Doing It Themselves! A Mixed-Method Study into the Motivations of Players to 'Create' in the Context of Gaming

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ABSTRACT

In this paper we explore how user-generated content in digital games can be conceived within the conventional knowledge of player motivations and uses. In this study we focus on players of two particular games: *Spore* (PC, Mac) and *LittleBigPlanet* (PS3). Both titles have been promoted as creative game experiences and have introduced several popular user-generated content principles into mainstream gaming. Consequently, we can ask ourselves if and how these new game mechanics have an impact on players' uses and gratifications? Our data have been collected through a multi-method approach, combining in‑depth interviews ($N = 8$) and an online survey ($N = 97$). The results show that the appeal of create-games lies in a mixture of traditional gaming motives and the will to create new gaming experiences.

Keywords
Digital games, User-generated content, motivations

INTRODUCTION

The idea of digital games being a space for creativity is as old as the medium itself (Sotamaa, 2003). Not only can the interaction of players within the virtual world of a digital game be seen as an act of creation (Juul, 2005), the digital nature of those worlds themselves is often perceived as an invitation for alteration and modification (Jansz & Theodorsen, 2009; Poremba, 2003). Player creativity manifests itself on many levels: players can create their own rules (Myers, 2008), adjust the look of their game characters (Ducheneaut, Wen, Yee, & Wadley, 2009), build new objects and even construct whole new virtual worlds (Postigo, 2007).

The basis for these creative expressions can be traced back to the digital foundations of the medium. Many early games are considered modifications of one another, and commercial titles such as *Lode Runner* (Brøderbund, 1983) pioneered the idea of user-created content with the introduction of a level editor. But it was not until the commercial rise of the internet during the nineties and the accompanying release of *Doom* (id Software, 1993) that user-generated content started to play its role as a commodity. After the many fan modifications of *Wolfenstein 3D* (id software, 1992), developer id Software understood that by supporting the production and distribution of user-generated-content it could expand the appeal of future titles (Sotamaa, 2003). Salen and Zimmerman (2004) describe this design philosophy as open system games, where players are allowed to change or enhance the structure of the game. According to the authors open systems can be defined as nonhierarchical, openly accessible, non-guided and emergent (Salen & Zimmerman, 2004). However, many game editors maintain a hierarchical relationship between producer and consumer and are restricted in their accessibility. A purchase of the game is for instance often required and it is uncommon for a developer to open up all game code for modification. In some cases, where the production of user-generated content is central for the functioning of the game, the building process can be highly guided as well. In the strategy title *Spore*, players are for example forced to create a new species in order to proceed the game. To accommodate this building process to players with different skill-sets, content creation is funneled through a restricting user-interface.

The level of freedom users are granted in their creation of content can be manifold. Until recently most level editors for console games were restricted to a set of pre-defined building objects and a strict limitation on available space for storage. Many PC games on the other hand deliver a creation tool similar to the *Doom* model in which players are allowed to code and design their own building blocks and have few restrictions regarding the size and structure of their creation. Technical differences between the two platform types can partly account for this discrepancy, but there is also the trade-off between accessibility and autonomy to be considered. The production of PC game modifications require in many cases elaborate knowledge on coding or graphical computing (Jansz & Theodorsen, 2009), while the workings of level editors on video game consoles are relatively easy to grasp. More recently, inspired by the rise of web 2.0 principles in the space of web design, some game developers have been trying to marry the sophistication of professional tools with the accessibility of a game console interface. At the same time they are attempting to bring user-created content out of obscurity through the use of centralized online distribution networks. In this study we will focus on two games that have been promoted as accessible creative experiences with endless possibilities: *Spore* (Maxis, 2008) and *LittleBigPlanet* (Media Molecule, 2008). In *Spore* players are asked to guide a specimen through the many phases of evolution, from unicellular body to space traveling conquerors. During each step of evolution the game asks to define the looks and characteristics of your specimen, and in later stages, their technologies and architectural

