

# What Are the Challenges Faced by Women in the Games Industry?

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**Abstract.** *Despite the growing female interest in gaming, women still represent an alarmingly low percentage of game producers. Thus, a Systematic Literature Review has been carried out to understand what challenges women face within the games industry and what approaches have been made to promote more gender-aware companies. The studies encountered show that gender stereotypes are still highly present in video game companies, affecting the entry and permanence of women in the field. Nevertheless, approaches have been discussed that involve hiring more women, inducing them into leadership positions, and adopting gender-sensitive communication strategies. The results can help future researchers understand which approaches work and which do not.*

**Resumo.** *Apesar do crescente interesse feminino em jogos, as mulheres ainda representam uma porcentagem muito baixa das pessoas produtoras de jogos. Este trabalho realiza uma Revisão Sistemática da Literatura, com o objetivo de entender quais desafios as mulheres encontram na indústria de jogos, e quais propostas têm sido feitas para promover empresas mais inclusivas. Os artigos encontrados mostram que os estereótipos de gênero ainda são muito presentes, afetando a entrada e permanência de mulheres na área. Entretanto, têm-se discutido abordagens que envolvem, além da contratação de mais mulheres, colocá-las em posição de liderança e adotar estratégias de comunicação sensíveis a gênero. Os resultados podem contribuir para guiar futuras pesquisas sobre quais abordagens realmente funcionam ou não.*

## 1. Introduction

The games industry has rapidly grown in recent years, faster than any other entertainment sector such as TV, music, movies, and book publishing, having both male and female players in all age groups. This growth was accentuated as a result of COVID-19's lockdown measures in the year 2020 [Şener et al. 2021], in which the video game industry was valued globally at 159.3 billion US dollars, representing a +9.3% growth compared to the previous year, with the number of players around the globe calculated at 2.7 billion. Furthermore, the expectation is that this growth will remain rising even more during the coming years, with the global game revenue forecast for the following years reaching 200.8 billion by the end of 2023 [Newzoo 2020].

All numbers show that this market is constantly ascending and does not show signs of slowing down anytime soon. Within this context, females represent a significant number of gamers, approximately 45% of players [ESA 2021]. And the tendency is that these

numbers will grow in the future, as female interest in games has only increased in recent years, as portrayed by some female leaders working in the industry [Infomoney 2021]. This trend corroborates that the paradigms and beliefs about games being an exclusively male leisure activity are disappearing, and women also want to be part of gamer culture.

However, despite the growing interest in gaming by women, they represent only 30% of workers in the games industry [IGDA 2021], which demonstrates a striking gender inequality still present within this field. This disparity can perhaps be explained by the fact that gamer culture is very male-oriented [DYMEK 2012], causing the games industry itself to be considered masculine, and as such, marginalize female contributions [Agapiou 2002] since women are regarded as intruders in the “boys’ club”. This view that creating games is a male profession fuel a paternalistic corporate culture [Clerc and Kels 2013], in which discourses of masculinity in the sector create and reproduce a culture that excludes female employees [Johnson 2013]. Besides, considering that most games are made by and for men, it becomes easier for them to adopt and maintain their identity as gamers [Deuze et al. 2007], being more likely to become game developers, perpetuating this male-centered cycle of production and consumption.

Therefore, it is essential to investigate the main factors within the industry that are obstacles for women, and how to solve them to achieve more gender-aware game companies. In this sense, [Fontoura et al. 2018] aimed to make an initial mapping of studies concerning women in the games industry and superficially discussed the lack of works in the area and the barriers found so far. However, there was no in-depth exploration of which approaches have been proposed to deal with gender issues.

Hence, to provide depth to this topic, the main objective of this study is to perform a Systematic Literature Review of the works within the last five years that discuss what challenges are still faced by women in the games industry, what are the main approaches for addressing gender issues and what obstacles these approaches still experience when being implemented. In terms of methodology, the purpose is to identify, select, analyze, and summarize relevant papers about women’s careers in the games industry to show an overview of the topic to answer the research questions.

