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## Editors of Play

### The Scripts and Practices of Co-creativity in Minecraft and LittleBigPlanet

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#### ABSTRACT

Computer games can be described as assemblages which, to use a term borrowed from Science and Technology Studies, provide different scripts, setting the scene for user practices. Scripts include the game world's possibilities, restrictions, and the degree of freedom provided to the player. Lately, a new genre of games challenges these specifics. So-called editor games, like *Minecraft* or *LittleBigPlanet*, which entered the market with sweeping success, are not games in the traditional sense (in which players follow certain rules guided by narrative elements framing the gameplay). Instead, these sandbox games – often labeled as 'digital LEGO' or 'co-creative open worlds' – afford constructing a game world rather than playing within one. Following a praxeological approach, this essay will try to make co-creative processes in editor games accessible as a research object, by performing a critical evaluation of established

methods within Game Studies, complemented by an experimental focus group analysis.

## Keywords

modding, co-creativity, participatory culture, affordances

## INTRODUCTION

*Minecraft* (Mojang 2011), *LittleBigPlanet* (Media Molecule 2008), and, most recently, *Disney Infinity* (Avalanche Software 2013) and *Project Spark* (Team Dakota/SkyBox Labs 2014) open up action spaces for participatory practices to a wide circle of users. A process of popularizing co-creative practices is taking place, with the potential to alter and even transcend classical forms of participative media culture (cf. Jenkins 1992/2006a/2006b). These practices are related to, and have emerged from, the “community-based creative design” (Sotamaa 2003, 2) of the larger game modding scene, since the games themselves have their roots in editor software that is used to take part in game design and content creation. Whereas numerous sophisticated modding practices require the use of image editing and modeling software, and even demand advanced programming skills (modding in the narrow sense), in editor games, these practices (modding in a broader sense) have found their way into the gameplay itself. These games seem to be closer to the early game construction sets (e.g. Bill Budge’s *Pinball Construction Set* (1983)) and puzzlers (e.g. *The Incredible Machine* (Dynamix 1992), *Sid & Al’s Incredible Toons* (Jeff Tunnell 1993), or *Crazy Machines* (FAKT Software 2004)). Unlike sandbox simulations, such as *SimCity* (Maxis 1989), gameplay in editor games is not circled around a complex instant feedback system. Therefore, user-sided input is not subject to direct evaluation by the software itself and gratification is either delayed in time (*LittleBigPlanet*) or happens outside the game space altogether (*Minecraft*). In this context, online platforms for sharing user-generated creations become increasingly important and there is an extensive degree

of community building around editor games. These playboxes or sandboxes pose new questions regarding the player's motivation(s) and the appeal of a gameplay that consists of building a game world, rather than playing within one. Therefore, the material agency of the game (which usually becomes visible via the rule set, the game world, or the narration) seems to dissolve. Editor games, 'digital LEGO,' or 'co-creative open worlds' confront gamers and researchers with a new level of uncertainty and contingency. In this essay, we wish to investigate these issues, not only in theoretical terms, but within a case study of the games *Minecraft* and *LittleBigPlanet*. After a short overview of the characteristic features of these games, we will discuss some methodological issues, before introducing a media-ethnographically informed approach, which includes participant observation and screen capturing of a sample group's co-creativity, along with some of its results.

## 1: Lego vs. Playmobil

Computer games can be described as socio-technical assemblages (cf. Taylor 2009; De Paoli and Kerr 2010; Karppi and Sotamaa 2012)<sup>1</sup> which, to use a term borrowed from Science and Technology Studies, provide different scripts (cf. Akrich 1992) that set the scene for user practices.<sup>2</sup> These scripts become apparent as technical manifestations of design decisions which include not only the set of rules of a game, but also the enabling and restricting conditions of the game world, and the degree of freedom provided to the users by the overall gameplay. To describe the scripts used in editor games, such as *Minecraft* and

1. The concept of assemblages, as it is introduced in philosophy by Félix Guattari and Gilles Deleuze, has been adopted productively within the research of computer games. Taylor (2009) introduces a broad definition of the concept as a means to define the efficacious material and immaterial components of a particular field of study. "The notion of assemblage is one way to help us understand the range of actors (system, technologies, player, body, community, company, legal structures, etc.), concepts, practices, and relations that make up the play moment" (Taylor 2009, 332). For a more in-depth derivation of the term and its use in Game Studies see Karppi and Sotamaa (2012).
2. "Thus, like a film script, technical objects define a framework of action altogether with the actors and the space in which they are supposed to act." (Akrich 1992, 208).