style as well. This implicates that the creation of new content is forced upon the player, since it is needed to progress in the game. User-created civilizations are automatically uploaded to a server and are used to populate the games of other players. With this user-generated content system a game universe is built that progressively grows with each new creation. In *LittleBigPlanet* user creation is less mandatory, but with the promotional slogan 'Play. Create. Share.' the game makes no secret of its focal point. The main game is a traditional 2.5D platform game that can be played with up to three other players. But through the elaborate level editor players soon breached the limits of the platform genre, with creations falling in the race, puzzle and shooter categories as well. Some user creations, such as calculators and musical contraptions, even outstretch the concept of a game. Levels made in *LittleBigPlanet* can be shared through a proprietary online network with typical web 2.0 features such as a tag, comment and rating system. After the release of *Spore* and *LittleBigPlanet* in the fall of 2008, other commercial titles have further explored the possibilities of deep, yet accessible user-generated content tools, such as *ModNation Racers* (United Front Games, 2010), *Minecraft* (Mojang, 2009) and *inFamous 2* (Sucker Punch Productions, 2011).

The openness of creation tools can lead to new forms of user participation. When looking at Raessens' categorization of video game participation (Raessens & Goldstein, 2005), games with editorial options are more suitable for reconfiguration and construction than non-editorial games. Reconfiguration is the manipulation and reorganization of in-game elements, while construction stands for the creation or implementation of completely new elements (Raessens & Goldstein, 2005). But not all players of digital games engage on every level of participation. Game developer Will Wright allocates player participation into four layers of a pyramidal model. On the base level exists a large proportion of the audience that simply enjoys the creations of others, they are not interested in creating content themselves. A second tier consists of players distributing user-created content and software patches. The third layer covers the small group of users that produces user-generated content or modifies existing game elements. On the top of the model we can find a select group of highly engaged users who create additional editorial tools (Herz, 2002, cited in Salen & Zimmerman, 2004). According to Bronstring (2009, cited in Morris) we can divide the player-as-producer group into four non-mutually exclusive types: Builders, Imaginers, Experimenters and Destructors. Builders tend to create content along a path of carefully consideration and thoroughly formed production methods. Imaginers, on the other hand, improvise "on the go" and seldom start with a well-defined concept of the end result in mind. Somewhere between the Builders and the Imagers fits the category of the Experimenters. This group of players create new content with the sole purpose of testing the limits of the tool or game environment. They build with a clear goal in mind but are less procedural than the Builders in their implementation of ideas. Destructors are players who build digital objects or environments in order to destroy them.

In this paper we explore how user-generated content in digital games can be conceived within the conventional knowledge of player motivations and uses. As a field of study, uses and gratifications depicts media audiences as actively seeking for need fulfillment during media consumption. An assumption that is not always easy to maintain when studying traditional media usage such as television viewing, radio listening and newspaper reading, but that has rekindled with the advent of new media forms such as digital games (Ruggiero, 2000). Consequently, game studies, as a young discipline, has already established some foundations in the field of uses and gratifications. Early studies were focused on arcade games (Selnow, 1984; Wigand, Borstelmann, & Boster, 1985),

while more recent research concentrates on topics such as the use of MMORPG's (Chen & Chen, 2010; Yee, 2006), sports games (Kim & Ross, 2006; Pasch, Bianchi-Berthouze, van Dijk, & Nijholt, 2009) and first person shooters (Jansz & Tanis, 2007). Sotamaa (2004) found four motivations for making game modifications in a study based on 23 e-mail interviews with members of a modding community: the pleasure of hacking and researching the game, self-expression, community-building and potential commercialization of one's hobby. Jansz and Theodorsen (2009) expanded upon these findings with a categorization of six motivations for PC game modding: improving the game, creativity, self-marketing, community, entertainment and out of love for the game. The results of their study showed that entertainment and community were the most prominent motives.

Although these studies are useful endeavors in the realm of their specific subject, they are difficult to interpret in the broader scheme of general play motivations. Extrapolating findings of one study to the other is in most cases problematic. Since all above studies postulate their own categorization of motivations the overall conceptualization is scattered and inconsistent. In an attempt to generalize, Sherry and Lucas (2003) assembled a taxonomy of six gratifications that can drive people towards the use of video games: (1) competition, the pleasure of defeating human or AI players, (2) challenge, the feeling of skillfulness, (3) social interaction, the experience of social connection, (4) diversion, a retreat from daily worries, (5) arousal, the feeling of excitement and (6) fantasy, the experience of the unreal. Although games will vary greatly in their fulfillment of these six dimensions, Sherry and Lucas' broad categorization can be implemented in a wide variety of game research.

