

# Situating Platform-Based Precarity: Platformization and the (Dis)embedding of the Dutch Game Industry (1980–2022)

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## **Abstract**

*Digital platforms exacerbate informal and unstable working conditions in the game industry. However, more research is needed on how working conditions on platforms are shaped by specific local contexts. Based on a national case study of the Netherlands, this article studies the embeddedness of game developers in national business networks and how these networks have influenced and are influenced by precarious conditions in digital platform markets. Using thirty-two interviews, industry reports, and news articles, the research finds that while developers experience increased competition and financial risk in platform markets, they also mitigate the impact of uncertainty by pursuing strategies to embed themselves more firmly both in transnational business networks with platforms and publishers and in local policy and business networks. The ability of developers to embed themselves in these networks is contingent upon characteristics of the local economy, such as lobbying efforts of developers, policies implemented by decision-makers, and business networks outside of the game industry. The findings indicate that approaches that account for different forms embeddedness can serve as a productive lens for future media industries research on the role of geography, at different scales, in shaping working conditions for cultural producers active on digital platforms.*

**Keywords:** Digital Platforms, Precarity, Embeddedness, Entrepreneurship, Game Industry, The Netherlands

## Introduction

The rise and extension of platforms in creative industries has raised concerns regarding precarious conditions for cultural producers on these platforms.<sup>2</sup> While issues of precarious conditions for cultural producers have long been a topic of interest for media industries scholars, recent research has demonstrated how platforms exacerbate forms of dependence and precarity of cultural producers.<sup>3</sup> For example, in the game industry, platforms offer low barriers to entry which drive heightened competition in the market for games and informalization of game development practices and labor.<sup>4</sup>

The present paper considers the spatial dynamics of platformization and how local contexts shape experiences of precarious and contingent work in the game industry. Existing research points to the central role of platforms in the game industry and the way in which a handful of hardware and digital platform providers generate significant revenues from controlling access to distribution on physical and digital platforms.<sup>5</sup> These digital distribution platforms have lowered barriers for small developers to enter the industry by helping them to access international consumers and have, thus, driven greater geographic dispersion of professional game development. At the same time, the conditions and experiences of developers who depend on these platforms in diverse geographies are less well understood.<sup>6</sup>

This paper addresses this gap with a national case study of platformization in the Dutch game industry. Like in other European countries, digital distribution platforms have driven the entry of a growing number of small development studios and thus growth of a number of previously peripheral national industries.<sup>7</sup> Using original sources, including semi-structured interviews with developers, industry reports and data, and news articles, the paper takes a historical approach to understand the evolution of platform dynamics in the Netherlands and how game developers have responded to increasingly precarious conditions in platform markets. The paper demonstrates how, in the case of the Netherlands, historical trajectories of platformization in the game industry have been conditioned by local business networks and, crucially, how platforms exacerbate forms of precarious and contingent work in these contexts.

The paper borrows the concept of embeddedness from sociology and geography, which refers to the interconnectedness of economic activity with larger social structures, particularly networks and institutions.<sup>8</sup> Using an embeddedness approach, the research finds that digital distribution platforms have fundamentally reconfigured the geography of production in the game industry by disembedding developers from a regional system of distribution, orienting them toward international platform markets. In doing so, game developers lack direct access to business contacts and networks, making them particularly vulnerable to increasing competitive platform conditions and forms of exploitation in platform markets.

At the same time, the trajectory of platformization and continued growth of these developers is also contingent upon local contexts, such as pre-existing networks and business practices, access to publishers and finance, and policy support. These findings suggest that the precarious nature of platformization in the game industry is partially subject to geographical contexts and dynamics and that conditions for gamework vary depending upon local opportunities for professionalization and connectedness to broader industry structures.