*LittleBigPlanet*, we will draw an analogy between these scripts and the specifics of the philosophies of LEGO and Playmobil. In the case of *Minecraft*, this analogy is already used in the very marketing of the product. On the LEGO *Cuusoo* internet platform, in which users can submit and support ideas for new LEGO products, a *Minecraft*-LEGO-Set has become available after winning the popular vote through the support of ten thousand users within forty-eight hours.

Minecraft is about placing blocks to build anything you can imagine in the virtual world. You can build anything you imagine with LEGO bricks in the physical world. Minecraft and LEGO were meant to be together.<sup>3</sup>

*Minecraft* can be characterized as an open-world LEGO building set (cf. Schut 2014), in which the players move through blocky 3D landscapes that are procedurally generated at the start of every new game. These blocks represent different materials the player has to ‘mine’ in order to ‘craft’ items. *Minecraft* offers two different game modes: the creative mode, which focuses on the creation of complex structures by providing the player with an unlimited number of blocks (resources), and the survival mode, which compels the player to acquire and manage resources with the purpose of building a shelter to protect him/herself from the monsters populating the game world at night. Even the latter, more classical gameplay mode, relies strongly on editing mechanics (Duncan 2011).

At first sight, *Minecraft* may almost look like a counterdraft to current trends in the gaming industry, since its pixelated game world appears dated in contrast to the almost photorealistic graphics of the latest games. The action takes place in a sparse, empty, and relatively inanimate sandbox that adjusts its size according to the user’s space of action. Even the open, rather rudimentary, gaming mechanics seems odd in its ‘dramaturgy’, when compared with other contemporary games, especially narratively complex worlds, such as *The Last of Us* (Naughty Dog 2013).

*Minecraft* never tells the players what to do. They do not have a story objec-

3. <http://lego.cuusoo.com/ideas/view/4038> (accessed Jan. 2015).

tive, whether short-term or long term [sic]. How come *Minecraft* is not a mere level editor? (Léja-Six 2012: s. p.)

The action in *Minecraft* is neither structured through an obvious gameplay nor prescribed through narrative paths. Rules exist, but are unclear, and the player has to uncover them through experimentation, learn them through observation, or acquire them by reading information pages (such as wikis). It is this unmarkedness that poses new questions for Game Studies regarding the player's motivation and action.

As we compared *Minecraft* to LEGO, similarly, we may compare the overall appearance of *LittleBigPlanet* to some children's toys. The outcome of the design decisions has been compared to a miniature toy world like Playmobil and to puppet theatre, as it features an avatar called Sackboy, who is a reminiscence of the stuffed knitted puppets popular in Japan and known as *amigurumi* (cf. Westcott 2011). However, the scripts of interaction in the two games must be problematized differently, since they offer the player very different possibilities for action. *LittleBigPlanet*, released for PlayStation 3 in 2008, is one of the most prominent examples of the growing impact of user-generated content on the game market, especially in the console domain.<sup>4</sup> The story mode in *LittleBigPlanet* can provide from six to eight hours of gameplay and can be played by up to four players simultaneously. Nonetheless, the level editor is advertised as the central feature of the game and it offers a unique and ample array of functionalities – at least for console game standards. Users can publish their creations on the PlayStation Network through an easy-to-use sharing system, thus making them available to all members of the *LittleBigPlanet* community. The editable nature of *LittleBigPlanet* already plays a central role on the game's box art: "Use simple tools to make whatever you can think up." The developers have also realized the importance of distribution –so the advert continues:

4. Advertised by Sony as one of the most important titles of the year and highly praised by critics, Media Molecule's platformer building set is still regarded as a flagship of Gaming 2.0 (cf. Carless 2008; <http://www.metacritic.com/game/playstation-3/littlebigplanet>; accessed Jan. 2015).

“Go online and share everything with the *LittleBigPlanet* community.” Finally, the desire for innovation and the constant expansion of the game are correspondingly pointed out: “Download cool new stuff created by other *LittleBigPlanet* players. There’s a different game waiting to be played every time you go online!” The website Gamasutra describes *LittleBigPlanet*’s level editor as one of the most significant innovations of 2008:

*LittleBigPlanet* is as much about enabling gamers to participate in level design as anything else, which means its user design experience needed to at least approach the level of accessibility seen in more traditional gameplay. Certainly, creating a *LittleBigPlanet* level requires more investment of time and creativity than playing a *LittleBigPlanet* level, but it is telling that the lines between the two can be somewhat blurred. It is perhaps even more telling that, thanks to the game’s intuitive, real time nature of level editing, Media Molecule has shipped a creation mechanic that has proved enormously usable for end users while remaining standard issue for the studio’s professional designers. (Remo 2008)

