The struggles of diversity in gaming: an analysis of gender representation in crowdfunded games

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ABSTRACT

Crowdfunding games has become a much-accepted practice by the industry and gamers alike, from new developers to established names in the industry. In this paper, I analyze how diversity is presented in 145 Kickstarter-funded games available on Steam in light of the gendered history of gaming and the unique relationships between producer and consumer proposed by crowdfunding practices. The conclusion indicates that despite having more creative freedom most crowdfunded games follow the same practices of the major players in the industry. However, these games also present refreshing approaches to female representation, indicating that independent games are still a site of innovation and progressive thought in videogames industry.

Keywords: crowdfunding, gender, Kickstarter, videogames, indie games

1 Introduction

This paper starts with two premises. The first premise is that crowdfunding is inherently a communicative-cooperative practice that alters the usual business model regarding the creation of a digital game [20] A crowdfunding-based project is often open to backers' opinion and influence on how the game turns out to be in the end. Such relationship improves the average game-consumer figure to that of a producer and investor. The second premise is based on the work of Adrienne Shaw [24] for whom diversity of representation does not equal identification. The presence of women or transgender characters as games protagonists does not equals fair representation neither determines immediate identification Starting with these two premises this paper analyses 145 Kickstarter successful projects currently available for purchase on Steam Store. Quantitatively the goal is to identify how many projects invest on a set of main characters that are not the traditional White-male hero neither cartoonish\animalistic versions of it. The qualitative analysis will dig deeper into selected projects with female protagonists to assess their representation. The hypothesis is that independent game producers that rely on crowdfunding have the potential to be more open to gender representation than the big names of game industry. Due to less concern with profit, no-strings attached to a company ideology and a creatively open process of game creation, independent producers are a potentially ideal path for gender and sexuality equality campaigns such as #iNeedDiverseGames to thrive. However, crowdfunding as an inherent process of coproducing can create situations of constraint that affect diversity within the digital game industry.

2 THEORY

To ground the discussion theoretically, this session is divided in three parts. The first discusses briefly the protagonist role of gender in shaping videogames industry. It shows how the correlation between academic research and the male-oriented videogames industry, and how the three phases of academic inquiry into videogames and identities gradually encompass the complexity of the phenomena. The second part explains what the practice of crowdfunding is: a communicative practice of production and consumption marked by experience [20]. The last session presents a discussion on independent videogames production and what it entails.

2.1 A gendered videogames industry

Videogames research has, since its first published works, dealt with matters of diversity within a highly male-gendered and heteronormative industry. Gabrielle Richards identifies three waves of videogames research that was interested in understanding the imbalances of gender and sexuality in videogames content and industry. The first wave is characterized by the search of differences on the experience of play according to gender [23]. It is represented by the researches that led to the publishing of Justine Cassel and Henry Jenkins book [3], with discussions mostly preoccupied with matters of representation and gender equity. The second wave of videogames and gender research identified by Richards aims to fill observe videogames within broader socio-cultural contexts that includes, for example, the industry and the power structures in it, sexism and homophobia, among others [23]. Lastly, the third wave of videogames and gender research aims for an intersectional approach of gender, race, class and sexuality [23]. The third wave ruptures with an approach that treated the study of gender as based on just differences in gaming that was predominant in the first wave and followed to an extent in the second wave. Indeed, it moves from dual research interfaces such as gender and videogames or sexuality and videogames to a more productive research approach to intersectional identities and videogames. Despite many years since this 'first wave', much of those initial concerns are a persistent problem in videogames culture. Marginalized groups, such as women and LGBTQA+ people, still struggle to find respectful content in games regarding representation; and safe spaces in online/multiplayer environments where they will not be received aggressively or

have their gender/sexuality used as a manner of offending other players [23].

Scholar Helen Thornham argues that the perception of videogame practice as a 'boy thing' potentially affects women's adherence to gaming, as it became a highly masculine and heteronormative culture despite its diversity of players [28]. This divide happens not only in consumption but also production, as argued by Judy Wajcman [29]. She claims that the simple fact of having free access to technology from a young age facilitates the involvement of boys/males with the videogames industry later. They are enticed by it from an early age, which, she argues affects the choices of career paths. Shaw [25] and Johnson [13] argue that gendered and heteronormative videogame development companies hinder diversity and points that the industry can benefit from a more diverse work environment. Kerr argues that gender balance within workspace leads to more female acceptance to a certain extent regarding videogames, and cites Brenda Laurel's "Purple Moon" company as an illustrative example [15]. Part of the "pink games" movement in the nineties, Purple Moon aimed to develop videogames for girls, but closed its doors after six years on the market.