METHOD
The data have been collected through a multi-method approach, combining in-depth interviews ($N = 8$) and an online survey ($N = 97$). As such, we provide both a qualitative and quantitative exploration of the motivations to play *Spore* or *LittleBigPlanet*, games which emphasize and promote the creation and the exchange of game content.

In-depth interviews
Eight players of *Spore* or *LittleBigPlanet* were recruited for in-depth interviews after the posting of an invitation on specialized game discussion forums and through a process of snowball sampling. This resulted in a mixed sample of four *LittleBigPlanet* players, one *Spore* player and three players who played both titles. Interviews were conducted in a domestic environment in order to comfort the respondents as much as possible. Moreover, this interview setting allowed us to enrich the data with additional knowledge of the interviewees' natural play environment. In one occasion this led to the respondent presenting his designs and demonstrating his building methods after the actual interview.

A topic-list with open-ended questions was used during the interviews as a guideline for structuring the conversation. Prior to the interviews three pretests were conducted in order to fine-tune the wording of questions. After the recording, interviews were transcribed and iteratively coded. A Grounded Theory method of grouping codes into concepts and categories was used.

Online survey
An online survey was distributed on six Flemish game forums: 9lives.be, Arena51.be, Mediamonkeys.be, Fragland.be, Playstation.be and the official Dutch Spore forum. Our invitation on the latter was removed shortly after our initial posting. 97 responses

remained after data screening, with 70 questionnaires completed and 27 partly completed. The survey contained questions concerning demographic characteristics, play habits and motivations to play, and concluded with two open questions related to the likes and dislikes of the games central to this study (*'What do you like about creategames such as LittleBigPlanet and Spore?'* and *'What would you like to change about LittleBigPlanet and Spore?'*).

RESULTS

Online survey

65 of our respondents are male (91.5%) and 6 are female (8.5%) with an age ranging between 12 and 50. The average time spent on playing games in our sample is 11,07 hours ($SD = 13.17$) with 2,01 hours ($SD = 2.68$) reportedly being spent on *Spore* and/or *LittleBigPlanet*. Respondents were asked to estimate in percentages how much of their playtime is spent playing alone or with others. On average 37.24% ($SD = 27.34$) of the time is spent online with others, 13.88% ($SD = 17.71$) is spent offline with others and 48.88% ($SD = 26.98$) is spent playing on their own. When asked about clan or guild membership, 66.70% of the respondents indicated that they are part of a clan or that they have been in the past. 38.30% are member of a guild or have been in the past. The average ownership of game playing machines (computers and consoles, handhelds) is 5 ($SD = 3.04$), with PC as the most popular platform followed by PlayStation 3 and PlayStation 2. The most popular genres are first-person shooters scoring a mean of 4.05 ($SD = 1.34$), action-adventures with a mean of 3.78 ($SD = 1.23$) and race games with a mean of 3.69 ($SD = 1.23$) on a five-point likert scale. The two genres associated with the games central to this paper: strategy (Spore) and platform (LittleBigPlanet) score fairly well with a mean of 3.56 ($SD = 1.42$) for strategy games and a mean of 3.48 ($SD = 1.35$) for platform games. Moreover, both genre preferences correlate significant and in a negative direction ($r = -0,190$, $p < 0,05$), possibly indicating that the mixed sample of Spore and LittleBigPlanet players lower the scores for both genres. With the lowest mean score being 2.54 ($SD = 1.39$) for music games and seven from the fourteen measured genres scoring higher than 3 on a scale of 5, respondents seem to have an omnivore taste for games, rather than specialize into one genre.