Nevertheless, the meticulously organized editor structure provided by the developer appears to contradict the principle of “bottom-up modularization by users” (Jeppesen 2004, 10). Media Molecule’s system adopts many representative aspects of web communities, since it implements a sophisticated database system, which is organized through comment sections and Web 2.0 tag clouds.<sup>5</sup> In fact, *LittleBigPlanet* could be included in the wider category of digital mash-ups, since it lets players or users seamlessly combine popular cultural objects onto a single surface. The business opportunity for publishers lies in building markets to sell digital items comparable to free-to-play browser games and sometimes, in the case of *Disney Infinity*, provide a whole pre-scribed setting – simi-

5. However, shortly after the release of *LittleBigPlanet*, it became clear that replicating the structure of modding communities on a professional/commercial level results in an inexorably limited experience. The use of many beloved, yet often copyrighted, themes promptly compelled Media Molecule to reinforce the moderation of the online community and to remove those levels which contained legally protected material. As expected, these interventions encountered little enthusiasm within the community, but appear to be symptomatic of the commercialization/ professionalization of modding practices.

lar to the miniature theme worlds of Playmobil sets – that come with the ready-made commercially sold objects and characters.

## 2: EDITOR GAMES AND THE SCRIPTS OF PARTICIPATION

Editor games follow a similar path to the overall networked media economy as summarized by Web 2.0 evangelist Tim O’Reilly in his often-cited paper *What Is Web 2.0?* (2005). For example, many editor games appear as perpetual beta versions: the game never develops into a finished media object with closed borders and, therefore, never provides a panoramic overview over its affordances. On the contrary, the players can keep exploring and altering the game world in a co-creative way. This includes mashing-up existing content, combining provided building blocks, or even internalizing external contents, often by purchasing objects or scenarios. The content itself can also be provided by the users and can be included either in one’s own game world or in a shared one. In the case of *Minecraft*, in which users build their structures with relatively simple objects (blocks), the Web 2.0 factor comes in later in the process; users share their finished objects as downloads and video captures on YouTube – examples range from a true-to-scale Starship Enterprise<sup>6</sup> to a working computer that can be fed with algorithms.<sup>7</sup> *Minecraft*, it could be argued, represents an archetypical editor game. It takes some of the innovations of *LittleBigPlanet*, especially the editor appearance (albeit graphically different), that allows the direct editing of the level, using an avatar. However, *Minecraft* goes a decisive step further by completely erasing the boundaries between editor and game – always present in *LittleBigPlanet* – and thus transforming the constant editing of the game world into gameplay.

Consumer co-creative design has significantly opened up to the main-

6. “New Tour of the Minecraft Enterprise”, <http://www.youtube.com/watch?v=IXUkdrcey-w&feature=c4-overview&list=UUCVBDCCKZKEYeE4vveflZicQ> (accessed Jan. 2015).

7. “DEMO program of my redstone computer in Minecraft ‘BlueStone’” [http://www.youtube.com/watch?v=\\_kSnrT75uyk&feature=c4-overview&list=UUR714hG3j\\_XIVPTBJU-S71w](http://www.youtube.com/watch?v=_kSnrT75uyk&feature=c4-overview&list=UUR714hG3j_XIVPTBJU-S71w) (accessed Jan. 2015).

stream market through games like *Minecraft* and *LittleBigPlanet* – and it seems self-evident that, after the rise of the Web 2.0, a movement like Gaming 2.0 would arise. Nevertheless, the question remains as to which scripts of participation – using Akrich’s concept (1992) – are inscribed in these different forms of editor games. An analytical comparison between implicit participation inherent within the scripts of the software – users as providers of raw data – and explicit participation practices – users as providers of actual content – seems promising as a means to clarify the often conflicting nature of participative media cultures. In analyzing *LittleBigPlanet*’s editor, Trapp (2011) argues:

Though, at first glance, *LittleBigPlanet*’s editor seems to exhibit a strong ‘modding character’ through its in-game integration, on a second look, the level editor performs as a limited feature that only allows for a restricted and controlled degree of modification. The player essentially ‘plays’ the game as he designs levels within the boundaries of the given scope of action. (133)

While implicit participation is part of an underlying design principle (for example the sharing of links or the semantic annotation of contents) and is not bound to the deliberate decision to contribute: explicit participation depends on motivational factors and requires further commitment from the subject, for example active participation in a modding community (Schäfer 2011). The difference between the interface analysis and the praxeological perspective implied here constitutes a demand for a stronger consideration of the tools (since they inscribe the degrees of freedom into the gameplay) and the actual practices (since they show how the scripts are to be followed, counteracted, or even subverted) during the research of editor games. To date, research on the (cultural) history of co-creative games is scarce and, at best, it merely plays a role in the footnotes of texts on modding communities (Barton and Loguidice 2009). Consequently, discussing mods implies the existence of editing tools, but then again, usually just the end-products stand in the center of the debate, i.e. finished mods, instead of their development process. These “result-oriented considerations” (Gethmann and Hauser 2009, 9)

misjudge the agency of modding tools and their importance in design and editing processes (cf. Beil and Hensel 2011).