## Literature Review: Platforms, Precarity, and Embeddedness in the Game Industry

Media industry studies has seen a growing body of literature which focuses on precarity in the creative work of game developers and game development studios.<sup>9</sup> For media industry scholars, precarious work and precarity are generally defined as “all forms of insecure, contingent flexible work, from illegalized, casualized, temporary employment to homeworking, piecework, and free lancing.”<sup>10</sup> While this research spans different types of game companies and occupational communities within the game industry, it has increasingly focused on development studios as spaces which reflect (1) precarious cultures of gamework, (2) the erosion of labor conditions due to innovation and industrial change, and (3) forced and necessity entrepreneurship in the game industry arising from barriers to other forms of secure employment.<sup>11</sup>

In the book *Platforms and Cultural Production*, Thomas Poell, David Nieborg, and Erin Duffy outline the ways in which platforms produce novel forms of precarity and dependence for producers reliant upon the modular services that platforms provide.<sup>12</sup> Platforms, here, refer to digital infrastructures, which also serve as multi-sided markets through which platform companies govern complementors and users of the platform and reconfigure practices and processes related to labor, creativity, and democracy.<sup>13</sup> For these authors, the game industry is a “prototype” of a platform-dependent industry—as a digital media, games have always necessitated integration with the hardware and software on which they run.<sup>14</sup> Thus, the game industry serves as a particularly fruitful case study in platform-dependence as it allows for comparison between earlier forms of platformization by computer and consumer technology companies, and platformization wrought by big tech companies since the 2000s.

While platform companies have always played a central role in the game industry, the rise of big tech companies has cemented the dominance of platform business models in the game industry. Crucially, as gaming emerged as a professional industry in the 1980s, platforms became “aggressively formalized” by consumer electronic companies.<sup>15</sup> To ensure the quality of the games produced for specific platforms, these companies enforced strict quality regulations and oversight mechanisms. As a result of these formalized processes, and the capital-intensive nature of game production, developers faced high barriers to developing and publishing games for major consoles. The rise of online distribution in the mobile, PC, and console space since the mid-2000s has lowered barriers for many developers to access markets for selling their games. This, in tandem with the availability of third-party game engines, has increased the number of “everyday” game developers who undertake game production in non-professional settings, resulting in a wide range of practices along the spectrum of formal and informal game development.<sup>16</sup>

These informal production practices support the formal industry by training new talent and normalizing poor working conditions. They also normalize an entrepreneurial attitude and the absorption of risk by indie developers.<sup>17</sup> Thus, platforms can contribute to developers’ labor precarity by lowering barriers to entry in the game industry, while also individualizing financial risk and labor. As a result, platform-dependence fosters informal and precarious work while reinforcing the position of platform companies and large, incumbent players in

the game industry. Some authors note that the position of platforms as both market-makers and market beneficiaries is potentially a conflict of interest with negative implications for competition in these spaces.<sup>18</sup>

### *Geography, Spatialization, and Embeddedness in the Game Industry*

Media studies scholars have written about the geographically specific characteristics of both platformization and the game industry. Platform studies scholars note that locally specific forms of regulation and policy can shape platformization and the characteristics of national, regional, or subnational platform industries.<sup>19</sup> In addition, game industry scholarship has seen a surge in work on socio-cultural contexts and industries for game development.<sup>20</sup> However, little research has focused on the dynamics of platformization and how specific local contexts shape processes and outcomes of platformization.

One framework for better integrating geographical perspectives in platform studies and game industry research is the concept of spatialization.<sup>21</sup> Spatialization refers to the social production of space as a relational activity in which space is (re)produced through practices and representation.<sup>22</sup> For these scholars, spatialization refers to space making and interconnectedness on a variety of scales which can result in the uneven geographical spread and media firms and industries.<sup>23</sup> For example, the work of Aphra Kerr on the game industry employs the concept of spatialization to describe the globally connected production networks in which local game industries are embedded. On this topic, she writes that “while globalization processes are often presumed to deterritorialize many economic and cultural activities, we need to also pay attention to how actors embed themselves in particular locations and mobilize spatial affinities”, indicating that research on both the global and local scale is needed to understand conditions for cultural production.<sup>24</sup>

This paper expands upon the impact on platformization on the unique spatial orientation of the game industry by examining how platforms reconfigure social relations at multiple spatial scales. Embeddedness refers to the ways in which entrepreneurs and other economic agents are both “relationally embedded” within complex webs of personal relationships often on a local scale, and “structurally embedded” within business systems and institutional contexts at the regional, national, and transnational scale.<sup>25</sup> These external social contexts of the entrepreneur shape opportunities, for example, by influencing access to resources, networks, market information, and regulatory protection, which can either facilitate or constrain the ability to recognize and exploit business opportunities.<sup>26</sup> These forms of embeddedness are often localized, but can span larger geographical distances if an individual entrepreneur is part of a geographically dispersed community, or if supranational regulation influences opportunities open to the entrepreneur.