An alternative thought regarding the politics of production is offered by activist and game developer Anna Anthropy [1]. In her manifesto, she argues that the main path towards a "real" change in videogames content is not workforce diversity in the development studios, but the popularization of game-making technologies so that potentially everyone could develop their own games mirroring their own experiences and identities. She believes this would partially solve a problem she identifies as the industry being a "gatekeeper to game creation" [1], which submits developers to a high level of control and ends up producing very similar kind of games, marketed towards the pre-made audience of the gamer. Indeed, another aspect of the politics of production is related to decision-making processes regarding the production and release of certain games over others: which videogames will be sold to the carefully constructed audience, how much potential profit will be made from that title. Growing the market to cater for a diverse audience is simultaneously a move the industry should do but is reluctant in doing [15].

This historical background of a masculine, heteronormative and white industry is crucial to understand why crowdfunded projects still face difficulties in developing for diversity. Indeed, as the analysis shows, despite having great examples of meaningfully diverse games, the majority of crowdfunded games tend to follow the established practices of the major players in videogames industry.

2.2 On Crowdfunding

In previous research with the comics community in Brazil (Lima, 2014), I argued that a crowdfunding process is an experience based on a communicative-cooperative relationship between a triad formed by the project creator, the platform, and the backers. A successful project relies on the balance between the triad, with each of them having different duties. The creator is responsible for the form and creativity of the project, including rewards, advertising campaign and engagement with the public. The platform must have resources to facilitate communication with and from backers, such as videos and comments sessions, foster community through curation and publicity of projects, an easy to use payment system and be solid and reliable for users. The backers, although apparently having the only function of giving

money on a first glance, can engage as more than 'mere' consumers in this process. Engagement can happen with a one only contribution, but it can also be a shared link on Facebook or Twitter, a comment on the fan page and even giving suggestions to creators to modify their work. The mutual, dialogical relationship between the triad is vital to form a community of trust, an important lever to a cooperative system [2]. Allowing the backers to engage actively in the process is key for success, giving them the opportunity to assume a leading role in other aspects of the crowdfunded project [20].

Smith [26] raises a similar argument regarding crowdfunded games. He analyses a set of projects from Kickstarter, including Republique¹ and Shadowrun Online², focussing on the relationship between backers and project creators and how they influence the production process. The author finds that there is limited but significant influence that happens during the campaign and after. The array of influences goes from questioning a game's revenue model in the case of Shadowrun [26] to community input that leads to change in design features, on République. During a post-campaign phase, the backer could vote in character designs via polls or, depending on the reward system and the amount of money donated, be an early bird beta tester and help developers to fix problems with the content [26]. Smith's findings are similar to my previous work regarding user engagement and influence on the process of crowdfunding. It also demonstrates how different modes of funding can result in new constraints to production as the backers often like the idea of co-creation that crowdfunding is based on.

2.3 Independence, money and greenlights

This is the path any project will usually follow: somebody has an idea; they can do it alone or recruit other people to make the idea happen; they need money and try to source it using different means; they finally get the money and make a product; and they find a way to distribute it. A long process that becomes particularly difficult for independent producers in videogames which are often expensive to produce. However, with resources such as crowdfunding and Steam (among other online platforms) available and of easy use, the long process has become less of a burden to game developers from amateurs to professionals. Indeed, the path that happens with the games on this research is "idea – Kickstarter – community – Steam", relying on the online multitudes of fans and gamers to fund interesting projects.

Kickstarter is the largest crowdfunding website in the world and, as such, attracted the attention of game creators as a potential place for funding their projects. Single developers, small teams, people with expertise on the industry, complete novices, and even famous names of games industry – such as Tim Schaffer and his record-breaking project *Broken Age* - have successfully used it. Such diversity of producers making use of crowdfunding begs the question: what is an independent game?