### 3: NEW METHODOLOGICAL CHALLENGES

First of all, playing practices are not clearly separable from everyday life any more (if they ever were), since casual games, gaming communities, and pervasive gaming undermine the distinction between play time and everyday activities. Or, as Malaby (2007) notes:

If by ‘play’ we are trying to signal a state or mode of human experience [...] – a way of engaging the world whatever one is doing – then we cannot simultaneously use it reliably as a label for a kind or form of distinct human activity (something that allows us to differentiate between activities that ‘are play’ and those that ‘are not’). (Malaby 2007, 100)

Like Johan Huizinga, Malaby (2007) regards play as an ever-present form of human experience as opposed to an activity clearly distinct from everyday life. Summarizing this point, one can state that playing and everyday life are not conceptually separable, but work as a practical distinction to locate specific experiences as a result of the script of the game. Furthermore, games can change over time, not only because of their rule sets, that prescribe different outputs at decisive passage points, but also through the practice of playing itself, sometimes with unintended consequences.

This is because any given singular moment in any given game may generate new practices or new meanings, which may in turn transform the way the game is played, either formally or practically (through a change in rules or conventions). (Malaby 2007, 103)

This means that games are not reducible either to rules alone or to the narrative paths that they offer. The practice of Gaming seems to be located in between the subject’s actions and the affordances of the technology in question. Affordances constitute opportunities for action which are deduced from the functionally relevant and invariable properties of an artifact, but depend on the subject’s ability to make use of

these properties (Gibson 1977; 1979).<sup>8</sup> Methodologically, this implies a constant sway of perspective. Akrich (1992) states:

Thus, if we are interested in technical objects and not in chimerae, we cannot be satisfied methodologically with the designer's or user's point of view alone. Instead we have to go back and forth continually between the designer and the user, between the designer's projected user and the real user, between the world inscribed in the object and the world described by its displacement. (208-209)

Therefore, playing produces a recursive quality that reveals itself in the processuality of play which is subject to emergent changes. In phenomenological terms, it is a fundamental experience in human life that we inhabit an uncertain world not built by us (cf. Malaby 2007, 107). In editor games in particular, players can overcome this uncertainty to some extent – a practice which then becomes challenging for Game Studies. The environments or action spaces of editor games serve as bridges between ready-made game worlds and the user's own creativity. The latter connects gaming with other aspects of life: in *Minecraft* (especially in its creative mode) and in *LittleBigPlanet* (in the analogous building mode) participation and creativity are not optional, but modes of interaction that are necessary in order to overcome the emptiness and uncertainty in the player's experience. Due to these characteristics of editor games – openness, unmarkedness, processuality – there is a need for fresh thinking and new methods of research, which take on a praxeological perspective to investigate games in the making.

8. Being physical properties, affordances are inherent to the objects in question. They are invariant to a subject's necessities and wants, but at the same time contingent upon the subject's abilities (implicit and explicit knowledge, experience, skill) in order to make proper use of an artifact. Therefore, affordances lie in-between the object and the subject circumventing the subject-object dichotomy, although the objects are granted primacy in the construction of meaning (Gibson 1977; 1979). Within game studies, the concept of affordances has been used in various contexts ranging from games for education, to theories of game design, to gamification (cf. Cardona-Rivera and Young 2014).

## 4: RESEARCH DESIGN

Aarseth (2003) argues that playing games is the only effective method of conducting research in Game Studies. He highly recommends that researchers should play to gain first-hand experience of the material. However, Aarseth also takes into account the use of paratexts, additional materials, such as manuals, reviews, and, more recently, Let's Play videos. In addition, he briefly mentions "observing others play" (Aarseth 2003, 6) as a resource for conducting research. Since the characteristics of editor games undermine the claim of an implicit player – which Aarseth takes for granted in his writings – who is inscribed into the fabric of every game and becomes visible as the script, we believe that it is not sufficient to intrinsically analyze these games. Research into co-creative processes has to look beyond the game space at the wider spatial, social, and cultural context of gaming (cf. Stevens, Satwicz and McCarthy 2008). Since there are many possibilities to play these games, the scripts in editor games are not strictly defined, but are subject to negotiation processes between the player and the game every single time.

### 4.1: Qualitative Usage Experiment

In order to deal with this forwarded uncertainty in editor games, we have decided to heed Aarseth's (2003) advice and observe other people play. For this purpose, we have conducted a focus group analysis with nine participants split into groups: one group played *Minecraft* and the other *LittleBigPlanet*.<sup>9</sup> During the course of a one-day workshop, the two groups used five computers and one PlayStation console. Members of the groups were undergraduate students and PhD candidates in Media and Theater Studies, Philosophy, and History.