This research implements an embeddedness approach by analyzing the impact of platformization on the business and policy networks of Dutch game developers in their national context. In relation to platformization, an embeddedness approach aims to trace the impact of platforms on the social and institutional structures which shape local game development. Using an “interactionist” approach, embeddedness research can also demonstrate how the actions of developers can impact the trajectory of platformization in a specific region.<sup>27</sup> An

embeddedness approach contributes to media studies scholarship by explicitly connecting individual and firm-level perspectives with locally embedded cultures of production.<sup>28</sup>

## Context: The Dutch Game industry

The Dutch game industry, in the vast majority, is composed of small development firms.<sup>29</sup> This present composition of the industry reflects the very small number of domestically founded platform firms and a handful of domestically based publishers in the Netherlands. The Dutch game industry is thus a national case study that is, on the one hand, comparable to other European countries, which also comprise mainly developers, with few major domestically grown platform and publishing business.<sup>30</sup>

Of the 575 companies active in the Dutch game industry in 2018, nearly 75 percent of those companies are game developers. Most of these companies are small; their average number of employees is around seven. Many game developers in the Netherlands are self-employed, 186 studios have zero to one employee, and a majority have fewer than five employees. Most developers are third-party independent developers. Notable exceptions here are triple A developers Guerrilla Games, owned by Sony Interactive Entertainment; Triumph Studios, owned by Paradox Interactive; and a host of other firms that have been acquired during a spate of merger and acquisition activity during the pandemic.

The many small studios in the Netherlands reflect a diversity of different genres, industry segments, and platforms. Most release games for PC (75 percent) and Mac (50 percent), but Dutch studios also commonly develop games for mobile and console, with a small number of studios focused on augmented and virtual reality.<sup>31</sup> Multichannel strategies are common but not ubiquitous. A unique characteristic of the Dutch game industry is the number of applied game developers (114) as compared to 217 entertainment companies. An applied game is a game that is applied to non-entertainment sectors, such as education, training, health, or other contexts. The prevalence of applied game companies is due to several large-scale research projects which aimed to support and stimulate the application of games across non-entertainment sectors.<sup>32</sup>

Literature on the development and history of the Dutch game industry indicates that a lack of proximity to publishers and distributors has made it difficult for start-up game companies to read the entertainment market and produce viable games. The work of David Nieborg and Jeroen De Kloet, published in 2016, for example, identifies a narrative of potential which underlies policy interventions for the game industry by the Dutch government.<sup>33</sup> Yet, despite the creation of policy, the Dutch game industry has not yet reached a stage of maturity, in their understanding, due to the absence of local game distributors and platform companies.<sup>34</sup> They argue that the turn to digital distribution has resulted in a market for games that is “equally, if not more competitive, especially for new entrants, which tend to lack access to capital, industry contacts, and key competencies and skills.”<sup>35</sup> Thus, entrepreneurs face barriers to growth due to a lack of meaningful access to key resources and capabilities in the industry. Furthermore, the lack of access to these resources stems from a lack of connections with large publisher and platform companies.



## Sources and Methods

This paper builds upon previous research on the Dutch game industry by illustrating the impact of business and policy networks on platformization and its geographical implications for the opportunities open to game developers. We take a historical approach to researching platformization and local production cultures, grounded in primary and secondary empirical sources. These sources serve to situate the emergence and extension of platform logics (platformization) and seek to understand how platforms have shaped the opportunities open to Dutch game developers to professionalize their activities. To extend current accounts of the history of the Dutch game industry, the research uses inductive thematic and semantic analysis based on interviews, primary historical sources, and secondary literature.