One way to look at it is from a business angle. Independent production would then be the one not attached to the big players of the industry - a very restrict group - usually work with smaller budgets and teams, and has a culture of its own when it comes to distributing, using online portal such as Kongregate [11,21]. According to Martin and Deuze [21] there is a "thriving 'indie'

¹ This game is part of this research data and one of the few to have a female leading role.

² This game is part of this research data and has both male and female leading roles.

game scene", which they approach with definitions used by media, gamers and developers as "a type of development next to, or juxtaposed with, the mainstream process of creating, marketing, distributing and playing digital games" [21]. However, the authors argue that the real "independence" practiced in videogames development culture is different, closely related to the increasing outsourcing of production and distribution, where big companies merge the small ones into their development cycle. Aphra Kerr for instance shows the complexity of the production cycle of games, highlighting the problems that arise from the constant use of second and third-party developers as part of the production teams, outsourcing functions, such as testing, in order to reduce costs [15].

We can also approach independent production as a potentially radical opposition to the Triple A industry if we look at the practices and ideas of developer and activist Anna Anthropy. She advocates for a game development scenario where everyone can produce games using tools such as Game Maker, RPG Maker and others [1]. Software's that simplify the complicated language of coding facilitate people's engagement in the production of their own short games. Such move, argues Anthropy, foster creativity, innovation, and diversity both in terms of game genres, themes and creators. Indeed, creativity and artistic freedom is the other angle to understand the meaning of independent production. Harvey [8] argues that, for transmedia projects, independence allow creators to stretch boundaries and work in a variety of platforms with no need to worry about constraint imposed by the intellectual property owner. Important to note, however, that the artistic freedom that independence produces "tends to mean less freedom in other arenas" [8]. It is the case, for instance, of lower budgets or less opportunities for funding which crowdfunding helps solve- but it also leads to new constraints.

Considering both the business and artistic issues related to independence production, one last discussion is necessary, the content distribution. Kerr [15] points to the difficulties of pitching games to big publishers by the small companies as publishers are less inclined to take risks with content innovation, usually a characteristic of independent games. Steam, the Valve digital distribution platform, became one of the main players on the independent games scenario as an alternative to distribute games and make profit. Jenkins et al [11] argue, based on Anderson's "Long Tail" logic, that the combination of media products and texts with the formation of a community that can discuss and evaluate content is a new form of curating content, "material which has been appraised and situated via the community's collective action" [11]. This is the logic applied to Steam Greenlight. Through this system implemented by Valve, game developers can upload data about their game (text, video, audio) and the community can vote to either approve the game to be part of Steam library or deny it entrance. When it comes to crowdfunded projects, it is fundamental that the project creators develop a close relationship with their backers in order to make Greenlight possible. Community can also comment and evaluate the games on Steam platform, which can "hype" a game within Steam, so that developers make more money and success with their independently funded projects.

Independent production and development are, as Anthropy [1] said, good means to an end when it comes to diversity in games. The hypothesis in this paper is that independent games can be more open to a necessary diversity within a male-oriented industry as pointed out by numerous scholars [25, 31, 15]. Artistic freedom and co-creation can foster such diversity of voices during the production process. ESA recent report [5] demonstrates how the "male gamer public" is an eschewed perception of gamers

composition. Women comprises 44% of the gamer community, with adult women surpassing the amount of under 18 year old males (33% against 15%). The following analysis intends to dig into the numbers of a small segment of the independent gaming industry, those funded through Kickstarter and part of Steam library.

3 ANALYSIS

Both a quantitative and a qualitative content analysis are part of this paper. The data includes 145 Kickstarter successful projects that also received approval on Steam Greenlight and are available for purchase on the famous digital distribution system. Based solely on the game campaign material on Kickstarter³ and on the game videos, images and text available on the Steam page the research intended to find out how many female protagonists were present on these games; how many male protagonists; how many shared leading roles between male and female; and the presence of woman developers as project creators.

3.1 A quantitative overview

Five categories summarize the modes of control exerted by the player either through a digital avatar or a screen with commands: female lead, male lead, mixed gender lead, godlike and other. Whereas the first three are self-explanatory, the last two merit further explanation. The category godlike (15/10.3%) refers to a genre of game where the player does not control a visible avatar. Although in some of them it is possible to build gendered beings as part of the game mechanics, they do not have a leading role, therefore are not included on the data for female and male avatars. The category other (32/22.1%) encompasses robotic and nonhumanoid (cars, ships) controllable avatars, puzzle games, procedural games, animal ungendered avatars and any other game that did not portray a clearly gendered character on a leading role. One exception made on this category is the game The Fall where a female voiced artificial intelligence is the main character controlling the body of the unknown human inside a suit. This game is part of the "female protagonist" data.