This work is organized as follows: we detail the methodology in Section 2; results, including quantitative analysis and qualitative discussion, are presented in Section 3; and finally, the conclusion and future works in Section 4.

## **2. Methodology Description**

This research followed the Evidence-Based Software Engineering (EBSE) paradigm, presented by [Kitchenham et al. 2004], which encourages finding evidence through literature review to answer research questions of academic works. We conducted a Systematic Literature Review (SLR) following the guidelines proposed by [Kitchenham and Charters 2007], which consists of a set of activities divided into three main phases: (i) Planning, (ii) Conducting, and (iii) Reporting the results. The main objectives of an SLR are to identify, analyze, extract and synthesize data on relevant primary studies in a given area.

### **2.1. Research Questions**

The following Research Questions (RQ) were enunciated:

- **RQ01.** What are the main challenges faced by women within the games industry?
- **RQ02.** What impacts can be observed by the lack of women working in the games industry?
- **RQ03.** What approaches address gender issues in the games industry?
- **RQ04.** What are the difficulties in defining approaches within this context?

Based on the research questions, the PICOC criteria (P - Population, I - Intervention, C - Comparison, O - Outcomes, and C - Context), proposed by [Petticrew and Roberts 2008], were structured as follows:

- **Population:** Women
- **Intervention:** Challenges
- **Comparison:** The goal of this paper is not to compare, but to characterize studies
- **Outcomes:** General
- **Context:** Games Industry

## 2.2. Search Method

For the review protocol to be rigorous and auditable [Budgen et al. 2008], it is essential to systematically describe the steps taken in the search strategy. Thus, the search method to be used in the review will be presented here.

### 2.2.1. Search String

To define the search string, the terms defined in the PICOC criteria and their synonyms were used as a starting point. Then, a generic search string is structured, according to Table 1, to be adapted to each search engine. The search scope will be limited to Title, Abstract, and Keywords (Title-Abs-Key).

**Table 1. Search string**

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("Female" OR "Female Inclusion" OR "Representativeness of Women" OR "Women" OR "Women Inclusion" OR "Women Inclusive") AND ("Games Industry" OR "Computer Games Industry" OR "Game Company" OR "Video Game Creation")

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### 2.2.2. Data Sources

For this work, the chosen search engines were ACM Digital Library<sup>1</sup>, IEEE Xplore<sup>2</sup>, SBC Open Lib<sup>3</sup>, Science Direct<sup>4</sup>, Scopus<sup>5</sup>, and Web of Science<sup>6</sup>, considering certain quality-related criteria such as relevance in the computer field, publishing regularity, ease of use, filter variety and full text of papers available for members of the academia [Buchinger et al. 2014].

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<sup>1</sup><http://portal.acm.org>

<sup>2</sup><https://ieeexplore.ieee.org/>

<sup>3</sup><https://sol.sbc.org.br/busca/>

<sup>4</sup><http://www.sciencedirect.com>

<sup>5</sup><http://www.scopus.com>

<sup>6</sup><https://clarivate.com/webofsciencegroup/solutions/web-of-science/>

### 2.2.3. Search Strategy

The search strategy is how studies are searched to cover as much of the available literature as possible. The solution adopted for this work is based on the concept of quasi-gold standard [Zhang et al. 2011], where a manual search is performed to define a set of relevant studies (quasi-gold studies), followed by an automated search (database search) on the search engines. Automated search results are compared with manual search results to calculate the percentage of relevant studies returned (quasi-sensitivity). The search string will be refined and applied again for this work until a quasi-sensitivity greater than or equal to 80% is achieved. The quasi-gold studies defined for this research are shown in Table 2:

**Table 2. Quasi-gold studies**

Authors	Title
[Bailey et al. 2021]	Gender Composition of Teams and Studios in Video Game Development
[de Castell and Skardzius 2019]	Speaking in Public: What Women Say about Working in the Video Game Industry
[Gidley 2019]	The Game Engine: The Role of Technical and Creative Women in Video Game Development
[Ahmadi et al. 2020b]	Feminist Living Labs as Research Infrastructures for HCI: The Case of a Video Game Company
[Harvey 2021]	Making the grade: Feminine lack, inclusion, and coping strategies in digital games higher education
[Lima et al. 2021]	Never Imagined i Would Work in the Digital Game Industry'

### 2.3. Selection Criteria

After analyzing the sources, filtering, and removing duplicate studies, selection criteria are applied to classify the suitability of each study concerning the research questions. A study is considered relevant and accepted if it meets the inclusion criteria and does not meet any exclusion criteria. Initially, after the search result, all studies will be identified as **Unclassified**. Then, according to the inclusion or exclusion criteria, each paper will be classified as **Accepted** or **Rejected**.

#### 2.3.1. Inclusion Criteria

Inclusion criteria classify studies considered relevant to answer the research questions. The following inclusion criteria (IC) were identified:

- **IC01.** The study is about gender issues within the gaming industry
- **IC02.** The study was published in *Journal* or Conference
- **IC03.** The type of the document is article or conference paper
- **IC04.** The study was published in Portuguese or English
- **IC05.** Publication year must be greater than 2017

#### 2.3.2. Exclusion Criteria

Exclusion criteria are used to rule out studies that are not relevant to the research objectives. The following exclusion criteria (EC) were identified:

- **EC01.** The study is secondary or tertiary

- **EC02.** The study is gray literature
- **EC03.** The study is a technical report
- **EC04.** The study is an editorial, tutorial, preface, lecture, or summary of a conference or workshop
- **EC05.** The study does not contain an abstract or full version available
- **EC06.** The study is an earlier summary version of a complete study
- **EC07.** The study is not related to the games industry
- **EC08.** The study does not discuss any gender issues in women's careers

## **2.4. Quality Assessment**

Studies accepted after applying the selection criteria will also be evaluated using the quality criteria [Kitchenham and Charters 2007], presented below, in which the answers will be scored with 1.0 (Yes) or 0.0 (No), resulting in the study quality assessment score.

- **QA01.** Are the goals of the study clearly stated?
- **QA02.** Is there an adequate description of the context in which the research was carried out?
- **QA03.** Was the research method appropriate to address the aims of the research?
- **QA04.** Are the research's findings clearly defined?
- **QA05.** Are the results achieved relevant to the progress of the field?

## **2.5. Data Extraction and Synthesis**

The extracted data from the accepted papers will be analyzed qualitatively, where they will be summarized in a descriptive way to answer the research questions. In addition, some general data, shown below, will also be extracted to be synthesized in a quantitative manner, through graphs and tables, to assemble an overview of the studies.

- Title
- Authors
- Publication Year
- Publication Type
- Name of Conference or Journal
- Source (database)

## **3. Results and Discussions**

Presented in this section are the results of the conduction phase, which was performed according to the defined protocol. Before the selection process, the search string was refined. For this, the generic search string was adapted (according to each search engine) and applied to the Title, Abstract, and Keywords. Then, the string was refined (see Table 3) until a quasi-sensitivity of 85.7% was reached. The total amount of results returned was 149, distributed among the bases as shown below:

- ACM Digital Library: 59 results
- IEEE Xplore: 7 results
- SBC Open Lib: 9 results
- Science@Direct: 1 result
- Scopus: 44 results
- Web of Science: 29 results