Primary data was collected through thirty-two semi-structured interviews with game developers and members of the Dutch game industry. Interviewees were selected to represent a broad range of timespans and perspectives in the Netherlands. To get a sense of different time periods in Dutch development history, three groups of developers were identified: those who entered the industry before the 2000s, those who entered between 2000 and up-to and including 2009, and those who entered the industry between 2010 and 2020. Interviews were then conducted with founders and managers of, in total, twelve development studios active within these time periods from across a range of different genres and industry segments. Interviews were then conducted with employees of these studios to gain insight into working conditions and to corroborate the accounts of founders and managers. Additional interviews with marketing professionals, recruiters, policy makers, and members of game industry organizations were also conducted. Their perspectives serve to contextualize the experience of game developers and shed light on industry conditions during the time periods in question.

The interviews are supplemented by a range of original historical sources and secondary literature. These sources are an important means of identifying key moments and events in the Dutch game industry and in the individual histories of the game companies included in the research. They include websites of game developers, industry reports and databases, and news media. In addition to triangulating and confirming the claims made by developers, these sources also contribute to an understanding of platformization in the Dutch game industry. These sources were analyzed using semantic and inductive coding.

## Findings

In this section, we look at how digital distribution platforms impact embeddedness of game developers (1) within the international game industry, (2) in ties to other Dutch game developers, and (3) embeddedness within local institutions and entrepreneurial ecosystem. The findings are organized chronologically to trace these shifting forms of embeddedness in the Dutch game industry before and after the introduction of digital distribution platforms.

*Early Game Industry in the Netherlands (1980–2000s):  
From Locally to Transnationally Embedded Production*

For game developers in the Netherlands, conditions before the advent of digital distribution platforms were already precarious. Over the 1990s and early 2000s, the number of game developers active in the Netherlands increased, supported by the growth of the software industry, regional and local retail distribution networks, and ties to international publishers. At the same time, only a handful of these developers were able to professionalize their activities enough to stably employ staff beyond the founders. These local conditions and barriers to professionalization set the scene for later platformization of the Dutch game industry.

Prior to the introduction of digital distribution platforms in the game industry, the Netherlands had given rise to a handful of studios, a number of which were internationally successful. This early professionalization was supported by local institutions and culture. Early developers, by and large, had their origins in an informal hobby scene. The professionalization of this early scene was galvanized by the growth of the software industry in the Netherlands in the 1980s and 90s, which resulted in consumer demand and retailers for games.

Many early game developers in the Netherlands experienced difficult conditions in the game industry. Over the 1990s, competition in the CD-ROM industry increased dramatically as more game companies began to enter the industry and the volume of games in the market increased. Developers who distributed their games via regional retail distribution networks faced steep competition. This led to a sharp decrease in the price of games in the Netherlands, which made conditions nearly impossible for some developers by the early 2000s.

To compensate for difficult conditions in distributing games locally, some developers worked on building closer relationships with publishers abroad. Developers who turned to the international publishers cite this move as a necessity due to the lack of opportunities in the Netherlands: “[in terms of our] international focus, in the 90s, there was no alternative. There was nothing here, or very little here, in the Netherlands. You had to go abroad.” Developers who managed to land deals with publishers in the early 2000s report that it was difficult to renew these contracts for subsequent projects. In addition, developers faced substantial barriers to developing and distributing games for the physical retail market. In the words of one developer, “back in the day, it was very difficult [to become a developer]. Basically, it was kind of like a chicken-egg story. You needed to have a proven track record that you could make games in order to apply at Nintendo to become a developer. So that was kind of a no go [for us].” This indicates that developers faced nearly impossible conditions in accessing licenses to develop games for consoles and land publishing deals.