So as to obtain comparable results – in this case comparable process routines – each team was assigned an objective. The task included, but was not limited to, building a castle. The task was specified and nar-

9. The focus group analysis took place during the "Summer Institute Cologne 2013", <http://sic.phil-fak.uni-koeln.de/19843.html> (accessed April 2015).

rowed down to Castle Wahn,<sup>10</sup> a late baroque-style, formerly moated castle, which was also the venue of the workshop, this made it both the gaming location and the desired outcome of play. The game modes used were limited to the creative mode in *Minecraft* and the level editor in *LittleBigPlanet*.

The experimental case study was conducted with two focus groups of players and one observer group. There were four people in the *LittleBigPlanet* group and five in the *Minecraft* group, while the observer group consisted of four people who were not playing. The uneven distribution in the groups did not constitute an obstacle, since the *LittleBigPlanet* group used one console with two controllers, and the *Minecraft* group had one computer per player. The computers were connected by a Local Area Network, so that the *Minecraft* players could collaborate on the same project. The two groups were playing in separate rooms.

The observation group used various documentation techniques: camera recordings (audio/video), to document the off-screen action; audio recordings, to conduct interviews and to document the discussions within the groups; and screen-capturing technology, to document on-screen activities. The last one could only be used in the *Minecraft* group, as it proved too difficult and expensive to capture the interface of the console game because additional hardware is needed in order to obtain high-quality video without limitations in the performance. Instead, for the *LittleBigPlanet* group, we aligned a camcorder mounted to a tripod on the TV screen. In addition to using the recording devices, members of the observer group also took notes, while watching the others play.

#### 4.2: Research Questions

The workshop was an experimental setting and a first approach to analyze the practices involved in playing editor games. It was also a first step to test and investigate different methods of data collection and evaluation. There was an overall methodological interest in the compari-

10. <http://www.schloss-wahn.de/>, (accessed April 2015).

son between the participatory structure inscribed into the appearance of the game and the actual participation acted out by the players *in situ*. Furthermore, there were specific research questions that could be answered through the analysis of the collected data. The most general question was related to the way in which players would approach co-creative open world games. Other questions were, for example, (1.) whether there are differences in approach between playing the unmarked game of *Minecraft*, and dealing with the rather prescribed world of *LittleBigPlanet* (2.) which pre-sets, rules, and modes of production would be agreed upon in the respective groups and (3.) would there be group dynamics or individual efforts to find a solution to overcome the unmarkedness of the interfaces?

## 5: FINDINGS AND CONCLUSION

As stated above, *LittleBigPlanet* and *Minecraft* offer different scripts for participation. *LittleBigPlanet* has a jump'n'run appearance – a gameplay mechanic that is also inherited in the editor mode of the game. Even though the interface seems to be intuitive, handling the avatars to build structures and to assign textures proved difficult. This was largely due to the fact that, in order to manage the menus, it is necessary to use a controller that selects the various items, colors, and textures via left/right/up/down operations and by rotating the control stick on the gamepad. In order to learn all the different operations, the game urges users to try out all the functionalities through tutorials, which seemed helpful at first, but quickly became cumbersome and delayed the actual building process. Since the editor mode in *LittleBigPlanet* was designed as a level editor for the game, there is an implicit appeal to build a playable construction. For example, because structures need to be climbable, distinct elements have to be joined by staircases and bridges. Another aspect inscribed into the jump'n'run editor is that the temporal structure is bound to causality and, therefore, screen space expands in a linear manner. The script urges builders to work from left to right. This is also reflected in the delete function: the player cannot delete isolated objects, but has to rewind

(going back in time), removing all the work done up to the point in which the desired deletion can be performed. This led to continual movement from left to right and, when players decided to start over and build a new structure, they moved to the right and opened up a new empty space.

*Minecraft*'s creative mode provides no tutorial guidance and only a few traces of the survival mode remain in the editor. The players are spawned in an open and empty game space, ready to go in all directions. The handling of *Minecraft* seemed to pose fewer problems to the participants of the study: the menus in the building mode are clearly structured and compartmentalized and making choices with the help of the mouse proved much easier than using the controller.

The main differences in the scripts lay in the player's degree of freedom, the underlying physics, and the overall orientation of the game world. *LittleBigPlanet* relies on jump'n'run mechanisms, this makes handling the game in the editor mode much harder at first. Users wishing to build something are distracted by the mechanics of the avatar – who is subject to artificial gravitational forces – and by the game space, rather than being able to concentrate on the translation of their ideas onto the screen and into the game world. Selecting the desired perspective is rather difficult, because players have the possibility of zooming in and out with the virtual camera in order to change the distance between the avatar and the depicted objects; in addition, objects can be variably scaled. The *Minecraft* avatars appear easier to handle, the setting allows more focus – there is no background voice giving instructions – and the physics are much more discreet.