**Table 3. Refined search strings**

Database	Search string
ACM Digital Library	((“Female”) OR (“Female Inclusion”) OR (“Representativeness of Women”) OR (“Women”) OR (“Women Inclusion”) OR (“Women Inclusive”)) AND (“Games Industry”) OR (“Computer Games Industry”) OR (“Game Company”) OR (“Video Game Creation”))
IEEE Xplore	((“Female” OR “Women” OR “Woman” OR “Girls” OR “Feminist”) AND (“Games Industry” OR “Game Industry” OR “Game Creation” OR “Games Creation” OR “Game Company”))
SBC Open Lib	((meninas) OR (mulheres) OR (feminina) AND ((programação de jogos) OR (desenvolvimento de jogos) OR (criação de jogos))
Science@Direct	((“Female” OR “Women” OR “Woman” OR “Feminist”) AND (“Games Industry” OR “Game Industry” OR “Game Company” OR “Game Creation”))
Scopus	TITLE-ABS-KEY((“Female” OR “Female Inclusion” OR “representativeness off women” OR “Women” OR “Woman” OR “Girls” OR “Women Inclusion” OR “Women Inclusive” OR “Feminist”) AND (“Games Industry” OR “Game Industry” OR “Game Company” OR “Game Creation”)) AND (LIMIT-TO (DOCTYPE, “ar”) OR LIMIT-TO (DOCTYPE, “cp”)) AND (LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018)) AND (LIMIT-TO (LANGUAGE, “English”))
Web of Science	((“Female” OR “Female Inclusion” OR “Representativeness of Women” OR “Women” OR “Woman” OR “Girls” OR “Women Inclusion” OR “Women Inclusive” OR “Feminist”) AND (“Games Industry” OR “Game Industry” OR “Game Company” OR “Game Creation”))

### 3.1. Selection of Studies

In the first step of selection, the refined search string conducted in the data sources returned 149 results which, after removing duplicates, left 108 unique papers for analysis. Then, the selection criteria were applied in two reading stages: (i) title, abstract, and keywords; and (ii) introduction and conclusion. In this second selection, 10 papers were selected for a full reading, according to Table 4. The final papers were considered relevant to properly answer the initially defined research questions.

**Table 4. Selected papers**

Authors	StudyID - Title
[Styhre et al. 2018]	S01 - Masculine domination and gender subtexts: The role of female professionals in the renewal of the Swedish video game industry
[Castanho et al. 2018]	S02 - Mulheres e jogos eletrônicos: muitas jogadoras, poucas programadoras!
[Ochsner 2019]	S03 - Reasons Why: Examining the Experience of Women in Games 140 Characters at a Time
[Ahmadi et al. 2019]	S04 - Hacking masculine cultures – Career ambitions of female young professionals in a video game company
[de Castell and Skardzius 2019]	S05 - Speaking in Public: What Women Say about Working in the Video Game Industry
[Ahmadi et al. 2020b]	S06 - Feminist Living Labs as Research Infrastructures for HCI: The Case of a Video Game Company
[Ahmadi et al. 2020a]	S07 - “We Want to Push the Industry via Communication”... Designing Communication Measures to Foster Gender Diversity in a Video Game Company
[Lima et al. 2021]	S08 - Never Imagined i Would Work in the Digital Game Industry’
[Harvey 2021]	S09 - Making the grade: Feminine lack, inclusion, and coping strategies in digital games higher education
[Bailey et al. 2021]	S10 - Gender Composition of Teams and Studios in Video Game Development

### 3.2. Study Quality Assessment

The selected studies were evaluated following the quality assessment checklist defined in the protocol. The objective was to provide an overview of the quality of the papers without excluding them. Overall, the quality of the selected papers was considered good (see Figure 1), thus giving greater credibility and relevance to the goals of the SLR.

### 3.3. Data Extraction and Synthesis

Although the ACM Digital Library brought more results, as shown in Section 3, the data extraction shows that the digital library with the most accepted papers was Scopus, as seen in Figure 2, proving its relevance in terms of academic works in the field.

The distribution of papers by country is also shown in Figure 3, in which it is possible to observe that most of the analyzed studies are from Europe.