Motivations to play are measured using an extended version of the uses and gratifications scale developed by Sherry & Lucas (Sherry, Lucas, Greenberg, & Lachlan, 2006). The twenty items measuring motivations for Fantasy ($α = 0.78$), Arousal ($α = 0.67$), Competition ($α = 0.58$), Challenge ($α = 0.73$), Diversion ($α = 0.88$) and Social Interaction ($α = 0.76$) are supplemented by a new Create construct ($α = 0.65$) consisting of four items (*"I play games because they allow me to create new things", "Video games stimulate my creativity", "I sometimes play games with my own rules or I ignore the rules of the game" and "I often seek alternative ways of playing"*). Challenge scores highest with a mean of 3.79 ($SD = 0.81$), followed by Arousal with a mean of 3.43 ($SD = 0.72$) and Create with a mean of 3.28 ($SD = 0.81$). Scores for the other measured motivations are Fantasy with a mean of 3.26 ($SD = 0.99$), Social with a mean of 3.17 ($SD = 1.05$), Diversion with a mean of 3.10 ($SD = 1.01$) and Competition with a mean of 2.58 ($SD = 0.77$). In general, all motivations score relatively high, which supports the omnivore tendencies of participants' answers to the game genre preference question. This comes as no surprise, as games such as *LittleBigPlanet*, and to a lesser extent *Spore*, allow for multiple forms of play. Furthermore, Create correlates with Challenge ($r = 0.64$, $p < 0.01$) and Arousal ($r = 0.39$, $p < 0.01$) which could indicate that creation is challenge-related. When splitting the responses between participants who play 'create-games' no more than

one hour each week (the median) and those who play more, a significant difference is found on the motivation to create using an independent t-test (t =-1.856, df = 64, p = 0.034). People who spend more hours playing create-games score higher on our Create motivation scale. All other motivations score higher in the 'higher use of create-games' group as well, but none of these group differences are significant. It is important, however, to note that playing create-games does not necessarily equate with using the create tools.

Finally, when asked about participants' past creative game experiences, results reveal a strong orientation towards game creation. In the past, 81% of the participants used a level-editor, 56% completed the construction of a full level and 15.5% participated in making a mod. 20.2% even indicate having contributed, at least once, to the development of a game. These last two activities require in most cases specialized knowledge on coding or graphical computing, revealing a strong willingness to create in at least a subset of our sample.

In-depth interviews

In our depth interviews respondents indicate playing almost all game genres and multiple motivations surfaced. The possibility to create is mentioned by all interviewees, but not always in a similar manner. Some are involved in the actual production of user-generated content. Their main motivation for purchasing the game is to create new game content. Playing the content created by the developers is merely a way of becoming inspired and unlocking new build-options.

> R3: *"In the beginning I played a lot of levels. But I did that to unlock objects for building levels myself and also to look at what they [the developer] were doing, how they use those objects, so that I can come up with ideas to make my own levels. I play especially to get inspired."*

Others appreciate the create option for its direct effect on the available content. These players simply enjoy the contributions of more creative players, but are not interested in building new content themselves.

> R8: *"User-created content is one of LittleBigPlanet's most innovative things. I think I could still pick it up in ten years and play it. Just because there will always be new levels that I have not played."*

Three main reasons are given for disregarding the level-editor: a lack of spare time, not relaxing enough and a perceived high quality threshold. The last touches on a social and utilitarian dimension of creativity. Participants seem to place their own creative potential vis-à-vis the quality of available user-generated content. Building new levels needs to be justified in the ecology of existing user-created material; it needs to add a worthwhile new game experience.

> R6: *"You can see that the tools alone are not enough, you also need to have a vision. It is fun to divert for five minutes by making something silly. But if you want something structured, something that everyone can play, and is organized, then you really are busy for some time. Then you really have to know what you are doing."*

R3: *"I have been thinking: "Am I making this [level] so that other people could play it? Am I making this [level] because I am out of things to play and I want to create new challenges? Or am I making this [level] because it is just so fun to do?" And I think it is a bit of a mixture of them all."*

Likewise, interviewees using the level-editor mention the importance of user-input during the course of the design process. Building user-generated content is perceived as a challenge, which needs to be on par with an implicit, socially constructed standard. This threshold for succeeding probably results from the quality level of other user-generated content and/or the feedback from other players.

R1: *"It is probably a lot more user-friendly in comparison to other [games], but there is still this barrier to overcome before you can really make a good level."*

R3: *"I find it very pleasant if other people enjoy my level. Then I feel like: " Yes, I have made an amusing fantasy world". I build my levels so that there are a lot of fun things in it. So that people who finished the game are put in a situation where they say: "This is fun. This is something I have never experienced before". Then I feel happy because I know that I created something new, something that nobody did before."*

CONCLUSION

In this study we have explored the underlying motivations to build user-generated content in the realm of digital games. More and more commercial titles, in a wide range of genres, seem to incorporate comprehensive tools to create and share content, and widespread phenomena such as *LittleBigPlanet* and *Minecraft* show that at least a subset of the gaming audience embrace these newfound options to create content. In order to provide explorative data in breadth as well as depth regarding this new play demographic, we have chosen for a mixed method, consisting of an online survey and in-depth interviews.

