sandbox game with the social nature of an MMORPG. It has also thrown in the additional element of an authorised virtual economy, which has allowed many of the 'amateur' authors in *Second Life* to obtain 'professional' status by selling their content to other *Second Life* users. In a few cases, this marriage of creativity and a virtual economy has led to user-

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<sup>29</sup> Kerr, *The Business and Culture of Digital Games*, p. 2.

<sup>30</sup> T. L. Taylor, 'Whose Game Is This Anyway? Negotiating Corporate Ownership in a Virtual World' (Paper presented at Computer Games and Digital Cultures, Tampere, Finland, 6–8 June 2002) 227; Sal Humphreys, 'Productive Players: Online Computer Games' Challenge to Conventional Media Forms (2005) 2 *Communication and Critical/Cultural Studies* 1; Erez Reuveni, 'Authorship in the Age of the Conducer' (2007) 54 *Journal of the Copyright Society of the U.S.A.* 285.

<sup>31</sup> T.L. Taylor, *Play Between Worlds: Exploring Online Game Culture*, Cambridge, Massachusetts: MIT Press, 2006.

<sup>32</sup> Thomas M. Malaby, *Making Virtual Worlds: Linden Lab and Second Life*, Ithica: Cornell University Press, 2009.

<sup>33</sup> Lastowka, *Virtual Justice*.

<sup>34</sup> Ibid. As Malaby's book *Making Virtual Worlds* explains, however, certain *Second Life* users are more creative than others.

initiated lawsuits complaining of the infringement of intellectual property rights within *Second Life*.<sup>35</sup>

Of course, not every game is like *Second Life*. Many popular digital games today, such as *Angry Birds* or *Portal II*, offer few built-in tools for user creativity.<sup>36</sup> However, even in the absence of creative tools, digital games often spur user creativity outside the game. Since the 1980s (at least), players of all manner of digital games have shared information and commentary about their favorite games. In the 1980s game discussion was often found on electronic bulletin boards, which exemplified Web 2.0 practices well before the creation of Web 1.0.<sup>37</sup> Today, a simple online search for any game title reveals a wealth of content, much created by amateurs, relevant to almost every digital game on the market. These sorts of works include game play videos, tutorials and wikis, artwork, forums — there is even a YouTube video that captures a playable *Angry Birds* birthday cake.<sup>38</sup>

While not all digital games prioritise amateur creativity in their design, many do, and even those that don't are often swept up into the emerging culture of Web 2.0. Arguably, the most popular and vibrant marriage of amateur creativity and the digital gaming genre has been achieved by a recent 'indie' game: *Minecraft*.

### ***Minecraft***

*Minecraft* is a computer-based game written in the Java programming language.<sup>39</sup> The first ('Alpha') version of *Minecraft* was created in Sweden in 2009 by Markus 'Notch' Persson. Since that first release, Persson has regularly updated the software (often several times per month) and expanded it to include new features. *Minecraft* can currently be played for free, although the 'Beta' version costs €14.95. *Minecraft* was only 'officially' released in November 2011.

*Minecraft's* level of sophistication reflects its inexpensive development. The graphics are emphatically retro. Avatars have very crude block-shaped heads and rigid bodies. The world they explore is made up of huge cubic blocks of various materials: for example, trees, grass, stones, and water. The website of the game features rather clunky text and graphics and looks like a throwback to the Web of the 1990s. Its most prominent feature is an embedded YouTube video clip entitled 'This Is *Minecraft*'.

Though Persson created the game alone, he was soon able to form a small company, 'Mojang', based on the proceeds of *Minecraft's* early sales. With no advertising, by the summer of 2011, Mojang had sold over 3 million copies of *Minecraft* and registered over 10 million player

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<sup>35</sup> See Lastowka, *Virtual Justice*, pp. 192–3.

<sup>36</sup> *Portal II* actually does offer users tools for creating new levels, but these tool must be downloaded separately.

<sup>37</sup> Mia Consalvo, *Cheating: Gaining Advantage in Videogames*, Cambridge, Massachusetts: MIT Press, 2007.

<sup>38</sup> Ellectricpigtv, *Playable Angry Birds birthday cake* (20 February 2011) YouTube, <<http://www.youtube.com/watch?v=-hwVRzaQNkA>>.