In *LittleBigPlanet*, every element is freely adjustable, so there are no prescribed sizes. This hinders exact measuring making it difficult to link different elements to form a larger unit and to keep a consistent scale. Furthermore, nothing snaps into place, therefore combining pieces is difficult. This also holds true for the orientation: Once an object is rotated, players found it difficult to realign it horizontally.

## 5.1: Realism vs. Surrealism

In order to answer the question of why the two games afford courses of action as different as the surreal and playful attempt in *LittleBigPlanet* and the realistic and analytical attempt in *Minecraft*, one has to look at the scripts of these games, which allow, or prevent, certain patterns of action and which become fully visible while the game is played. The collected visual evidence points to certain properties that are crucial for the interactional experience.

The main distinctions in the creative approach of the two groups involved in the experiment can be described as divergent paradigms agreed upon by the members of the two groups. Foreseeably, *LittleBigPlanet* fostered a playful approach and design decisions were made *ad hoc* and in a spontaneous manner. In a pragmatic way, elements were chosen because they were immediately available, which means they were visible at the right moment and no further search operations in the item menus were necessary in order to identify alternative building blocks or structures. The names of materials in *LittleBigPlanet* are quite metaphorical and pictorial, resembling “digital copies of analogue materials” (Westecott 2011, 95): there are textures called “Aztec Gold” and “Aztec Jade”, “Red Deck Chair” or “Taxi Metal” (yellow framed by black and white stripes). These labels mix with rather concrete taxonomic descriptions: “Red-Painted Wood”, “Blue Glass”, “Mahogany Wood” or “Basic Polystyrene”. The elements are bundled in the “Popit” menu, forming different topics: “Balls”, “Bits and Bobs”, “Cogs”, “Food”, “Tutorials”, “Wheels”. The material section offers “Sponge”, “Stone”, “Wood”, and the general category of “Accessories”. Besides, there are several abstract shapes and functions to choose from. Players can paste stickers over textures and over the background. These stickers offer ready-to-use shapes to choose from: “Animals”, “Architecture”, “Body” (parts), “Colors”, “Decorative”, “Doodles” or “Concepts”. It is possible to cite various periods of art and architecture, e.g. one player labeled a sticker “baroque in a sense”.

In *Minecraft*, players can choose between different raw materials, such as wood, stone, or sand, but they cannot choose between specific objects of different shapes, because all the main elements are blocks of the same size. When approaching the actual building process, the players quickly agreed on taking a realistic approach. Realism, in this case, does not refer to a similarity in appearance, since building a castle with curved windows and doorframes out of blocks would have been impossible, but to an attempt to translate the brick and mortar structure of the castle into the block language of the game. What the players tried to achieve was mathematical realism in the manner of a true-to-scale digital model of the structure. This was achieved through the fieldwork of one of the participants, who first looked out of the window to estimate the height and width of the building, then later, walked outside with a pen and a piece of paper to count windows and bricks, and measure distances by rule of thumb and striding up and down. The result was the drawing of a sketch of a lateral view of the building, which was transferred to the whiteboard in the room. The drawing was later accompanied by a photograph of the castle, found online, which was projected on a screen.

## 5.2: Co-operation and Division of Labor

In *Minecraft*, players cooperated right from the beginning. At first, they encountered several technical issues, such as installing the game on every computer and setting up the LAN. When the building process started, the players assumed clear roles: a skilled player took command and oversaw the development of the work without damaging the group effort to crowd-source design solutions and to work out the ideal way to create a digital model of the castle. The analytical approach continued until the end of the experiment, despite some attempts at counter-gaming, in which one participant tried to undermine the constructive approach of the rest of the group by experimenting with TNT and trying to destroy what the others had built. For the rest, the *modus operandi* of the players was intriguing: the cooperation on the *Minecraft* project clearly resembled team work in a professional environment based on the division of labor.

With *LittleBigPlanet* the circumstances were different, as people had to work on the same screen, it was difficult to distribute tasks. Players were creating and working at the same time, and were frequently distracted by their own and each others' actions. Therefore, it is hard to establish what working pattern was developed: the participative environment of the game simply did not afford it (cf. Gibson 1977, 1979; Gaver 1991).