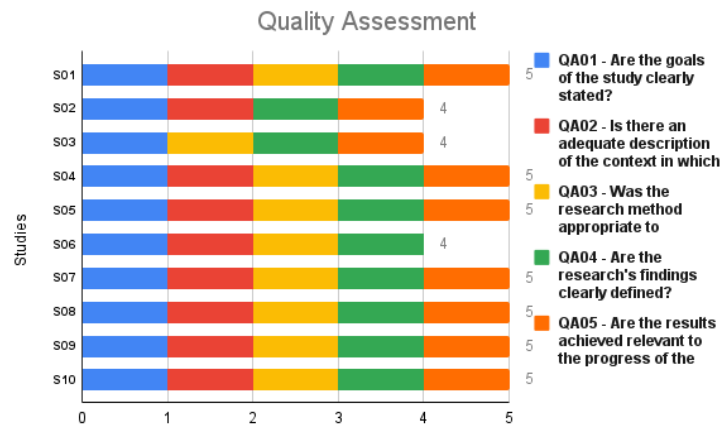


Figure 1. Quality assessment

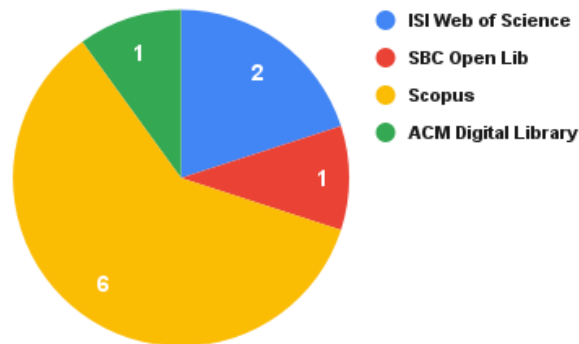


Figure 2. Accepted papers by digital library

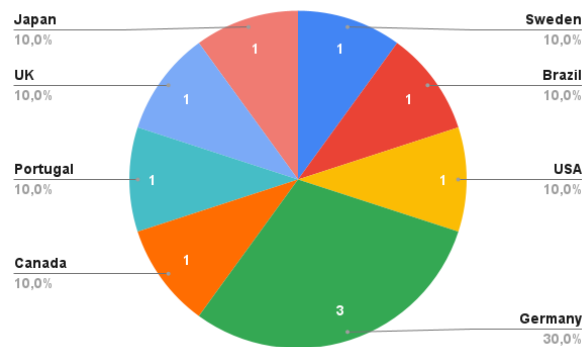


Figure 3. Papers by country

### 3.4. Addressing the Research Questions

This section presents the answers to the research questions found in the selected studies. Although this review only looked at academic papers, those reflect research made with actual companies in the games industry. Thus, the results contemplate the experience of many women inserted in the field. Finally, it is natural that there is a correlation between each research question and its answers since the identified challenges for women to fit into the area create collateral effects, revealed in the impacts presented later.

***RQ01. What are the main challenges faced by women within the games industry?***

Among the challenges women face within the video game industry, the work of [Styhre et al. 2018] in a Swedish video game company points to the existence of a traditionally **male gamer culture** intertwined with the company's corporate culture. This culture affects both entry and permanence of women within the industry, as many feel they are on a 'test' to fit into a masculine identity culture, while others have a constant **sense of not belonging** to these environments.

A study by [Castanho et al. 2018] with women working in the Brazilian video game industry showed that, in general, they **feel as if their potential is limited** in the field. In addition, many female developers feel treated differently from men, **needing to prove their competence**, being **stereotyped** that they work in artistic roles just because they are women, and dealing with issues of **harassment**.

The analysis of the discussion raised by the hashtag #1ReasonWhy on Twitter, to answer "Why are there so few lady game creators?", by [Ochsner 2019], reinforces all the questions above, where women express that they feel the **need to work hard to be recognized** as professionals in the video game industry. In classrooms, their competence regarding the content is questioned. At events, their role as a professional is challenged. In job interviews, their ability to fit into the office environment is questioned. Not to mention the countless **situations of harassment** in the work environment, in which women end up **being silenced**.