Two games that could belong to the *other* category had animal-humanoid gendered characters. As those were clearly identifiable as male or female (*Armello*, with male and female avatars, and *Octodad*, a male avatar), they are considered as gendered avatars.

From 145 games, only 13 (9%) of them had a female lead as an exclusive choice of avatar while 32 (22%) offered only a male character as leading avatar. More than a third of the games (53/36.6%) offered to the player the opportunity to play as either a male or a female character. In a research with similar methodology, Williams et al [31] observed the relationship between the top selling games, the percentage of characters according to gender, age and ethnicity, and the American percentage for the same variable. They found an even greater disparity regarding gender considering every character in game, with 86.1% of them being male in contrast with 13.9% of female. The numbers are further away when they consider leading roles, with male characters achieving 89.55% and female 10.45%. If we consider only the games with either male or female characters, the Kickstarter-Steam proportion is better than the industry average

It is relevant to point that a crowdfunding campaign often happens on social media and other more traditional media, such as newspapers and magazines. It is possible that most of the interaction between producers and backers happens via social media and further study exploring these alternative channels could prove valuable to gather more knowledge on the subject discussed here.

but still with a huge gap. Considering 45 games with a sole option for protagonist, 28.9% of the games have a female leading role, and 71.1% male protagonist.

Observation of both Kickstarter and Steam pages of each game indicate that a great number of these games had no equal proportion between male and female options, following patterns of classic beat'em up games like *Streets of Rage* with one female option against two or three male options. Games that could be classified as MMO, MOBA or RPG, allowed the player to build and customize a main character from both genders. The presence of hypersexualized representation of women is also an issue that repeats itself on a number of games from the "mixed gender" category. In-depth research of these games content might prove valuable to understand diversity in the context of crowdfunded and independent game development.

Regarding female employability in the development teams of crowdfunded games, 36 (24.8%) projects had mixed teams. These numbers are in consonance with IGDA findings regarding gender diversity on game industry[5]. According to the 2014 IGDA report, self-identified female developer forms 22% of the demographics of game industry, while 76% self-identifies as male. However, both mine and IGDA data do not provide accurate description of which functions women assume on the development teams. Even if half of these female employees have a leadership position, it is still a quite timid presence in the industry. The similar percentage found on this research sustains IGDA findings. Although it was possible to find women as part of development teams in other projects, a great number of others had only men (58/40%). Curiously, many did not have information available about the employees of the development company (51/35.2%). It is important to note, however, that in some of the teams it was possible to identify that the female employee did not have a development function, but rather working on internal communication and internal affairs. It is possible that the percentage of women developers in crowdfunded projects is actually less than the IDGA report states.

3.2 Diversity and representation

As the numbers above demonstrate, diversity is questionable in the 145 games of this data when it comes to female lead-only games. They are less than half of the male-only games, and even adding the 53 titles where there is a shared leading role or the possibility to build a female character, they are present in less than half of the games overall. That poses an alert regarding an independent production that mimics the numbers of the big players of games industry. Two additional points are worth mentioning. It was not possible to identify in any of the analysed content mentions to characters sexuality. Anecdotal evidence demonstrates white prevalence in terms of main characters as leading roles, a problem that is long discussed in academia [14,18]. These data speak to a broader context of gaming that a) persists in favouring a 'technomasculine' audience formed by white and heterosexual males [17]; b) is influenced by a social system of oppression regarding gender, sexuality, race and otherness in general [4,9]; c) underrepresents and/or misrepresents minorities [24,31].