In the face of these difficulties, some developers pivoted toward non-entertainment contexts for games, such as serious games and applying games in business-to-business contexts. While developers who moved to serious games cite turning to existing members of their network, “[after] the CD-rom market collapsed in the early 2000s, we then began to provide feedback to museums and cultural institutions [on gamified experiences].” Here, this

developer compensates for a downturn in the market by diversifying their activities and applying game development skills and approaches within cultural institutions. Other developers report applying games to a diverse range of industries, such as advertising, developing games for film and radio stations, education, and health. Both strategic turns represented serious costs as game developers were forced to rebuild their networks with publishers, platforms, or new clients.

For game developers in the Netherlands, conditions before the advent of digital distribution platforms were already precarious. Growth of the software industry, and a rich culture of computer hobbyism, supported the early emergence of industry, a finding echoed in research on other contexts both within and outside of Europe.<sup>37</sup> However, steep competition in the retail market and unstable relations with distributors and publishers meant that many developers struggled to survive. Here, the emergence of the Dutch game industry was shaped by existing business practices, related to software development and distribution and retail of software and games, which shaped the professionalization experienced by early game developers.

*Opportunities in Digital Platform Markets:  
The Turn to Digital Distribution Platforms in the Mid-2000s*

Digital distribution initially lowered barriers to entry for developers excluded from physical retail distribution. In the long run, however, low barriers to entry on digital distribution platforms have created highly competitive conditions for developers, giving rise to visibility issues and increased risk born by developers.

Online distribution of games was, in the mid-2000s, an attractive means for developers to reach consumers and monetize their games. Developers in the Netherlands turned to both mobile and PC forms of distribution over the mid to late 2000s. Mobile platforms, such as the Apple AppStore, were relatively unpopulated when the store was first launched in 2008, and thus developers could gain visibility and increase sales by releasing a game there. Developers active during this time report the ease of accessing digital platforms and new opportunities provided by digital platforms as a reason to release games there. One developer reflects that the ability to forego publishers was one reason to turn to digital distribution platforms, “we were speaking to other companies in the field, you know, seeing them succeed on the digital platforms, making also a lot of money on those platforms because the publishers didn’t take this huge cut and we thought, ‘Okay, let’s try this. Let’s see if we can make a game on this on these digital platforms.’” Here, digital distribution allowed this developer to forego a publishing deal, allowing the developer to keep more of the sales for themselves. The low barriers to entry into the industry, and ease of access to consumers, were exploited by other developers. Industry reports indicate that the number of developers active in the Dutch game industry ballooned from a handful of firms to over eighty firms by 2012.<sup>38</sup>

While online distribution initially lowered barriers to entering the game industry, over time, market conditions have become saturated and highly competitive. Digital distribution platforms, particularly for mobile and PC games, have become increasingly populated, with developers facing greater difficulties in capturing the attention of potential consumers. One



developer who initially had close ties to a distribution platform reports these ties dissipating over time, “we were very close with Valve when we started . . . but a few years later, Valve exploded as well. There were just so many developers on there, so we were just one of many other developers. Instead of having a preferential treatment, we were just one of them.” The experience of this developer reflects the difficulties that arise due to a loss of preferential treatment by the platform as the platform grows in popularity. Other developers report issues communicating with platforms regarding release timing and general issues regarding visibility. These issues can be financially devastating for developers, as some games may take months, if not years to complete, often involving large teams of people. For developers that self-fund the development of their games, heightened competition and opaque platform policies can be particularly devastating, as financial risk lies with the developer alone.

Thus, over time, online distribution has negatively impacted conditions for game developers in the Netherlands due to the steep competition developers face on these platforms. In addition, by allowing developers to forgo relationships with publishers, developers often take on financial responsibility for game development, as publishing deals often fund the production process. At the same time, the example of digital distribution shows that platformization is, to some degree, a locally contingent process. Latent talent from the hobbyist scene and a handful of preexisting game companies in the Netherlands fed rapid entry of developers into the industry when digital distribution platforms were first introduced in the mid-2000s. Lack of access to publishers in the Netherlands, in part, fueled the popularity of digital distribution among Dutch game developers – as platform distribution strategies were a means to access consumers directly, and forego publishing deals.