In *Minecraft*, the distribution of roles within the group led to a situation in which playing was coordinated towards efficiency. There was an accepted, and strictly adhered to, division of labor and every member of the team had a segment to work on, e.g. details of the façade, the roof, or the interior of the castle. This became apparent, amusingly, during the day and night circle. In *Minecraft*, time passes 72 times faster than real time, and, in order to skip night altogether, the player has to sleep, which is only possible by building a bed and lying in it at sunset. In multiplayer mode, every player in the game world has to be in his or her respective bed for the change to happen. The work day in our experiment was structured by the rising and setting of the *Minecraft* sun, simply because in the darkness of the night it was difficult, if not impossible, to work on the details of the castle. The beds were placed right in front of the construction site, so everybody could reach them swiftly. One *Minecraft* day equals 20 minutes of gameplay and every time dusk came along, someone would announce that all workers had to go to bed immediately. If someone was missing, the person was exhorted to hurry up and go to bed.

### 5.3: The Grid – Participation and Creativity

In *LittleBigPlanet* it is the foregrounding of the jump'n'run appearance and mechanisms that leads to spontaneous actions and playful arrangements. This includes the building elements themselves: these are not passive entities, but can fall down and move after they have been placed. For example, after being placed on its tip, a crescent-shaped object rolled over immediately. In *Minecraft*, the building blocks remain static, therefore they can be placed with precision. Once again, this shows that the

scripts of the editor games support different forms of creativity and prevent alternative approaches.

There were several attempts by two of the *LittleBigPlanet* players to focus and structure the building efforts on the castle and to plan the outcome. When one player handed over the controller to another, they had this conversation:

*LBP1: "Is there a plan?"*

*LBP2: "So maybe, as I said, we should start again with a plan? But on the other hand – maybe not!"*

*LBP1: "Let's try something that maybe looks like a castle."*

*LBP2: "All right, we can try. And what do you want to build?"*

*LBP1: "I'm not sure. Probably I could make the basement. Some kind of basement. Or the roof. Or the windows because I have those glass plates [...]."*

*LBP2: "Ok, so we start with what? What do you think?"*

*LBP1: "I just think a kind of shape."*

The different predefined elements, along with the selectable backgrounds, lead to a distributed aesthetic – different shapes, ornaments, and colors are combined together with freestyle drawings, there are only a few auxiliary lines to facilitate the exact placing of objects. In contrast, the analytic approach of the *Minecraft* group was supported by the transparency of the editor functions and, at the same time, by the opacity of the participatory structure, mainly the grid-like game world. The ever visible grid and the block shaped elements serve as mediators between the templates of the real world, the model in the minds of the players, and their actions on screen. It permits and structures the translation of the imagined look of the castle into the (block-) language of the game via the building blocks. With the help of the grid, *Minecraft* succeeds in introducing a frame of reference with clear and fixed relations, thus supporting the translation of metric dimensions into blocks. In this way, *Minecraft* encouraged the group to build a true-to-scale digital version of Castle Wahn.

Since the conversion factor is not defined by any script, the overall scale of the project was subject to a negotiation process and, in the end, was crowd-sourced. For example, the following conversation took place about the entrance door:

MC1: *“Now you count how many blocks appear large and longish to you.”*

MC2 *“According to the motto: ‘Imagine the portal of a castle and decide how long you would make it.’”*

MC1: *“Right. Or one length [of the castle] in general.”*

MC2: *“Look here [goes to the whiteboard]. The portal down here.”*

MC3: *“How wide I would build it? At least four [blocks], rather more. Depending on how high it is. We also have to consider the relation to the height.”*

MC2: *“I suggested building it six to eight. A width of six blocks, and eight blocks high.”*

MC3: *“Maybe we have to go outside again, to look at the actual height.”*

MC2: *“Well, this you see when you take a look outside.” [...]*

MC3: *“I don’t know, how many blocks do you need to build a window?”*

MC2: *“It depends how big you want to make them.”*

MC1: *“You can saw out one single block and look through already. But this is not a window.”*

MC3: *“It’s not a window, it’s a hole!”*

MC1: *“Yeah, but then you install glass and then you can state, this is a window.”*

MC2: *“All right. And if we build it two by two?”*

MC1: *“That looks silly. The bigger, the more blocks we use for the windows or for anything else the nicer it will certainly look.”*

MC2: *“The point is, we have to start out with one size.”*

MC2: *“And then we look at it, and check whether it is too big or whether we continue with this.”*