I intend here to discuss what the representation of women in the 13 games where they appear as the only possibility of lead playable character. The original hypothesis believed that independent, crowdfunded games could possibly be more diverse regarding gender and sexuality. The numbers seem to prove

otherwise, even when accounting the mixed gender leading roles. However, it is still worthy an analysis of these characters and their roles in order to assess what kind of representation appears on these games. Adrienne Shaw [24] says that the representation of marginalized groups does not equal identification with those characters by those that share similar identifier. Nonetheless, the author also emphasizes that representation of marginalized groups in games is important when it happens and is done properly as "representation provides evidence for what forms of existence are possible" [24]. Therefore, it is noteworthy that the female characters of the games analysed here deviate from what is common in the games industry. They do not have oversexualized bodies as eye-candy for the player gaze, although some of them could be considered as influenced by the standards of beauty in society - Erica Reed, from Cognition and Alicia from AR-K for example. Their backgrounds vary, from housekeeper to detectives, children, daughter and a barista.

The game Sunset, from Tell Tale games developers couple Auriea Harvey and Michael Samyn, is set in an alternative version of a 70's South American city and has as leading role the only person of colour of this data. Angela Burnes is a US citizen trapped in the country of Anchuria due to a coup d'etat and works as a housekeeper of a wealthy man because the new government does not recognize her diploma. The story has many political themes and according to the developers, Angela is "inspired by the Black Power and civil rights movement". It is interesting as both plot and example of representation in this sample: the only black woman in a leading role is presented having an academic diploma in the 70's, is ideologically close to left-wing movements, and is shown as a character with strong personality and curiosity. This is not a profile often seen in videogames. Sunset is one of the few games addressing intersectional identifiers of race (black), gender (female) and class (despite the diploma, she has to work in a low pay job). The game follows a tendency pointed by author Gabrielle Richards [23] in which a "third wave" of gender studies in games is primarily interested in matters of intersectionality and how it appears in videogames content. Shaw [24] also states the necessity for representation of minority groups to consider the intersectionality of identities. To an extent, Sunset achieves this discussion. The artistic freedom of independent production allows these themes and representation of minorities, a "risk" rarely taken by the major industry players.

Female characters are also present incorporating the persona of a "detective". Three games deal with investigation scenarios, a common theme in videogames. Hot Tin Roof: the cat that wore a Fedora is a remarkable case. It is one of the few games to have a woman as project creator, Megan Fox, founder of the company Glass Bottom Games. It is innovative in terms of design and gameplay, a mixture of point and click adventures with side scrolling action. The main character is the detective Emma Jones and her partner, a cat named Francine, and the action procedes with mystery solving and witty humour. Ar-k, developed by a mixed gender team of the Spanish company Gato Salvaje, is another point and click/detective game. The video on Steam page gives voice to Alicia as she tells her story, a strong woman that wanted to be a cop but framed for a crime she did not commit. She goes back to university and gets a degree on investigative journalism while living a life of parties and one-night stands. In one of these events, she reencounters the golden ball that lead to her expulsion from Police Academy and sets on a journey to uncover the truth and clean her name. It is possible to perceive a strong character that walks with her own feet to resolve her issues, similar to Lara Croft. The same applies to Erica Reed from Cognition, a successful FBI Agent with the power to see the past.

Another common role is the typical action heroin. *The Fall*, from Over the Moon studio, has a particular female protagonist, an artificial intelligence named ARID that controls a suit after its human owner suffers a crash and is unconscious. ARID goes on a perilous journey to save this person on a quest that "ultimately challenges the very rules that are driving her". Another fighter is June from *Akaneiro*, developed by Spicy World. The character bears design resemblance to Red Riding Hood, coupled with swordsman skills among other powers. There is not much information available on the main character, but it is worth noting that the game design does not transform June into an exotic underdressed killer, as it is customary in the industry for action-oriented games starring women, such as infamous *Onichambara* [6, 10, 31].

Children, daughters and young girls are also leading roles on some of these games. In Whispering Willows, developed by the two-man studio Night Light Interactive, the main character is Elena Elkhorn who is on a journey to find her missing father. Labyrinthine Dreams, by Mark Conforti, deals with the theme of death when a young woman, Beth, struggles with her past and a psychological demon. Our Darker Purpose, produced by Avidly Wild Games, another mixed gender team with a woman, Caitlyn Kurilich as lead artist, follows the student Cordy in a procedural world where she faces former colleagues, teachers and the Administrators. Lily Looking Through, developed by yet another couple, Jessica and Steve Hoogendyk, is a children-oriented point and click game where Lily goes on a journey to save her brother a good twist on the damsel in distress trope. Dysfunctional Systems, by Dischan Media, is a visual novel about the story of the student mediator Winter Harrison. Sent to chaotic worlds in order to solve their problems, mediators have a crucial role in the game story. The game has also another woman on a secondary leading role/antagonist. Dystopia, developed by Owlchemy Labs, the last game of the data, is another point and click adventure where you control Rita, a barista that got involved in a plane crash. She, along with other survivors, had to find a way to survive until help arrive. As a leading role, her choices determine the fate of the others and herself.