<sup>39</sup> See <<http://www.minecraft.net/>>.



accounts, translating into well over 60 million dollars in revenue.<sup>40</sup> This level of success is rare in the professional games industry and almost unprecedented in the ‘indie’ game sector, the umbrella term used to describe games made by solo creators or small studios.

*Minecraft*’s indie roots lend the game a Web 2.0 flavor. Indie games often tend to be more aligned with amateur sensibilities. Since they are created by solo authors or small teams, they are often more authentic expressions of the ideas of their creators. Persson is certainly more intimate with *Minecraft* players than most game developers are with their audiences. Like all indie developers, his public statements are not mediated by corporate marketers or supervising producers. Yet Persson is not a Web 2.0 amateur, by any means. He is certainly profiting from *Minecraft*. The amateurs of *Minecraft* are its players.

To play *Minecraft* is to use the game as a creative tool. One can’t really ‘win’ at *Minecraft*, since there are no required goals and no dramatic plot that must be followed. Players spend most of their time simply ‘mining’ and ‘crafting’ blocks of virtual materials, hence the game’s name. Once players have gathered and crafted a sufficient inventory of resources, they use these virtual acquisitions to design customised homes and landscapes, often building all manner of blockish structures. *Minecraft* has been called a ‘building block game’. It is analogous to a digital box of Legos — one with a healthy dash of *The Lord of the Rings* thrown in.

*Minecraft* requires players to be creative, even if that creativity is limited to designing a crude shelter or tunneling the layout of a mine. But most players don’t stop there. Digging a mineshaft leads almost inevitably to the creation of large underground caverns and mountainside fortresses. Building a simple house leads to the construction of another story for that house, and then a tower, then villages, then monumental sculptures, and finally feats of complex engineering, such as dams, bridges, and roller coasters.

Many *Minecraft* players want to share their creativity, but unlike players of *Spore*, they have no built-in content-sharing technologies to rely upon. To remedy this, they have turned to video capture software and YouTube. A search for ‘*Minecraft*’ on YouTube in the summer of 2011 returned almost 2 million responses. The most popular of those videos were viewed over a million times. Many of the *Minecraft* offerings on YouTube are tours of user-built structures. These range from a full-scale model of the Starship Enterprise to a functioning giant-sized whack-a-mole arcade game built out of *Minecraft* blocks and circuitry. Certain video commentators, such as ‘Yogcast’ and ‘Captain Sparklez’, are well-known for their mastery of *Minecraft* ‘machinima’: that is, using *Minecraft* as an animation platform to create audiovisual stories.<sup>41</sup>

In addition to YouTube videos, *Minecraft* players have filled the Web with a wealth of wikis, forum posts, and other sites that offer specialist advice and commentary about *Minecraft*. Some sites offer tutorials for *Minecraft* building or mining while others explain how to rig basic

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<sup>40</sup> See Tim Edwards, ‘The Game’s Industry’s Massive Fail: Where Are All the Minecraft Clones?’, *pcgamer.com* (online) 20 September 2011 <<http://www.pcgamer.com/2011/09/20/the-game-s-industry-s-massive-fail-where-are-all-the-minecraft-clones/>>.

<sup>41</sup> See *BlueXephos’s Channel*, YouTube <<http://www.youtube.com/user/BlueXephos>>; *Captain Sparklez’s Channel*, YouTube <<http://www.youtube.com/user/CaptainSparklez>>.

electrical circuits in the game. There are also a variety of third-party software modifications. These include multi-player servers, 'skins' for adding custom textures to the game, and mod packages that add additional features (for example, animals, guns, planes) to the game. There are sites that feature pictures, comic strips, and costumes based on *Minecraft*. There is even one website that serves as a forum for elementary school instructors who are seeking ways to use *Minecraft* as a teaching tool.<sup>42</sup> One can also find college course weblogs about game aesthetics that offer student reflections on the experience of playing *Minecraft*.<sup>43</sup>

Players use *Minecraft*'s software as a locus for generating their own creative content both in the game and outside of it. They use cheap digital content creation tools (digital video, wikis, blogs) for the sharing and promotion of their creations. They host their creative content on webpages and cloud-based content-sharing sites (for example, YouTube, Facebook, Twitter). Their creations work in lieu of traditional advertising by popularising the game with new users and adding to the game's value. This viral dynamic makes *Minecraft* a subject of fascination in the more traditional gaming industry, which leads to stories about the game in mass media, further contributing to the growth of *Minecraft*'s user base.

