Modding

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Modding, originally from modifying, refers to a practice of changing a game by creating modifications to it. Modifications range from very simple edits to "total conversions" and entirely new games. Modding as a phenomenon questions any "fixed" idea of a game by illustrating how games operate as launchpads for player creativity. Game modding draws on the history of software hacking and in this respect modding can take forms that are seen as resistant or illegitimate. At the same time, modding is often invited and supported by game companies, leading to constant negotiations between the game industry and the player community.

Introduction

Modding, originally from modifying, refers to a practice of changing a game by creating modifications to it. While this can mean bug-fixing or patching, in most cases modding is a player-centered act of altering the game or adding content to it (Poor, 2014). Modding can affect many different elements of the game and modifications range from very simple edits to "total conversions" that introduce entirely new modes and worlds to the game.

Where 'modification' or 'mod' may sometimes invite a fairly limited technical definition, 'modding' as an activity requires a more culturally and economically aware description. Game modding draws on the history of software hacking and in this respect modding is sometimes seen as resistant or illegitimate. At the same time, modding is often invited and supported by game companies, leading to constant negotiations between the game industry and the player community.

When a mod is installed, parts of the original game software are replaced or extended. The fact that many current-day games rely heavily on mods highlights how modding as a phenomenon challenges our ideas of what games are and how fixed they are. Famous games that began as mods include for example *Counter-Strike* for *Half-Life* (1998), *Team Fortress Classic* for *Quake* (1996), *DOTA 2* for *Warcraft III* (2002), or *DayZ* for *ARMA 2* (2009).

History of Modding

Popular accounts of modding often begin the story from the early 1990s first-person shooter games like *DOOM* (id Software, 1993). One can, however, argue that the idea of modifying games is as old as gaming itself. All game systems have room for manipulation and free play, inviting players to explore, bend and change the elements of the game. In this sense, the will to mod can be seen as an inherent characteristic of play. In fact, for several millennia, games mostly remained in the public domain – communally played, modified and redesigned (Sotamaa & Wirman, 2015).

The first computer games were also actively hacked and modified. Such oft-mentioned landmarks as *Tennis for Two* (1958) or *Spacewar!* (1962) were projects motivated by curiosity, breaking away from the paradigmatic serious uses of early computers. *Spacewar!*, for example, was based on clever reuse of existing code and hacked controls. The game was also extensively modified and ported to new platforms in the following years, embodying the open culture of early coders and hackers. As importantly noted by Sihvonen (2011), also 1970s text adventure games that were modifiable by nature and 1980s industry-released editors and builders like *Pinball Construction Set* (1982) preceded the first-person shooter (FPS) history of modding.

Arguably, many things had happened already before the "FPS history of modding" had started. Still, games like id Software's *DOOM* (1993) introduced some aspects that defined the modern modding culture as we know it. The success of the game among modders was based on a conscious restructuring of the game data: from the start, the game code was designed with replaceable content in mind. The company also released documentation of the file formats, encouraging players to explore and expand the game.

In the case of *DOOM*, the overall business model of the game was tied to the constant flow of player-created content. To access and run the best mods, the players had to first pay for the original game. This way, the products of the modding community also significantly extended the shelf-life of the game. At the same time, the restructuring of the game's core features created a new centerpiece that orchestrated the key dynamics of the game. This part of the game came to be called the "game engine." Soon the developers realized that the company could create another successful business around the game engine. By repackaging it into an independent product, the game engine could be sold to other developers interested in creating similar and derivative games (Sotamaa & Wirman, 2015).

While many things have obviously changed since the 1990s, computer game modding is dominantly still dependent on mass-market games and commercial game engines. This is also one important aspect that distinguishes modding from some of the earlier game-cultural forms of hobbyist creativity. In the past few years, accessible development tools and digital distribution channels have both diversified the forms of informal game development (Keogh, 2019) and made modding even more dependent on particular platforms and business models.

History of the Term

Similar to many other terms routinely used by current-day game scholars, the word 'modding' was first created by players and hobbyists. As Unger (2012, pp. 513-4) points out, 'mod' and 'modding' are terms "coming out of the community of modders, rather than from academic discourse." While the term modding was in everyday use in the 1990s PC game culture, it

took a while for academics to adopt the concept. Still in 1998, in one of the first scholarly texts about PC modding, Anne-Marie Schleiner described the phenomenon as follows:

[P]atches range from a simple repair of a programming bug to intricate new game scenarios, replacing the characters, sounds, architecture and/or game challenges in the original games. The increasing popularity of these once unsanctioned game hacks has led some gaming companies, like the producers of *Quake* and *Marathon*, to capitalize on the trend and subsume this once renegade practice into their marketing strategy, bundling patch-making software with their official games. (Schleiner, 1998)

While Schleiner's short piece about player-made alterations to popular PC games was obviously discussing modding, she still preferred terms like 'patches,' 'addons' and 'hacks.' Huhtamo (1999) followed a similar terminology when contextualizing 'game patches' to the long history of tactical media.

Only a few years later, the vocabulary had changed. In his study exploring the value of modding, Hector Postigo (2003) informed his readers that "[h]obbyist groups that develop modifications to commercial games [...] are generally known on the Internet as 'modders', and whose modifications are called 'mods'." Around the same time, Sue Morris (2003) argued that in the case of FPS games neither developers nor players could be solely responsible for what was considered the game. Furthermore, she pointed out how "[m]od development is now the most common route of entry into professional game design" (Morris, 2003).