If the first wave of gender studies has as characteristic the proposal of differences between girl and boy play, and advocates for games that are design oriented to girls, known as "pink games" [23], it is interesting to note that the pattern did not evolve as predicted by authors in the famous book From Barbie to Mortal Kombat by Justine Cassel and Henry Jenkins [3]. Indeed, what the second wave of gender studies proposes [23] is a design that includes everyone and there is no such thing as boys' game and girls' game [27,12]. The brief analysis of these projects demonstrates that, despite having female leads, they are not oriented towards a gender specific audience, but to gamers in general. There is also a difference in content, or in how the content appears, in relation to the major games. These games demonstrate that other stories and modes of play can be explored simply by changing the protagonist from the traditional whitemale action hero to a variety of female characters. Representation of women is apparently better, with a variety of backgrounds, a variety of game mechanics and motivations. In terms of character design, hypersexualization is not an issue. Although this research is limited to what developers wrote on both Kickstarter and Steam pages in order to sell the game for a new backer and/or player, it is safe to assume that these female protagonists are strong,

independent woman, with well-developed personalities and a step ahead regarding women representation in videogames.

4 Conclusion

If we expect independent games to engage with political matters (in the case of this paper, by advocating for better representation of gender and sexuality), it is true that the concerns raised by Harvey (2015) regarding transmedia projects remain true for crowdfunded projects. It is possible to perceive a freedom of artistic creation, but new constraints arise. When writing the project, creators might think about ways to sell it for the public, therefore leaving aside innovative, challenging or progressive ideas, in both game story and mechanics that might receive negative reaction from the public. New constraints, similar to those already existing in the big industry, arise for independent creators relying on crowdfunding. The control of the backers extends to the campaign phase and post-campaign, as different ideas can either increase or decrease the amount of people interested in the project, and a badly finalized product may hinder future projects and cause the disruption of the company.

Representation in terms of *quantity* of games with female leads is still below expectations. Although slightly better than the figures of major publishers, these 145 games are not as diverse and inclusive as hypothesized. However, the content analysis of the thirteen games with a female lead indicate that independent producers are more likely to do a better portray of minorities, or at least one that does not incur on the common tropes and issues of games industry regarding gender. This research is small in scope and I believe that these projects are a very good source for those interested in doing research about games and representation in the indie sector. An in-depth analysis of projects and careful play of the games might show different results regarding representation. It can also bring to light the intricacies of the relationships between backers and project creators, as Smith [26] study did.

To the hypothesis proposed here, I believe that crowdfunded and greenlighted games on one hand still follow the standards of the industry in how to deal with diversity and progressive thought⁵. On the other hand, there are hints of a different and inclusive approach regarding the female lead games that may also be present in other mixed gender games or even male lead games.

REFERÊNCIAS

- [1] A. Anthropy. Rise of the video game zinesters: how freaks, normal, amateurs, artists, dreamers, drop-outs, queers, housewives and people like you are taking back an art form. New York: Seven Stories Press, 2012
- [2] Y. Benkler The penguin and the Leviathan. New York: Crown Business. 2011
- [3] J. Cassel and H. Jenkins. From Barbie to Mortal Kombat. Cambridge, Mass.: MIT Pres, 1998
- [4] R. Connel Gender and power: Society, the person and Sexual Politics. 1st ed. Cambridge: Polity, 1987.
- [5] Entertainment Software Association. Essential facts about the computer and video game industry. ESA report. 2015
- [6] H. Fisher. Sexy, Dangerous--and Ignored: An In-depth Review of the Representation of Women in Select Video game Magazines. *Games And Culture*, 10(6), 551-570, 2015

Description retrieved from the Steam page of the game: http://store.steampowered.com/app/290770

⁵ Harvey (2015:180) argues that independent transmedia projects, free from the constraints of an IP or owner, can often approach themes that otherwise would be impossible.