Similarly, the function of the basic *Minecraft* building blocks, which players arrange and rearrange within the game world, is subject to col-

lective decision-making. While *LittleBigPlanet* contains many elements that represent known and often popular artifacts, *Minecraft* only offers blocks with different textures and functions, like a box of LEGO. This does not mean that there is a higher degree of participation and creativity within *Minecraft*. It simply shows that there are different premises concerning the praxeological range of participation and creativity in editor games, and perhaps in the wider context of digital media. While *Minecraft* can be described as a digital re-mediation (Bolter and Grusin 2000) of analogue LEGO, its praxeological dimension is to use abstract and reduced building blocks to create structures that resemble their template's dimensions and on-site measurement. *LittleBigPlanet* seems to resemble a rather loose combination of different elements that are more or less fully formed. While the creative mode of *Minecraft* resembles playing with toy building blocks, or LEGO, the editor mode in *LittleBigPlanet* relies on the paradigm of compilation, remixing, and mashing-up to create collage-like surfaces associated with the content-sharing platforms of the so-called Web 2.0. Since the scripts of *LittleBigPlanet* do not directly afford the reversal of moves, the players have to leave behind their existing structures and move on to an empty space in the game world to continue building – this shows the cumulative character of the game. It is about constantly adding things, another similarity to participative practices in the Web 2.0, in which people keep on adding content and filling in blank spaces, rather than overwriting or deleting old or outdated contributions.

#### 5.4: Counter Gaming, Sabotage and Script Restrictions

Not all the members of the *Minecraft* group followed a realistic approach: one participant worked towards a counter-gaming strategy, trying to sabotage the work done by the others. At first, he tested *Minecraft*'s affordances for counteraction, digging holes and experimenting with explosive TNT blocks. After he accomplished several controlled detonations, he started building his own structure, which resulted in an underground dungeon-like tunnel system with several chambers. In one of the chambers he placed his bed, so that he could stay under-

ground even at night time. The anti-program of the player was in turn undermined by other group members and this happened both offline and within the game. One way of counteracting the single player's destructive behavior was reminding him verbally of the objective of the gaming effort. This was done by assigning specific tasks to this player, such as building one element of the façade. Furthermore, to abort the attempted sabotage, one member of the group flooded the tunnel system.

Counteractions like these could not be observed in the *LittleBigPlanet* group. Beside the fact that only two players can build at the same time, the game did not seem to foster a strategic group effort, except to overcome restrictions that the script introduced. One "mangle of play" (Steinkuehler 2006) which demanded coordination and cooperation is the way the virtual camera acts, as it follows only one player at a time (controller no. 1). For this reason, rather frequently one player would disappear and be lost outside the borders of the screen. This is a result of the jump'n'run orientation of the editor, which urges the players to orient their movements and their building efforts from left to right, since the original purpose is to build a playable level similar to the levels in story mode.

## 6: OUTLOOK

Within the praxeological comparison of the two editor games, our on- and off-screen captures and direct observation of players' interaction indicated great differences in the scripts of participation. *Minecraft* showed to be a multi-tool process, highly adaptable, and open for social negotiation. This was supported by the appearance of the building blocks whose design left plenty of room for the ascription of specific roles in the overall construction. In general, a cooperative script was provided by the technical structure of the game, as it affords cooperation in an open-source manner, in which everybody can open up a server (functioning as a distributed co-working space) and freely share content by distributing creations via a download link. The analysis, through a praxeological perspective, of the data gathered also revealed a strong tendency of

the *Minecraft* group towards a social organization based on the division of labor, related to the highly cooperative structure of the game. This intermingling of play and labor was traced back to the script that is hidden in the organization of the game space. It is the grid-like structure and the blocky elements that encourage players to take a very analytical approach using the blocks as the basis for a conversion table, to adjust and translate the real world to the grid (cf. Gehmann and Reiche 2014).

In contrast, *LittleBigPlanet* is part of a centrally controlled platform technology for playful level design which includes a distribution channel for user-generated content, rather than a tool of construction (Sotamaa 2010). The menus, the overall setting, and the fully formed shapes are not primarily meant for building things from scratch, but rather for combining and mashing-up existing cultural objects. Additionally, the technical pre-sets seem to be an obstacle for more than one player working on the same project simultaneously, since the automatic navigation of the virtual camera makes it hard to keep track of more than one avatar at a time. The editor mode prescribes the design and construction of a linear structure in the form of a jump'n'run game, the depth on the z-axis is limited, and it is not possible to directly delete particular elements. Therefore, the praxeological perspective reveals a rather accumulative practice in which things are constantly added, thus covering empty game space from left to right. This is just as it is on a weblog or on the Facebook timeline, in which nothing is ever deleted, but new things are constantly being added. The technical structure of *LittleBigPlanet* also supports sharing, but, in contrast to *Minecraft*, only via the central agency of the publisher, who, in turn, benefits from co-creative action, since user-generated levels extend the lifecycle of the game.

This essay is a fraction of a work in progress. There are, as yet, no definite answers to the overall question “What is participation?”, but research into the scripts and practices of editor games offers many starting points. A praxeological approach including affordances and taking actual user implementation into account proved valuable in beginning to define this new terrain of contemporary participatory culture.

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