#### *Managing Platform Uncertainty:*

##### *Re-embedding Strategies and Reconfiguring Uncertainty*

In response to increasingly difficult conditions on digital platforms, developers in the Netherlands have adopted several re-embedding strategies on both an international and national scale. In response to financial risk and uncertainty in platform markets, three broad strategies emerge among Dutch game developers. With increasingly uncertain conditions, developers either pursue (1) merger and acquisition, (2) independent studio status, which sometimes entails unstable connections with publishers, self-financing of games, and informalization, or (3) a turn to B2B markets, either providing specialized gaming services, or applying games to other industries in the so-called serious game sector. These strategies are often contingent upon policy support and conditions within the local game industry, or represent the embedding of developers either more firmly in transnational networks for publishing and distribution.

First, a small group of developers have successfully pursued first-party status through merger and acquisition by a platform company or have developed close relationships with platform or publisher intermediaries. These developers are thus well embedded within game industry business networks at the transnational level. As a result, they experience less financial risk and uncertainty in platform markets as they are backed by a platform or publisher and often have access to privileged industry information. This is not to say that they are immune to industry pressure to overwork or that workers experience decent working conditions. Rather, the level of uncertainty that the studio faces is mitigated by financial support from

the financing platform or publisher. Most developers in this category are not acquired by the platform or publisher intermediary but rather maintain close connections with platforms such as Steam, the Apple AppStore, and more recently Netflix. From a management perspective, these relationships take considerable effort to maintain and can represent a significant investment by the development studio to attend industry conferences and events.

Here, local contexts, such as the integration of developers in national funding schemes and the rise of support organizations in the game industry, have helped developers access international networks. Support organizations manage national trade exhibitions and facilitate connections with publishers and platforms for particularly promising developers. These characteristics of the Dutch game industry facilitate transnational networking by developers.

In the second category are the many third-party independent game developers in the Netherlands that have loose, arm's length relationships with both platforms and publishers. As a result of distant relationships with intermediaries, these indie developers often lack crucial information and financial support, resulting in considerable precarity. These developers are thus internationally oriented but not stably embedded within the international game industry. As illustrated by the experiences of Dutch game developers, those who have close relationships with platforms and publishers can become disembedded from these networks if contracts are not renewed or if the relationship dissipates over time. To compensate for financial uncertainty caused by the lack of funding, these developers are incentivized to work in informal ways. For example, developers that self-finance games are often hard hit by the failure of a single game, which can result in issues financing the next game, laying off staff, asking staff to work unpaid, and in some cases bankruptcy and failure of the firm. However, the risks of self-financing differ between developers working on relatively complex games as compared to developers that create less complex games, perhaps reusing assets and formats to reduce costs of production.

Third, a significant number of Dutch game developers have generated practices that forego producing games for major platforms altogether. These companies either turn to service provision in the entertainment sector or apply games to non-gaming industries. In both categories, these companies often rely upon local collaboration and partnerships. Some companies can internationalize their activities after building competencies in collaborative and service-oriented work. Despite the relative flexibility these companies have working across industries, some of these firms report precarity due to the ad hoc project-based nature of their work. Projects based on social networks can be particularly stressful for those who lack social capital or other means of access to these networks. In addition, investing in new business models can represent high costs for developers, especially those already experiencing precarious conditions.

In terms of the importance of local context for diversification to service provision, a strong base of related industries and policy support has helped developers to diversify. Serious game developers often work across media industries and even in sectors such as healthcare, shipping, education, and human resource management. Investment and policy in serious games and innovative gamification have also opened opportunities for some developers in this space. This suggests that locally contingent conditions, such as policy support and related industries, facilitate the diversification of developers into service provision and serious games.

## Discussion and Conclusion

This paper has looked at how local contexts shape processes of platformization and experiences of precarious and contingent work in the Dutch game industry. The paper argues for an embedded approach to research on gamework, which highlights local social and institutional conditions and the opportunities for professionalization that they provide. The findings of this research suggest that embeddedness remains important for developers active on digital distribution platforms as (1) local contexts condition entry via digital distribution platforms and (2) national policy business networks in the Netherlands condition opportunities for professionalization and thus precarity experienced by developers due to platformization. These findings build upon previous research on the role of socio-cultural context in the local cultures of game production, suggesting that industrial context plays an important role in shaping cultures of gamework and working conditions.<sup>39</sup> The case of the Netherlands indicates that platformization is, to some degree, a historically and geographically contingent process – closely tied to coevolution of local conditions for professionalization and broader industry structures and connections at an international scale.