In the following years, modding was conceptualized, for example, as participatory culture (Banks, 2003), co-creative media (Morris, 2003), precarious playbour (Kücklich, 2005) and non-market game production (Nieborg & van der Graaf, 2008). Poremba (2010) extended the use of the term by connecting modding to the traditions of art and art critique, whereas El-Nasr and Smith (2006) explored the pedagogic potentials of modding.

Culture of Modding

In his study of PC game modding, Postigo (2007) identified three central aspirations for mod making. Postigo argued that modder activities can be seen as 1) an artistic endeavor and a creative outlet, 2) an attempt to increase the enjoyment of the game and 3) a way to acquire a job in the game industry. In a somewhat similar manner, Sotamaa's (2010) study of *Operation Flashpoint* (Bohemia Interactive, 2001) identified five different passions for modding: playing, hacking, researching, artistic work and cooperation.

Similar to more general scholarly explorations of game cultures, gender concerns and specificities have been highlighted in some writings about mods. Average modding communities are still considered to be male-dominated and to carry similar challenges regarding gender bias and segregation, sometimes sexism, as hacker groupings traditionally do. At the same time, Schleiner (2001) already approached game modifying as a practice that has the potential to allow more diverse gender representations in games. For example, the studies of *The Sims* (Maxis, 2000) and its sequels have shed light on the practices of female modders and skinners (Sihvonen, 2011; Wirman, 2014). While the legacy of the white male "hacker ethics" is clearly visible in some modding scenes, the spectrum of modding activities and the related industry operations seem to have extended over time.

The question of who benefits from modding has received a lot of attention both from the modder community and the scholars studying it. Mod makers have often utilized well-known characters and other popular cultural elements in their projects, challenging the strict end-user license agreements that determine the permitted use of the commercial game software. As a consequence, many modders have received suspension requests and cease and desist letters from game publishers, platform holders and third-party IP holders who have not appreciated these manifestations of remix culture.

At the same time, it is clear that the games industry has not been very successful in creating any meaningful forms of compensation for modders. As Joseph's (2018) study focusing on the controversy around the monetization of Skyrim mods highlights, allowing mod makers to sell their mods on current-day digital distribution platforms does not in any simple way guarantee a positive player community response. As Banks and Humphreys (2008) have argued, productive player labor can operate as a dynamic wrecker and an agent of change that unsettles existing industrial knowledge regimes. Instead of either uncritically celebrating players' achievements or solely lamenting the game industry's selfish strategies, more focus should be placed on how power moves in this complex network of actors.

Current Use of the Term

As discussed above, modders present a diverse set of skills, practices and attitudes. In a similar fashion, the results of modding vary significantly in terms of how, and to what extent, they modify or extend the original game. As scholars have noted in the past two decades, there are major differences between different modding scenes in terms of which elements of the game are most actively modified. Differences are connected to at least 1) characteristics of the game, 2) conventions of the genre and 3) affordances of the platform. An average first-person shooter game (FPS), a real-time strategy game (RTS) and a massively multiplayer online role-playing game (MMORPG) will cater to a very different modding culture. Also, the popular examples of modding often arise from PC gaming culture, whereas the console environment, for example, has provided less access and room for modifications. All this has led to more nuanced and case-specific uses of the term.

Scholars like Melanie Swalwell (2012) have reminded us that still in the microcomputer era, hardware and software modding went very much hand in hand. While modding is primarily associated with game software these days, modding is at the same time importantly connected to the material pleasures of embodied practice. Things like PC case mods and other forms of customized hardware operate as material instantiations and enhancements of gaming, extending the gaming experiences beyond the immediate gaming instances (Simon, 2007). Another example is the physical mod chips that enable homebrew developers to bypass the regulations of the console manufacturers and to create and run games of their own (O'Donnell, 2013).

Recent years have witnessed a few attempts to extend the idea of modding beyond the domain of digital games. In their study of drinking games, Sotamaa and Stenros (2019) remind us about the two-way nature of the relationship: while players may modify games, games also actively modify their players. In their study of situated drama, Kirschner and Kirschner (2020) argue that the concept of modding can become a viable tool for the design and analysis of participatory theater experiences. Finally, Glenhaber's (2021) study of social media modding shows how the theorizations created around game modding can "have

broader applicability for understanding relationships between platform owners and platform users in general."

Summary: Significance of Modding for Game Studies

On a fundamental level, one can argue that the productive engagement of players is a constitutive element of all games. Modding as a phenomenon illustrates how a digital game is not only a professionally produced piece of software, but often invites and even requires creative effort from a variety of actors. While the game industry has its means to steer and delimit player activities, at the same time modding has the potential to create a more diverse and culturally enriched medium.

While modding and other forms of emergent player behavior are repeatedly used to highlight particular aspects of game culture, these activities are often still excluded when scholars discuss the core definitional questions of game studies. As pointed out by Taylor (2007), rather than seeing players and their creative practices as a specialized or marginal subject for game studies, they should be considered central to the definitions.

A game is often seen as a fixed and final product that is designed to be consumed by the player. Modding as a phenomenon has questioned this idea by showing in practice how digital games can also be seen as tools or raw material for player creativity (Unger, 2012). Modding also forces us to rethink who makes games and who owns them. By illustrating the participatory and co-creative sides of game culture, modding reminds us how we need more studies exploring game production and player cultures in tandem. While games may always have been "launchpads for their players' creative appropriation and self-expression" (Sihvonen, 2011, p. 57), the continuous change of the game industry challenges us to frequently update our perceptions of modding.

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