This sort of creativity can certainly be folded into the standard story of Web 2.0. The millions of *Minecraft* YouTube videos, for instance, are one small piece of the (presumably) billions of amateur videos hosted by YouTube. The written text of a *Minecraft* tutorial or wiki might be seen as analogous to the many online amateur 'fan fiction' works inspired by Star Wars, Harry Potter, Twilight, and countless other films and books. Reading a blog posting about *Minecraft* may certainly substitute for reading a 'professional' paperback or magazine. Yet to conflate *Minecraft* creativity with other forms of amateur content is to lose sight of how the game itself draws the player in and initiates the creative process. The way that a game like *Minecraft* generates amateur creativity is unique.

*Minecraft* is not just media content that became the focus of fan attention. The game is a creative tool. But it is not the same sort of tool as a word processing program or a digital painting program. *Minecraft* does not present new users with a blank page or space. Instead, it presents a simulated landscape and a set of tools to manipulate a fictional space. All creativity in *Minecraft* derives from and furthers the fiction presented by the game. To build something from wood blocks, one must first cut down trees. To build from stone, one must mine the blocks from the ground. *Minecraft*'s creative tools are enmeshed with its simulated world.<sup>44</sup>

*Minecraft* additionally demands creativity outside the game. In its first two years of development, *Minecraft* offered barely any instructions to the novice player. As a game design decision, this was arguably an unforgivable error — standard game design doctrine is that the player should be taught, by the game, how to play and be successful. However, even the most rudimentary game play in *Minecraft* (for example, chopping down a tree, making a mining pick)

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<sup>42</sup> See *Massively Minecraft: A Community for Educators* <<http://socialmediaclassroom.com/host/MassivelyMinecraft/>>.

<sup>43</sup> See Sidsel, *I Feel Free* (02 March 2011) Digital Game Theory <<http://digitalgametheory2011.tumblr.com/post/3617136120/i-feel-free>>.

<sup>44</sup> The current game does feature a 'creative mode' where players can build freely without gathering resources, but the original 'canvas' for this mode is still a simulated natural landscape.

is a nearly impossible task if one simply plays the game as written. The new player must look outside *Minecraft* for answers.

Initially, *Minecraft*'s lack of an instruction manual may have been a consequence of Persson's lack of interest in writing one. However, in retrospect, this 'mistake' was an ingenious design decision. When *Minecraft* players look for help online, this introduces them to the wikis, videos, blogs, and other forums that are devoted to the game. This introduces players, at the outset, to the importance of the independent online community.

By turning to the Web, new players find (perhaps inadvertently) examples of what *Minecraft* is about. A Web page featuring basic instructions for crafting a *Minecraft* bed, for instance, might also feature a link to a formula for crafting a diamond breastplate, which may send the novice in search of information about where diamonds are hidden in the virtual landscape. A search on Google for that answer may include, in its results, a video showing a player-built roller coaster, inspiring the novice to learn how to build a basic roller coaster. YouTube, web forums, and other sites thus emulate an artist's colony — new players can appreciate what has been done in *Minecraft*, comment on what others have done, imitate the techniques of others, and ultimately share their own work with *Minecraft* players.

*Minecraft* does very little to aid or direct players in this process. Often, new players see things in the community that appeal to them, yet seem outside of their capabilities. In some cases, this is because they have not modified the game's software. Adding customised content is not easy and requires additional forays into Web-based instruction and downloading files and programs from third-party websites.

*Minecraft*'s mode of amateur content sharing is much less packaged than what can be found in *Spore* and much further from the control of Mojang. *Minecraft* is therefore much more open to user-created innovations. The lack of sophistication and slickness in the tools used for content sharing signals the greater authenticity of the user community, which also leads users to feel empowered to seek and create new ways to share content. The community's existence and enthusiasm are viewed as independent of Mojang's corporate efforts to promote the game.