Even companies with a more receptive environment for women, like the German game company that participated in the Living Lab, mentioned in [Ahmadi et al. 2019], still face subtle notions of masculinity. In a scenario like this, **women take time to fit in**, always **feel measured against something intangible**, do not feel confident in their ability to express (and impose) opinions, and feel guilty or selfish when they focus on fostering their career ambitions.

These feminine efforts to fit into exclusionary environments are explored in the work of [Harvey 2021], which highlights the sacrifices necessary to work in predominantly male cultures. The options often lie between accepting and **normalizing microaggressions** and toxic experiences, possibly trying to **renounce the feminine aspects of their identity** to align with masculine interests, or distance themselves and even revoke their right to pursue the desired career due to the sacrifices they are not willing to make.

***RQ02. What impacts can be observed by the lack of women working in the game industry?***

As a consequence of the lack of female representation in the games industry, one of the female interviewees in the work of [Styhre et al. 2018], which owns a game development company, firmly believes that **male predominance in game development determines what types of games will be produced**.

Another important point when observing the work of [Castanho et al. 2018] is that although gamer girls are also interested in working with games, the perception that this is a predominantly male, sexist, and bigoted environment, which underestimates, discredits, and harasses women, makes them **believe that being a woman would hinder a career**



**in this field.**

This trend is also observed in the work of [Lima et al. 2021], which shows how gender stereotypes affect the career choices of Portuguese students, where a career in games is usually encouraged for boys from childhood, while for girls, it is considered inappropriate.

Many women decide to face these stereotypes and pursue careers in games, despite having minimal agency, due to the issues of harassment and female silencing that are still very common [Ochsner 2019]. This leads them to **withdraw from participation in industry events or online communities due to everyday sexism**, hide their gender in games, and refuse to talk about negative work experiences for fear of losing their jobs (as also discussed in [de Castell and Skardzius 2019]).

All these issues generate **insecurity among women within the industry**, as seen in the work of [Ahmadi et al. 2019], in which **impostor syndrome is frequent**, making women not feel confident enough to stand up for themselves, and thus, masculine values dominate the game design process. Some even **give up working in technical roles** in the area, opting for roles like education in games [Harvey 2021], due to the sacrifices involved in working with game development, such as salary differences and lack of maternity leave.

This wage inequality is especially explored in the study by [Bailey et al. 2021], attributing this issue to the fact that there is a **greater concentration of women in less-paid roles**, such as art and animation, and little female representation in engineering roles and leadership positions. The author also discusses that **it is difficult to prevent the work environment from being toxic with few women in development teams**. Similarly, with few women in executive roles, women's influence over game development decisions or recruiting practices is almost non-existent, reinforcing the unfavorable circumstances for including more women in the industry.

### ***RQ03. What approaches address gender issues in the games industry?***

Regarding the approaches presented to address gender issues, a gender relations consultant interviewed in [Styhre et al. 2018] argues the need for education, training, self-reflexivity, recruiting more women, and inducing them to top management teams and boards of directors.

A productive direction discussed in the work of [Ochsner 2019] points out that in addition to hiring more women, it is necessary to **help them identify themselves as professionals and be recognized as such by their colleagues** and offer career growth opportunities through mentoring and informal networking.

The suggestion of **providing mentors** is also mentioned in [Ahmadi et al. 2019], along with the idea that companies need to **value skills and perspectives beyond heteronormative ones**, and place women in leadership positions to fulfill as female role models for other women. The author also emphasizes in another work [Ahmadi et al. 2020a] the **importance of this female role model**, both in the internal company environment and to create gender-sensitive external communication. In the external communication, it is important to avoid intertwining gamer culture with corporate culture to not reinforce an identity loaded with negative stereotypes, and to **align Employer Branding with the gender-aware values** that the company intends to communi-

cate.