The results of both the interviews and survey signpost an audience with an omnivore game taste. Participants of the survey scored relatively high on half of the genre preferences and several motivations seem to support their play habits. This picture of a broad interest in many different game genres and corresponding motivations to play was reestablished during our interviews. Most interviewees avoid only a few genres and indicate that they diversify between many different game types.

An extended version of the Sherry & Lucas motivations scale was used for measuring the play motivations in our survey. Challenge, Arousal and the newly formed construct Create are the three highest scoring motivations and all three correlate significant with each other and in a positive direction. With the limited data of our research we are not able to give a thorough explanation for these correlation, but it would not be too farfetched to assume that facing a challenge is often accompanied by a certain form of arousal. Furthermore, the act of creation is probably in most cases goal-oriented and as such can be seen as a challenge. This assumption is strengthened by the results of our interviews where some respondents felt that creating user-generated game content was too time-consuming and too demanding for their mode of play. Also, the perceived high quality of available content seems to confront players with a challenge that is often too hard to face. The level of polish reached by existing content serves as a benchmark to be met in order to justify the time put into the creation process. If players do not believe they

can produce a valuable new addition to the game world they are likely to ignore the use of creation tools.

DISCUSSION

The results of this study are based on a limited online survey and eight in-depth interviews. Therefore we cannot warrant that all relevant user-types were present in our sample. The responses on our online survey were mostly acquired through the use of Flemish discussion forums, increasing the likelihood of distorting the composition of our sample in certain directions. Furthermore, the eight interview participants were partly recruited by using a snowball method. One of this method's drawbacks is the increased chance for sample distortion, since the selection is done in a smaller social circle. In our research this resulted in an overrepresentation of *LittleBigPlanet* players at the expense of *Spore* players.

One of the difficulties in researching user-generated game content is the fact that many different game genres are encompassing the phenomenon, and that the incorporation of creation tools in games varies widely. In retrospect, *LittleBigPlanet* and *Spore*, the two titles in our study differed on many dimensions. They are part of different game genres, are published on different platforms with a dissimilar user-interface and utilize user-generated content in significantly different ways. By combining the responses of *LittleBigPlanet* and *Spore* players we might have muddled some relevant differences between both player-groups in the process. On the other hand, many game genres and accompanying styles of user-generated content are not included in this research, limiting the scope of our data. For example, Fighting games are one of the least popular genres in our sample, but if we had included the beat 'em up game *Soul Calibur IV* (Namco Bandai, 2008), a game in which players can create new fighters, we would probably obtained different results.

Consequently, it would be interesting for future research to further explore user-generated content in the context of different game genres and play styles. It could be meaningful for example to investigate the interplay between the role of user-generated content in the overall game system and its possible effects on play habits. In the MMO game *Love* (Eskil Steenberg, 2010), players are for instance allowed to alter the looks and overall structure of the game world. But different to many other 'create-games' this constantly modified game world is shared with other users. User-creation in such a design model seems strongly intertwined with the social fiber of a broader community. During an ethnographic study concerning user emigration between different online communities, Pearce, Boellstorff et al. (2009) already noticed that radical changes to the virtual world initiated by one user-group without consulting others could lead to social tensions. Analyzing different contexts for user-generated game content and their possible influence on play behavior can help improve our understanding of creativity and its underlying workings.

Finally, more research in the domain of player types is needed. Current categorizations are seldom grounded on empirical data and might change depending on the content and structure of create-games. Especially player types such as 'Builders' or 'Community Enhancers' could be interesting focal points for further exploration. Another related matter that could be appropriate for future analysis is the player-producer relationship. Diminishing boundaries between users and producers of games might lead to new, and sometimes conflicting roles. Player transactions of gaming avatars and other virtual items through online auction websites are already in the center of a legal debate concerning

ownership (Adrian, 2008). It is possible that this tension between players and game producers worsens with the commercialization of user-generated content. Consequently, it is important to improve our understanding of the user-producer relationship in the broader scheme of fan-productions.

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