By making *Minecraft* players rely on each other, Mojang effectively introduces new players to other amateur creators and enthusiasts. By regularly updating and revising *Minecraft* — and giving fairly laconic details about the content of these updates — Mojang ensures that players return to their online communities to share information. By making community participation intrinsic to the game, Mojang builds social networks around the game. All this, plus its indie origins and its nature as a 'sandbox' game, would seem to make *Minecraft* a paradigm for the marriage of amateur creativity and digital games.

*Minecraft* clearly exemplifies Web 2.0. The question we might ask is the same one that has been asked about Web 2.0: is this a good thing? And, if so, what is the future of *Minecraft* and games like it?

### **Valuing amateur creativity**

Not everyone thinks that Web 2.0 and the amateur creativity it entails is a good thing. Some popular critics have assailed Web 2.0 as detrimental to the profits and viability of 'professional' content creation. In his book, *The Cult of the Amateur*,<sup>45</sup> former Silicon Valley entrepreneur Andrew Keen argues that an amateur-centric culture threatens both the important role of expert gatekeepers and the quality of information produced. Like many critics of amateur creativity, Keen also accuses amateur creators of groupthink and egoism, states that amateur creativity is derivative (if not piratical) of professional content, and laments the coarseness and vulgarity of amateur tastes. Keen is probably the most well known detractor of Web 2.0, but many other critics (for example, Nicholas Carr,<sup>46</sup> Jason Lanier,<sup>47</sup> Mark Helprin<sup>48</sup>) share some of his views and have published book-length attacks on Web 2.0 enthusiasm along similar lines.

Much more ubiquitous, however, are the popular commentators mentioned earlier who celebrate the various upsides of mass amateurisation of the media. The list of benefits depends on the observer, but they seem to break down into roughly three categories: promoting democracy, promoting diversity, and promoting autonomy.<sup>49</sup>

Web 2.0's promotion of democracy is certainly seen as a key value by many commentators. As Ithiel de Sola Pool noted years ago, the profusion of technologies enabling popular communication allows the public to 'speak back' to mass media.<sup>50</sup> From the standpoint of engaged democracy, a public sphere injected with a healthy dose of popular expression should be superior to a public sphere dominated exclusively by the passive receipt of 'elite' and 'professional' content. Indeed, as Aphra Kerr has noted, digital games should be particularly appealing to us, politically, because '[a]s a cultural practice they embody the liberal ideals of individual choice and agency'.<sup>51</sup>

Cultural diversity is also claimed to result from Web 2.0 practices. A broad set of amateur creators, by the sheer magic of numbers, is more likely to offer the public forms of media content that speak to unique perspectives, both in terms of locality and in terms of cultural diversity.<sup>52</sup> Web 2.0 is seen as a remedy to the homogenisation and exclusion of culture which is found in globalised professional media.

Even putting aside these two civic values associated with amateur creativity, many commentators argue that there is an intrinsic and non-instrumental value to amateur creativity. Amateur creators are not passive audiences, but active participants in their own micro-groups.

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<sup>45</sup> Andrew Keen, *The Cult of the Amateur: How the Internet is Killing Our Culture*, New York: Doubleday, 2007.

<sup>46</sup> Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains*, New York: W.W. Norton & Company, 2010.

<sup>47</sup> Jaron Lanier, *You Are Not a Gadget: A Manifesto*, New York: Alfred A. Knopf, 2010.

<sup>48</sup> Mark Helprin, *Digital Barbarism: A Writer's Manifesto*, New York: HarperCollins, 2009.

<sup>49</sup> Cf. Burri-Nenova, 'User Created Content', p. 98 (pointing to the value of 'increased user autonomy, increased participation, and increased diversity').

<sup>50</sup> de Sola Pool, *Technologies of Freedom*, 5.

<sup>51</sup> Kerr, *The Business and Culture of Digital Games*, p. 1.

<sup>52</sup> Aphra Kerr, 'Beyond Billiard Balls: Transnational Flows, Cultural Diversity, and Digital Games' in Graber and Burri-Nenova (eds) *Governance of Digital Game Environments and Cultural Diversity*, p. 47.