#### ***RQ04. What are the difficulties in defining approaches within this context?***

Despite the various propositions to deal with gender issues, it is still difficult to define approaches in this context since, as presented in the work of [Ahmadi et al. 2020a], the external aspects of Employer Branding are just as important as what is internally perceived by the employees.

An example of this is companies that show themselves as being creative and innovative but still **fail at ceasing the exclusion of women** who have a genuine interest in working with games, as shown in [Styhre et al. 2018]. The author points out that without a commitment to gender equality and an awareness of the impacts of social norms and beliefs, it is not possible to fully explore the potential of this market. Especially when considering that there are **numerous sacrifices for women working in games**, which makes a career in this field dependent on their degree of resilience [Harvey 2021].

To understand the extent of these sacrifices, it is essential to **identify the silences that persist**, the rhetorical strategies that suppress female discourses, and what these have to say about working in the games industry [de Castell and Skardzius 2019].

## **4. Conclusion**

In this work, an SLR of the last five years was carried out to understand what challenges women still face in the video game industry. The methodology described how the studies were selected and evaluated, plus how the data were analyzed to answer the research questions. Of the 108 papers analyzed (after removing duplicates), only 10 met all selection criteria, proving their relevance to discussions in the area.

The selected papers demonstrated that gender stereotypes are still very present in video game companies, which usually have values tied to a male gamer culture that strongly segregates women in the sector, who end up forced to develop coping strategies or quit working in the field. Due to the entailed gender sacrifices of working in the games industry, many women, although curious about creating games, turn out not to consider a career in this field, further increasing the gender discrepancy.

Among the approaches discussed to solve these issues, it is important to emphasize those that propose opportunities for women to develop themselves and reach positions of leadership and influence, in order to inspire other women. In addition, it is also indispensable for companies to enable women to express themselves, not only by talking about gender issues but also by showing agency on projects and demonstrating their expertise.

For future works, it may be interesting to analyze whether there are truthfully gender-aware companies in the games industry and which strategies they adopt to circumvent gender issues, to be possible to replicate them in other companies in the industry. Another potential work is to identify if it is reasonable to apply these strategies to other areas in Computer Science, or broader sectors, in which women face the same challenges.

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## References

- Agapiou, A. (2002). Perceptions of gender roles and attitudes toward work among male and female operatives in the scottish construction industry. *Construction Management & Economics*, 20(8):697–705.
- Ahmadi, M., Eilert, R., Weibert, A., Wulf, V., and Marsden, N. (2019). Hacking masculine cultures-career ambitions of female young professionals in a video game company. In *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, pages 413–426.
- Ahmadi, M., Eilert, R., Weibert, A., Wulf, V., and Marsden, N. (2020a). ” we want to push the industry via communication”... designing communication measures to foster gender diversity in a video game company. *Proceedings of the ACM on Human-Computer Interaction*, 4(GROUP):1–26.
- Ahmadi, M., Eilert, R., Weibert, A., Wulf, V., and Marsden, N. (2020b). Feminist living labs as research infrastructures for hci: The case of a video game company. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, pages 1–15.
- Bailey, E. N., Miyata, K., and Yoshida, T. (2021). Gender composition of teams and studios in video game development. *Games and Culture*, 16(1):42–64.
- Buchinger, D., de Siqueira Cavalcanti, G. A., and da Silva Hounsell, M. (2014). Mecanismos de busca acadêmica: uma análise quantitativa. *Revista Brasileira de Computação Aplicada*, 6(1):108–120.
- Budgen, D., Turner, M., Brereton, P., and Kitchenham, B. A. (2008). Using mapping studies in software engineering. In *Ppig*, volume 8, pages 195–204.
- Castanho, C. D., Wang, A., and Santana, I. (2018). Mulheres e jogos eletrônicos: muitas jogadoras, poucas programadoras! In *Anais do XII Women in Information Technology*. SBC.
- Clerc, I. and Kels, P. (2013). Coping with career boundaries in masculine professions: Career politics of female professionals in the ict and energy supplier industries in switzerland. *Gender, Work & Organization*, 20(2):197–210.
- de Castell, S. and Skardzius, K. (2019). Speaking in public: What women say about working in the video game industry. *Television & New Media*, 20(8):836–847.
- Deuze, M., Martin, C. B., and Allen, C. (2007). The professional identity of gameworkers. *Convergence*, 13(4):335–353.
- DYMEK, M. (2012). Video games: A subcultural industry: Mikolaj dymek. In *The Video Game Industry*, pages 43–65. Routledge.
- ESA, E. S. A. (2021). Essential facts about the computer and video game industry. Available: <https://www.theesa.com/wp-content/uploads/2021/08/2021-Essential-Facts-About-the-Video-Game-Industry-1.pdf>. Accessed: 2022-05-19.
- Fontoura, M., de Oliveira, L., and Amaral, M. A. (2018). Mulheres e desenvolvimento de jogos: essa conjunção já existe? In *Anais do XII Women in Information Technology*, Porto Alegre, RS, Brasil. SBC.