Existing literature emphasizes the unique forms of precarity experienced by cultural producers in platform contexts. Less research has focused on the spatial characteristics of precarious work in platformized industries. In line with the existing research, this study finds that digital distribution platforms drive an influx of developers into platform markets, resulting in uncertain conditions for developers due to increased competition and related risks in these markets.<sup>40</sup> However, the findings also suggest that developers pursue strategies to embed themselves more firmly both in transnational business networks with platforms and publishers and in local networks, to mitigate the impact of uncertainty in platform markets. Here, geography continues to play an important role in providing policy support and diversification opportunities that mitigate risk for developers active on digital distribution platforms. These strategies and support structures are often a product of pre-existing business networks and related industries in the regional and national context, lobbying efforts by actors within the game industry, and the decisions of policymakers to support fledgling industries.

Second, these findings suggest that while digital distribution platforms have fundamentally altered the geography of distribution and thus production in the Dutch game industry, digital platforms may complement and even support preexisting power structures in the game industry.<sup>41</sup> Rather than displace publisher intermediaries, digital distribution has created conditions in which developers may either self-publish games or work with publishers. This has increased the financial risk that developers bear and has led to the informalization of working conditions for these developers, while the professional class of developers continues to work with publishers and squarely within the formal bounds of the industry. These findings suggest that both local conditions and transnational industry connections continue to shape access to resources and opportunities for professionalization for developers active on digital distribution platforms.

In conclusion, this paper argues that the concept of embeddedness, in social, institutional, and geographic contexts, can provide a productive lens for research on platformization and precarity in the game industry. This approach moves beyond the study of the local as

socio-cultural context and argues that institutional and industrial context also shape opportunities for professionalization and thus experiences of precarity in the game industry. The findings show that institutional contexts, policy, and business networks can condition the trajectory of platformization and provide meaningful access to resources for platform-dependent developers. This suggests that the impact of different forms and scales of embeddedness on precarity deserves greater attention by media industries scholars interested in working conditions in the game industry. Digital platforms represent a fundamental shift in the landscape for cultural entrepreneurship and creative industries more broadly. Approaches which account for different types of embeddedness could extend research on platformization to other national and sub-national contexts, but also to other media industries. Through this lens, it is possible to better understand how experiences of platformization and precarity are shaped by complex, multiscalar processes at the industry and local level.

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## Appendix: List of interviewees

Interviewees (32 in total)

Code	Long form	Description
E1	Entrepreneur 1	triple A game developer
E2	Entrepreneur 2	indie game developer
E3	Entrepreneur 3	indie game developer
E4	Entrepreneur 4	indie game developer
E5	Entrepreneur 5	indie game developer
E6	Entrepreneur 6	serious game developer
E7	Entrepreneur 7	serious game developer
E8	Entrepreneur 8	serious game developer
E9	Entrepreneur 9	PC/console game developer
E10	Entrepreneur 10	triple A executive
E12	Entrepreneur 12	indie game developer
E13	Entrepreneur 13	casual game developer
Em1	Employee 1	game producer
Em2	Employee 2	interaction designer
Em3	Employee 3	HR representative
Em4	Employee 4	business development
Em5	Employee 5	indie game developer
Em6	Employee 6	indie game developer
Em7	Employee 7	freelance game artist
Em8	Employee 8	game artist
M1	EE member 1	support organization
M2	EE member 2	game industry services
M3	EE member 3	recruiter
M4	EE member 4	support organization
M5	EE member 5	support organization
M6	EE member 6	support organization
M7	EE member 7	education
M8	EE member 8	education
M9	EE member 9	heritage institution
M10	EE member 10	education
M11	EE member 11	support organization