The experience of crafting and delivering public expression through online media builds communication skills, allows creators to experience freedom and autonomy, and lends creators a new perspective on the nature of professionally produced content.

Finally, it is worth noting that amateur culture, due to its lack of profitability, has greater authenticity — it is more expressive of the creator's ideas. Whereas professional content is often allied with the goals of advertising and persuasion, amateur content is more likely to be non-manipulative in its objectives. This actually goes hand-in-hand with popular criticisms of amateur expression as unmarketable and unappealing. This is true: many amateur works may not be of interest to any particular audience, given that amateur producers are not restricted to creating commercially viable commodities. And arguably, this is a good thing. Amateur projects can be experimental, personally expressive, and politically controversial.

Although there are certainly critics of Web 2.0, the consensus of commentary seems to be that the inclusion of amateur creativity in popular media is a beneficial development. Ideally, therefore, those who promote the public interest through policy and law would work to craft laws that value amateur creativity. At the very least, they would do nothing to hinder the current flourishing of amateur media.

Many of today's laws, however, are firmly rooted in a pre-Web 2.0 world. Despite several years of academic and popular enthusiasm over Web 2.0, amateurs have little political traction in the world's legislatures. 'Professional' media is still the media that makes money and therefore the media that counts. Companies that create and distribute books, music, software, and movies have grabbed the attention of lawmakers and law enforcement agencies. The reaction of executives in the entertainment industry to amateur media is, at best, indifference.

Although the United States is arguably the birthplace of Web 2.0, it is also the birthplace of Hollywood. Legislators have focused largely on the latter fact and devoted themselves to protecting the profits of the entertainment industries against commercial piracy. In the international arena, the same trade-based concerns seem to dominate. The revenues derived from entertainment media play an important part in trade negotiations and treaties, probably because U.S. films and music are a key American export.

The legislative take on Web 2.0 in the United States is not too surprising: few elected representatives are early adopters of new technologies, many are dependent on the contributions of private firms to run their campaigns, and many are keen (especially in the current economic climate) to prioritise job creation. It follows that lawmakers would be more inclined to favor the stability of traditional content 'industries' rather than embrace this shift toward Web 2.0 amateurs who threaten to destabilise the commercial landscape. While Web 2.0 companies, such as Google and Facebook, might be seen as worthy civic actors (creating potential tax revenues and jobs), the creative fuel that feeds the balance sheets of both companies — amateur creativity — is generally ignored.

Yet it might be noted that Web 2.0 did not rely on the market or the government for its birth. Web 2.0 itself was an accident just as *Minecraft*'s success was an accident. The infrastructure of the Internet may have been built through state and private investments, but very few of those who built that infrastructure understood that they were laying the groundwork for Web

2.0. If that were the case, the business models of Web 2.0 would have been quickly adopted by the publishing, recording, and motion picture industries. Instead, Web 2.0 was not even anticipated by the first wave of dot-com titans; America Online and Yahoo! were both taken by surprise. Even the most recently minted technology companies have often had a blind spot with respect to amateur creativity. Much like *Minecraft*, each new business built on the energy of amateurs seems to come as a surprise.

There are good reasons for this blind spot. Traditional media companies view media as a commodity they offer to consumers, not something consumers produce for themselves. And when amateur creators produce, they rarely produce work that is entirely original (who does?). As a result, when companies give substantial creative leeway and creative tools to fans, it is inevitable that fans will use those tools to create derivative forms of content. This can create legal problems for those who provide the tools, since the laws of copyright and trademark treat the work of online amateurs in the same way that they treat the work of professionals.

Copyright law deems new works that are substantially similar to protected works as infringing unless authorised by the owner of the copyright. J.K. Rowling, for instance, owns a copyright in her books and therefore has the exclusive right to make stories and films set in the *Harry Potter* universe.<sup>53</sup> Copyright law gives Rowling the right to sue and recover damages from authors who make and sell new works of fiction set in her world. A cursory search of Web 2.0 sites, however, reveals a surfeit of amateur stories, artworks, and videos that are all based on Rowling's books. Many of these would appear to infringe her copyrights.