- Gidley, D. (2019). The game engine: The role of technical and creative women in video game development. In *Gender, Social Justice and Innovation Conference*.
- Harvey, A. (2021). Making the grade: Feminine lack, inclusion, and coping strategies in digital games higher education. *New Media & Society*, page 1461444820986831.
- IGDA (2021). Developer satisfaction survey 2021. Available: [https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2021/07/31184838/IGDA-DSS-2021-COVID-Report\\_July-18-2021-1.pdf](https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2021/07/31184838/IGDA-DSS-2021-COVID-Report_July-18-2021-1.pdf). Accessed: 2022-05-19.
- Infomoney (2021). Donas do jogo: as brasileiras que estão transformando a indústria de games no país. Available: <https://www.infomoney.com.br/do-zero-ao-topo/donas-do-jogo-as-brasileiras-que-estao-transformando-a-industria-de-games-no-pais/>. Accessed: 2022-05-19.
- Johnson, R. S. (2013). Toward greater production diversity: Examining social boundaries at a video game studio. *Games and Culture*, 8(3):136–160.
- Kitchenham, B. and Charters, S. (2007). Guidelines for performing systematic literature reviews in software engineering. Technical Report EBSE 2007-001, Keele University and Durham University Joint Report.
- Kitchenham, B. A., Dyba, T., and Jorgensen, M. (2004). Evidence-based software engineering. In *Proceedings. 26th International Conference on Software Engineering*, pages 273–281. IEEE.
- Lima, L., Gouveia, P., Cardoso, P., and Pinto, C. (2021). Never imagined i would work in the digital game industry. In *2021 IEEE Conference on Games (CoG)*, pages 1–7. IEEE.
- Newzoo (2020). Global games market report. Available: [https://resources.newzoo.com/hubfs/Reports/2020\\_Free\\_Global\\_Games\\_Market\\_Report.pdf](https://resources.newzoo.com/hubfs/Reports/2020_Free_Global_Games_Market_Report.pdf). Accessed: 2022-03-31.
- Ochsner, A. (2019). Reasons why: Examining the experience of women in games 140 characters at a time. *Games and Culture*, 14(5):523–542.
- Petticrew, M. and Roberts, H. (2008). *Systematic reviews in the social sciences: A practical guide*. John Wiley & Sons.
- Şener, D., Yalçın, T., and Gulseven, O. (2021). The impact of covid-19 on the video game industry. Available at SSRN 3766147.
- Styhre, A., Remneland-Wikhamn, B., Szczepanska, A.-M., and Ljungberg, J. (2018). Masculine domination and gender subtexts: The role of female professionals in the renewal of the swedish video game industry. *Culture and Organization*, 24(3):244–261.
- Zhang, H., Babar, M. A., and Tell, P. (2011). Identifying relevant studies in software engineering. *Information and Software Technology*, 53(6):625–637.