- [7] R. Gallagher. No Sex Please, We Are Finite State Machines: On the Melancholy Sexlessness of the Video Game. *Games And Culture*, 7(6), 399-418.2012
- [8] C. Harvey Fantastic Transmedia: narrative, play and memory across science fiction and fantasy story worlds. London: Palgrave Macmillan, 2015
- [9] b. hooks. We real cool: Black Men and Masculinity. 1st ed. New York: Routledge, 2004
- [10] J. Ivory Still a Man's Game: Gender Representation in Online Reviews of Video Games. Mass Communication And Society, 9(1), 103-114, 2006
- [11] H. Jenkins, S. Ford and J. Green. Spreadable media. New York: New York University Press, 2013
- [12] J. Jenson and S. Castell Gender, Simulation, and Gaming: Research Review and Redirections. Simulation & Gaming, 41(1), 51-71, 2010
- [13] R. Johnson Toward Greater Production Diversity: Examining Social Boundaries at a Video Game Studio. Games and Culture, 2013
- [14] Y. Kafai, M. Cook and D. Fields. "Blacks Deserve Bodies Too!": Design and Discussion About Diversity and Race in a Tween Virtual World. Games and Culture, 5(1), 43-63, 2009
- [15] A. Kerr. The business and culture of digital games. London: SAGE, 2006
- [16] S. Kline, N. Dyer-Witheford, G. De Peuter *Digital play*. Montreal: McGill-Queen's University Press, 2003
- [17] C. Kocurek. Coin-operated Americans: rebooting boyhood at the video game arcade. 1st edition. Minneapolis - London: University of Minnesota Press, 2015.
- [18] D. Leonard Not a Hater, Just Keepin' It Real: The Importance of Race- and Gender-Based Game Studies. Games And Culture, 1(1), 83-88, 2006
- [19] L. Lima. Produzir, consumir, colaborar: experiencias singulares na pratica de crowdfunding (MPhil). Universidade Federal de Minas Gerais. 2014
- [20] L. Lima and M.S. Henriques. Os públicos fazem o espetáculo: protagonismo nas práticas de financiamento coletivo através da internet. Conexão: Comunicação e Cultura. V. 13 n.25. pp. 55-75, 2014
- [21] C. Martin and M. Deuze. The Independent Production of Culture: A Digital Games Case Study. Games And Culture, 4(3), 276-295, 2009
- [22] N. Martins, D. Williams, K. Harrison and R. Ratan A Content Analysis of Female Body Imagery in Video Games. Sex Roles, 61(11-12), 824-836 (2009)
- [23] G. Richards. Gender and Gameplay: Research and Future Directions. In B. Bigl & S. Stoppe (eds.), *Playing with Virtuality: Theories and Methods of Computer Game Studies* (pp. 269–284). Frankfurt: Peter Lang Academic, 2013
- [24] A. Shaw Gaming at the edge: sexuality and gender at the margins of gamer culture. Minneapollis: University of Minnesota Press, 2014
- [25] A. Shaw Putting the Gay in Games: Cultural Production and GLBT Content in Video Games. Games and Culture. [Online] 4 (3), 228-253, 2009
- [26] A. Smith The backer-developer connection: Exploring crowdfunding's influence on video game production. New Media & Society, 17(2), 198-214, 2014
- [27] T.L. Taylor Multiple Pleasures: Women and Online Gaming. Convergence: The International Journal Of Research Into New Media Technologies, 9(1), 21-46, 2003#
- [28] H. Thornham "It's A Boy Thing". Feminist Media Studies. [Online] 8 (2), 127-142., 2008
- [29] J. Wajcman Feminism confronts technology. University Park, Pa.: Pennsylvania State University Pres, 1991.
- [30] J. Weststar and M. Andrei-Gedja. Developer Satisfaction Survey 2014: Industry Trends and Future Outlook Report (pp. 1-22). International Game Developers Association. Retrieved from http://c.ymcdn.com/sites/www.igda.org/resource/collection/CB31CE

- 86-F8EE-4AE3-B46A-148490336605/IGDA_DSS_2014-Industry_Trend.pdf, 2015
- [31] D. Williams, N, Martins, M. Consalvo and J. Ivory. The virtual census: representations of gender, race and age in video games. *New Media & Society*, 11(5), 815-834. 2009