As a matter of public relations, it would be unwise for Rowling to sue everyone who dresses up like Harry Potter in a YouTube video or posts a short story about Harry on the Internet. As a practical matter, Rowling (and the owner of any popular fiction) would find it incredibly time-consuming and all but impossible to entirely prevent the circulation of amateur works based upon her creativity. However, existing law also makes it problematic for her to permit amateur creativity based on her stories.

The chief problem is that fans that create authorised new works should, by default, own exclusive rights to whatever creative labor they have added. Fan rights in new works based on *Harry Potter* may ultimately work against the financial and creative interests of Rowling. For instance, some fans of *Harry Potter* have written unauthorised stories where characters from Rowling's books travel to New York City. If Rowling were, at this point, to give a blanket license to all derivative works by her fans, she might ultimately find herself subject to a fan's copyright claim if she were to write or authorise a new *Harry Potter* work set in New York. Copyright law therefore operates in a way that makes it problematic for the content industries to work with amateur creators without some sort of clear guidelines about the ultimate ownership of intellectual property rights.

The space of video games has encountered these same problems. Fans of *World of Warcraft*, for instance, are currently permitted to submit fan art and machinima to the company's web site pursuant to written policies that specify the terms and conditions of the license and

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<sup>53</sup> With some exceptions — parodies, for instance, might be allowed in the United States if they fall within the scope of 'fair use' doctrine.

generally provide the game company with the right to commercially exploit user creations. Many Sandbox games, like *Spore*, have similar extensive licensing provision for the use of the tools that they provide. In some cases, like other Web 2.0 companies, game companies have responded to complaints of copyright infringement by users. For instance, certain creatures in *Spore* have been removed by Electronic Arts when they presented concerns about copyright infringement. And the makers of the MMORPG *City of Heroes* complied with demands by Marvel Comics to delete certain avatar costumes created by users that were claimed to infringe Marvel's copyrights.<sup>54</sup>

Navigating the interplay of copyright law and user-generated content in games is therefore a rather messy proposition. The difficulties may explain the reluctance of many established players in the games industry to full embrace tools for amateur creativity.

Once again, though, *Minecraft* provides an interesting case study due to its nature as an independent game. At present, *Minecraft* is eschewing legalese and approaching intellectual property issues in its characteristic (primitive and authentic) manner. On [minecraft.net](http://minecraft.net), there is a page labeled 'terms of use' and signed by 'Markus Persson and friends'. The terms page is no more than 500 words long, incredibly short compared to almost any similar set of terms on a similar game. Under the heading 'The One Major Rule' it states:

Do not distribute anything we've made. This includes, but not limited to, the client or the server software for the game. This also includes modified versions of anything we've made. In order to ensure integrity of the game, we need all game downloads to come from a single central source: us. We hope you understand. It's also important for us that 3rd party tools/services don't seem 'too official' as we can't guarantee their quality. If you wish to make something pertaining to anything we've made we're humbled, but please make sure that it can't be interpreted as being official.<sup>55</sup>

Immediately after that, under the heading 'What You Can Do', Persson goes on to say that

[i]f you've bought the game, you may play around with it and modify it. We'd appreciate it if you didn't use this for griefing, though, and remember not to distribute the changes. Any tools you write for the game from scratch belongs to you. You're free to do whatever you want with screenshots and videos of the game, but don't just rip art resources and pass them around, that's no fun.<sup>56</sup>

Finally, in the third section of the short document, entitled 'Other,' Persson states:

We reserve the right to change this agreement at any time with or without notice, with immediate and/or retroactive effect. Any suggestions made are assumed to be offered for free unless otherwise agreed before the suggestion was made. We're not going to put up a huge EULA. We're trying to be open and honest, and we hope people treat us the same way

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<sup>54</sup> See *Marvel Enterprises v NCSoft*, 74 USPQ 2d 1303 (CD Cal, 2005).

<sup>55</sup> *Terms of Use*, Minecraft <<http://www.minecraft.net/terms>>.

<sup>56</sup> Ibid.

back. If there's anything legal you're wondering about that isn't answered from this page, don't do it and ask us about it. Basically, don't be ridiculous and we won't.<sup>57</sup>

While the first sentence in the above quote reveals that Persson is not completely cavalier about what he is doing with the document, his later refusal to 'put up a huge EULA' is well in keeping with the indie ethos of *Minecraft*. The permissions statement — [y]ou're free to do whatever you want with screenshots and videos' — is decidedly not the language of copyright law, but is incredibly succinct compared to the multi-part agreement that *World of Warcraft* uses to permit its players to submit fan art or post machinima.

On the whole, the 500-word document also seems to reflect Persson's political views about intellectual property: he is a member of the Swedish branch of the 'Pirate Party'. During the closing session of the Indie Games Summit in 2011, he captured some media attention in the game industry by stating 'piracy is not theft' and advising games creators to view those who copy their games without authorisation as potential customers. As one critical reporter/blogger (writing for Forbes.com) explained, this tolerance for unauthorised copying is hardly a common perspective in the games industry.<sup>58</sup> To critics of Web 2.0 who associate the trend with piracy, it may be positive evidence of the connection. But Persson is part of the digital games industry and *Minecraft* is his own creative work. Despite his refusal to condemn piracy, he has been incredibly successful at monetising his game while retaining a rather skeptical view of intellectual property protections.

Persson's minimalist approach to controlling his game may also help him avoid potential run-ins with other intellectual property owners. As stated before, *Minecraft*'s lack of content sharing tools pushes much of the community's creative activity to the open Web. The player-created 'infringing avatars' in *City of Heroes* became a copyright problem for the game's creators because they hosted and claimed intellectual property rights in the amateur content created within the game. However, a *Minecraft* rendition of the Starship Enterprise posted on YouTube would not be a problem for Mojang, since the company claims no rights in user creations and does not host the (potentially infringing) content. By sending players to third-party sites (such as YouTube) to share their creativity, Mojang effectively removes itself from the tricky questions of digital copyright, foisting those concerns off on third parties, such as the Google-owned YouTube.

It is ironic that, if *Minecraft* is an example of the benefits of Web 2.0 for culture and popular media, its success has been accompanied by a rather dismissive and sometimes antagonistic stance toward the intellectual property laws that, in theory, should be Mojang's best friend. From the vantage point of Web 2.0, copyright law seems to be a hurdle laid down in the path of amateur creativity. Governments probably won't remove the hurdle any time soon, but *Minecraft* has shown that, at least in one case, it has been surmountable.

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<sup>57</sup> Ibid.

<sup>58</sup> Paul Tassi, 'Minecraft's Notch: "Piracy is Not Theft"', *Forbes* (online) 4 March 2011 <<http://www.forbes.com/sites/insertcoin/2011/03/04/minecrafts-notch-piracy-is-not-theft/>>.



## Conclusion

Given the contemporary politics of intellectual property, it is highly doubtful that many governments will make much of an effort to support the growth of amateur creativity, much less the niche realm of amateur creativity in games. Although the growth of Web 2.0 seems to be socially desirable, the threat that it poses to the business models of the traditional entertainment industry is significant. The support of amateur practices, when amateurs engage in remixing, reference, parody, and other derivative practices, is also threatening to the coherence and consistent enforcement of intellectual property laws.

While some game companies will make efforts to embrace Web 2.0 in their games and platforms, according users creative leeway may lead to more problems than benefits. A large part of the problem is copyright law, but it is doubtful that companies that depend on intellectual property rights for profits (other than Mojang) will lobby governments or design user tools that operate to weaken the strength of those rights.

*Minecraft* has succeeded by mining the rich gap in our media between games and tools. It offers players not only something considerably more than a conventional 3-D sketching program, but also something considerably more creative than what most games offer. Persson, inadvertently or not, struck gold by calling on *Minecraft*'s players to collaborate, deeply, in the process of creation (including the creation of the game itself). Millions of amateur creators responded eagerly to this challenge by embracing a game that let them be more than an audience and a little more than players too.

Mojang's dependence on an amateur community makes it a highly unusual success. The game industry is surely studying it carefully now. It seems very likely that other companies will offer new games that tap the creative energies of amateur communities. So while *Minecraft* is a breakthrough at the intersection of amateur creativity and digital games, it remains to be seen how this interesting combination of the marketplace, the agora, and the magic circle will evolve.